



Sefton Local Plan
including Strategic Site
Allocation Habitats
Regulations Assessment

Habitats Regulations
Assessment including
Appropriate Assessment

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Prepared for: Sefton
Metropolitan Borough
Council

BASINGSTOKE



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1. NON-TECHNICAL SUMMARY

The Conservation of Habitats & Species Regulations 2010 (as amended) requires local authorities to undertake assessment of the implications of their plans for internationally important wildlife sites. Internationally important wildlife sites are Special Areas of Conservation (sites designated for habitats and species other than birds), Special Protection Areas (sites designated for birds) and Ramsar sites (wetlands of international importance). There are a range of these sites within and around Sefton Borough. This process is often called Habitats Regulations Assessment and consists of two key elements, an initial Test of Likely Significant Effects process to determine Likely Significant Effects and a more detailed stage called Appropriate Assessment. This document sets out both stages.

A range of possible impact pathways (ways in which the development set out in the Local Plan can affect internationally important sites) have been scrutinized. Potential impact pathways examined include:

- recreational pressure (both disturbance of wildlife and potential damage to habitats);
- loss of important associated habitat outside the designated sites themselves;
- water quality pathways (e.g. pollution); and,
- pollution through changes in air quality.

These relate to the following internationally important wildlife sites where potential impact pathways exist:

- Sefton Coast Special Area of Conservation (SAC);
- Ribble & Alt Estuaries Special Protection Area (SPA) and Ramsar site;
- Liverpool Bay Special Protection Area (SPA);
- Mersey Narrows & North Wirral Foreshore Special Protection Area (SPA) and Ramsar site; and,
- Manchester Mosses Special Area of Conservation (SAC).

The purpose of the assessment was to identify possible impact pathways that result from the Local Plan policies that could lead to negative likely significant effects on the integrity of a European designated site. This assessment provides recommendations where required to ensure that the Local Plan contains policies to enable the delivery of any required measures that are necessary to address possible impacts, particularly if they arise due to development throughout the Borough as a result of the Local Plan. This assessment also identifies Strategic Allocations that could lead to site-specific effects on the European designated sites (in other words, where individual site allocations could lead to an adverse effect without mitigation, as opposed to the total cumulative level of housing growth across the borough). Where possible site-specific effects were identified, recommendations were made for further studies that would need to be undertaken before the sites are given planning permission.

Local Plan policies screened in and/ or discussed in detail within this document are as follows:

Sustainable Development:

- Principles of Sustainable Development

Meeting Sefton's needs:

- MN1: Housing and employment requirement
- MN2: Housing, employment and mixed use allocations
- MN3: Land east of Maghull
- MN5: Land south of Formby Industrial Estate
- MN6: Land at Brackenway, Formby
- MN7: Sefton's Green Belt
- MN8: Safeguarded Land

Economic development and regeneration:

- ED1 The Port and Maritime Zone
- ED2: Development in Town Centres, District Centres, Local Centres and Local Shopping Parades (and other locations)
- ED4: Mixed Use Areas
- ED5: Tourism
- ED6: Regeneration Areas

Housing and communities:

- HC5: Planning for Gypsies and Travellers
- HC7: Education and care institution sites in the urban area

Infrastructure:

- IN2: Transport

A quality, healthy environment for Sefton:

- EQ1: Strategic Policy Planning for a healthy Sefton
- EQ3: Accessibility
- EQ8: Managing flood risk and surface water

Natural and heritage assets:

- NH6: Urban golf courses

Of the potential allocated sites the following were identified as requiring further investigation at the planning application stage before it could be determined that they would not lead to an adverse effect on any internationally important wildlife sites (or to determine the scale of mitigation required to address such an effect). The principal pathway was associated with possible loss of supporting habitat for pink-footed geese and/ or whooper swans. Avoidance or mitigation of which would potentially need to be part of the planning applications for these sites. The sites are:

- MN2.4: Land at Moss Lane, Churchtown South
- MN2.8: Former Ainsdale Hope High School, Ainsdale
- MN2.12: Land north of Brackenway
- MN2.13: Land at West Lane, Formby
- MN2.17: Land at Altcar Lane, Formby
- MN2.18: Powerhouse site, Phase 2, Formby
- MN2.19: Land at Andrew's Close, Formby
- MN2.23: Land at Southport Old Road, Thornton
- MN2.24: Land at Holgate, Thornton
- MN2.28: Land North of Kenyon's Lane, Lydiate
- MN2.29: Former Prison Site, Park Lane, Maghull
- MN2.30: Land East of Waddicar Lane, Melling
- MN2.31: Wadacre Farm, Melling
- MN2.32: Land South of Spencers Lane, Melling
- MN2.33: Land at Wango Lane, Aintree
- MN2.41: Former St Wilfred's School, Bootle
- MN2.46: Land East of Maghull
- MN2.49: Land south of Formby Industrial Estate
- MN8.1: Land north of Lambshear Lane, Lydiate
- MN2.9: Former St John Stone School, Meadow Lane, Ainsdale
- MN2.10: Meadows ATC, Sandbrook Road, Ainsdale
- Southport old Links Golf Course
- Hesketh Golf Course
- HC5.4: Land at New Causeway, Formby
- HC5.3: Land at Plex Moss Lane, Ainsdale

Full details of the Test of Likely Significant Effects are shown in Appendix 1 (site allocations) and Appendix 2 (policies). Recommendations for each European designate site are summarised in the final sections of Chapters 6-10. The analysis of proposed site allocations which were ultimately not taken forward is contained in Appendix 3, for reference.

2. INTRODUCTION

2.1 Background to Habitats Regulations Assessment

URS has been appointed by Sefton Metropolitan Borough Council (“the Council” or “Sefton Council”) to assist in undertaking a Habitats Regulations Assessment (HRA) including Appropriate Assessment (AA) of the potential effects of the Local Plan, on the Natura 2000 network and Ramsar sites. Between May 2013 and January 2014 URS undertook an initial Test of Likely Significant Effects of the proposed local plan and strategic site allocations. Between November 2014 and January 2015 URS undertook a new HRA of the amended Local Plan policies and strategic site allocations. This included consultation with Natural England and Natural Resources Wales. The responses from these bodies have been factored into this version of the document.

The HRA is required to evaluate the Likely Significant Effects of the Local Plan on internationally important wildlife sites within the zone of influence, and determine if there is a relevant connecting pathway.

The objective of this assessment is to:

- Identify any aspects of the Local Plan that would cause an adverse effect on the integrity of Natura 2000 sites, otherwise known as European sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and, as a matter of Government policy, Ramsar sites¹), either in isolation or in-combination with other plans and projects; and,
- To advise on appropriate policy mechanisms for delivering mitigation where such effects are identified.

If the Local Plan cannot be screened out as being unlikely to lead to significant effects, then an Appropriate Assessment (AA) is required in order to devise measures that can be incorporated into the Local Plan which will enable the Council in their role as ‘competent authority’ to conclude that no adverse effect on the integrity of internationally important wildlife sites will result.

The Habitats Regulations 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 sites² are given equivalent status. For the purposes of this assessment candidate SACs (cSACs), proposed SPAs (pSPAs) and proposed Ramsar (pRamsar) sites are all treated as fully designated sites. In this report we use the term European sites to refer collectively to the sites listed in this paragraph.

Throughout this document the phrase Habitats Regulations Assessment (HRA) has been used to refer to the overall process required by The Conservation of Habitats and Species Regulations (2010) (as amended), while Appropriate Assessment (AA) is used for the specific stage of the process in which it is necessary to determine adverse effects on the integrity of European sites. The need for Habitats Regulations Assessment (HRA) and Appropriate Assessment (AA) is set out within Article 6.3 of the EC Habitats Regulations 1992, and transposed into British law by the Conservation of Habitats and Species Regulations 2010 (Box 1). The ultimate aim of the Regulations is to “*maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest*” (Habitats Regulations, 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.

¹ Wetlands of International Importance designated under the Ramsar Convention 1979

² Wetlands of International Importance designated under the Ramsar Convention 1979

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 (as amended)

“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 ... must make an appropriate assessment of the implications for the site in view of that 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”.

Regulation 61 (1)

Chapter 3 of this report explains the HRA/AA process and methodology in more detail, identifying the scope of the assessment (i.e. which European Sites have been considered) including the rationale for scoping out some European Sites early in the process. The ‘in-combination’ scope is also explained, with a brief description of key plans and policies which have been considered. Chapter 4 explores the relevant pathways of impact resulting from the scale of development that will be delivered in Sefton. Chapter 5 summarises the findings of the HRA exercise undertaken for this report, incorporating Test of Likely Significant Effects of potential sites for allocations, Local Plan objectives and strategic policies, as well as the Test of Likely Significant Effects of the 43 detailed policies carried out as part of this phase of work.

Chapters 6 to 10 are divided up into one Chapter for each European site, except where multiple sites overlap in a particular geographic area (e.g. Ribble and Alt Estuaries SPA and Ramsar sites). Each Chapter begins with a consideration of the interest features and ecological condition of the site and environmental process essential to maintain site integrity. Those policies which have been screened in and require further consideration within the Local Plan are discussed with respect to each European Site, and an AA is then carried out including recommended changes to policy wording. The summary and conclusion of the HRA/AA is presented in Chapter 11, including a summary of all recommended changes to the Sefton Local Plan for compliance with the Habitats Regulations.

2.2 Sefton Local Plan

The Sefton Local Plan is a long term planning document that will set the framework for future development in Sefton over the plan period to 2030. Once adopted, the Local Plan will be used as the basis for determining individual planning applications and for other decisions taken under the Planning Acts.

The Local Plan is intended to:

- make sure that the Council provides for development to meet the needs of communities, provide a policy framework for making decisions on planning applications and set priorities for investment in employment, housing and infrastructure.

The Sefton Local Plan will seek to deliver the following key development:

- the provision of 11,070 homes during the period of 2012-2030 delivered at an annual average of at least 615 new dwellings a year (net of demolitions). Most of this is provided on identified housing allocations. This will be staged at 500 dwellings per annum from 2012 - 2017 and 660 dwellings per annum from 2017 – 2030.
- supporting urban regeneration, priorities for investment and economic growth primarily through five Strategic Employment Locations spread out across Sefton.
- significant development and restructuring in the Port and Maritime Zone including the possible expansion of the operational port area onto the Seaforth Nature Reserve (part of Mersey Narrows and North Wirral Foreshore SPA/Ramsar) and increase in surrounding road capacity;
- development of shopping, leisure, culture and other services in Sefton's towns and local centres including leisure, recreation and tourism at Southport Seafront; and,
- development of green infrastructure along the Coast and leisure facilities at Crosby Marine Park and especially Southport Seafront ;

It is these key aspects of the Local Plan that are therefore subject to HRA in this document.

It should be noted that the population of Sefton has declined slowly from its peak of 300,100 in 1981. In 2012 the population was 273,697³. For the first time in 30 years this decline has stabilised and the population is now projected to rise to about 278,873, an increase of approximately 5,200 (i.e. 2%) by 2031⁴. Sefton has an ageing population. It is projected that by 2031 the number of people over 65 will increase to 22,000 (37.6% increase to 2031), the number of people over 85 will increase to 6,900 (increase of 87.0%), and the number of people of working age will decrease to 17,000 (11.4% decrease).

An ageing population may carry with it some increase in impacts such as recreational pressure through the increased leisure time available.

³ Sections 6.6 to 6.10, draft NLP report

⁴ ONS 2012 based sub national population projections for Sefton (published 21/3/12)

3. METHODOLOGY

3.1 Introduction

This section sets out our approach and methodology for undertaking the Habitats Regulations Assessment (HRA). HRA itself operates independently from the Planning Policy system, being a legal requirement of a discrete Statutory Instrument. Therefore there is no direct relationship to the National Planning Policy Framework and the ‘Tests of Soundness’.

3.2 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 guidance⁵ (described in greater detail in Chapter 3) 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:

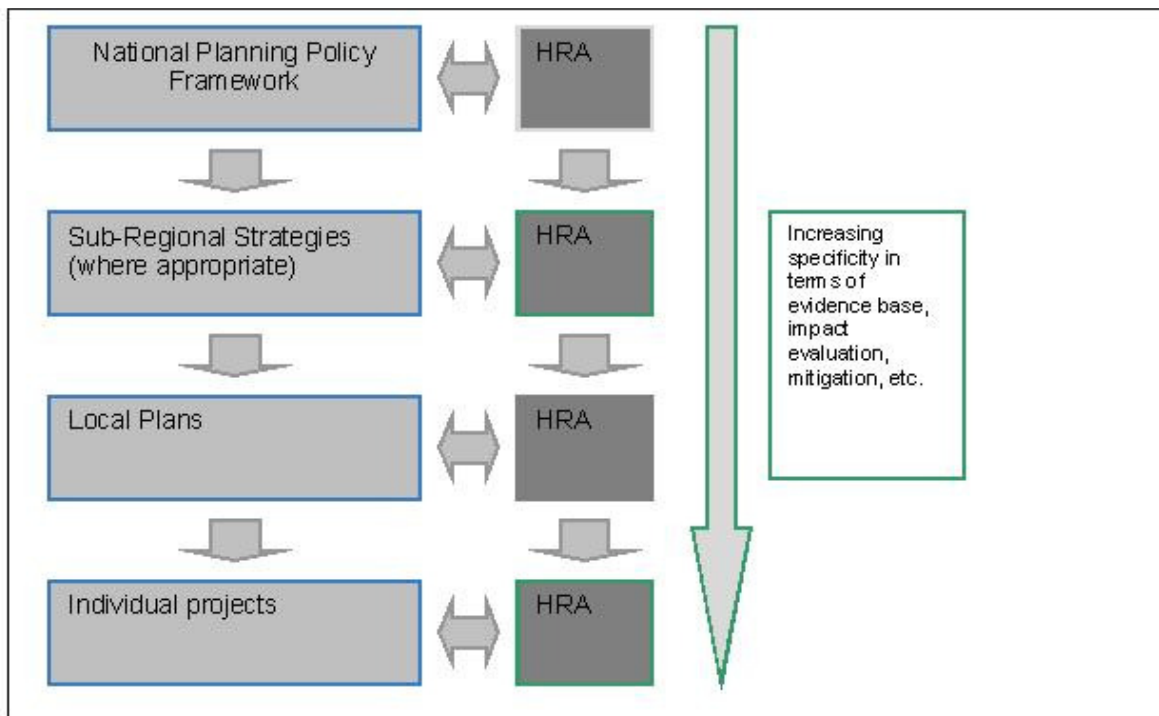
“The comprehensiveness of the [Appropriate] assessment work undertaken should be proportionate to the geographical scope of the option and the nature and extent of any effects identified. An AA need not be done in any more detail, or using more resources, than is useful for its purpose. It would be inappropriate 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.”

In other words, there is a tacit acceptance that AA can be tiered and that all impacts are not necessarily appropriate for consideration to the same degree of detail at all tiers (Box 2).

For a Local Plan 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 new housing sites, including layout of greenspace and type of development to be delivered in particular locations, yet these data will not be decided until subsequent stages.

The most robust and defensible approach to the absence of fine grain detail at this level is to make use of the precautionary principle. In other words, the plan is never given the benefit of the doubt (within the limits of reasonableness); it must be assumed that a policy/measure is likely to have an impact leading to a significant adverse effect upon a European site unless it can be clearly established otherwise.

⁵ CLG (2006) Planning for the Protection of European Sites, Consultation Paper



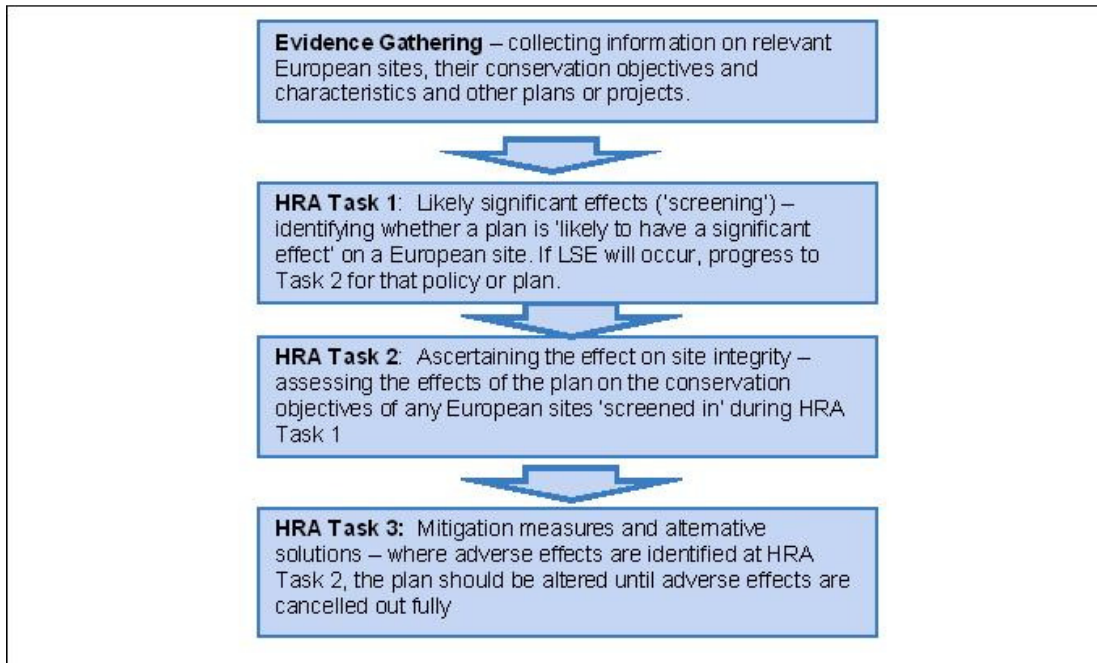
Box 2: Tiering in HRA of Land Use Plans

3.3 The Process of HRA

The HRA is being carried out in the continuing absence of formal central Government guidance. CLG released a consultation paper on AA of Plans in 2006⁶. As yet, no further formal guidance has emerged from CLG. However, Natural England has produced its own informal internal guidance and Natural Resources Wales has produced guidance for Welsh authorities on ‘the appraisal of plans under the Habitats Regulations’ as a separate guidance document aimed at complementing and supplementing the guidance/advice provided within 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 HRA.

Box 3 below outlines the stages of HRA according to current draft CLG guidance (which, as government guidance applicable to English authorities is 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.

⁶ CLG (2006) Planning for the Protection of European Sites, Consultation Paper



Box 3: 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 Local Plan. The four staged approach shows for simplicity a basic progression from step to step, but it is quite usual for the process to be more iterative and cyclical, with each stage being fed back to the local authority to inform further amendments to the plan which are then re-assessed for implications on European sites. The following process has been adopted for carrying out the subsequent stages of the HRA.

3.4 Task One: Test of Likely Significant Effect

The first stage of any Habitats 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?”

In evaluating significance, URS have relied on professional judgment 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 draft 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 (see Box 3 for a summary of this ‘tiering’ of assessment).

An outline of the various phases of Test of Likely Significant Effects which have been undertaken is given in Chapter 3.

3.5 Task Two & Three: Appropriate Assessment and Mitigation

With regard to those European sites where it was considered not possible to ‘screen out’ the Local Plan Preferred Option without detailed appraisal, it was necessary to progress to the later ‘Appropriate Assessment’ stage to explore the adverse effects and devise mitigation.

The steps involved are detailed in Box 4.

Box 4. The steps involved in the Appropriate Assessment exercise undertaken for the Local Plan

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. 2. 3. 4. 5. 6. | <p>Explore the reasons for the European designation of these sites.</p> <p>Explore the environmental conditions required to maintain the integrity of the selected sites and become familiar with the current trends in these environmental processes.</p> <p>Gain a full understanding of the plan and its policies and consider each policy within the context of the environmental processes – would the policy lead to an impact on any identified process?</p> <p>Decide if the identified impact will lead to an adverse effect.</p> <p>Identify other plans and projects that might affect these sites in combination with the Plan and decide whether there any adverse effects that might not result from the Plan in isolation will do so “in combination”.</p> <p>Develop measures to avoid the effect entirely, or if not possible, to mitigate the impact sufficiently that its effect on the European site is rendered effectively inconsequential.</p> |
|--|---|

In evaluating significance, URS has relied on the professional judgment of internal HRA specialists as well as stakeholder consultation.

The level of detail concerning developments that will be permitted under land use plans is highly unlikely to be sufficient to make a detailed quantification of adverse 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.

When undertaking this part of the assessment it is essential to bear in mind the principal intention behind the legislation i.e. to ensure that those policies or site allocations which in themselves have minor impacts are not simply dismissed on that basis, but are evaluated for any cumulative contribution they may make to an overall significant effect. In practice, in combination assessment is therefore of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential (i.e. not a Likely Significant Effect (see Box 3).

3.6 Scope of the HRA

The scope of the HRA is as shown in Table 1. The location of these European Sites is illustrated in Figure 1. Figures 2.1, 2.2., and 2.3 show the site allocations in relation to European Sites and Sefton. Further details regarding the interest features and vulnerabilities of the European sites included within the scope of the HRA are given in Chapters 6-10. 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.

Table 1: Physical scope of the HRA

European site	Reason for inclusion
Sites within Sefton; Potential for significant effects	
Sefton Coast SAC	Located within Sefton; potential pathways exist through: <ul style="list-style-type: none"> • recreational pressure, • disturbance to qualifying species, • reduction in water quality, • air quality, • coastal squeeze, and • loss of habitat/supporting habitat outside the SAC boundary.
Ribble and Alt Estuaries SPA and Ramsar site	Located within Sefton; potential pathways exist through: <ul style="list-style-type: none"> • recreational pressure, • disturbance to qualifying species, • coastal squeeze, • loss of supporting habitat outside of the SPA/Ramsar boundary, • reduction in water quality, • deterioration in air quality, and • direct loss of habitat through mineral extraction.
Mersey Narrows & North Wirral Foreshore SPA and Ramsar site	A small part of the site at Seaforth Nature Reserve is located within Sefton borough (immediately south of Ribble and Alt Estuaries SPA/Ramsar site and Sefton Coast SAC). The rest of this site is located approximately 1km from Sefton at its closest point (around New Brighton to the south of the River Mersey). Potential pathways exist through: <ul style="list-style-type: none"> • direct habitat loss through expansion of the Port at Seaforth, • mineral extraction, • reduction in water quality, • reduction in air quality, • increase in recreational pressure, • loss or damage to benthic habitat through dredging, • coastal squeeze, and • disturbance to qualifying bird species.
Potential for 'in combination' effects with other plans and projects	
Liverpool Bay SPA	Located immediately adjacent to Sefton at low tide mark. Potential pathways exist through: <ul style="list-style-type: none"> • loss of water quality through sewage effluent discharges, • dredging and disturbance of sediments/benthic habitats following port expansion, • in-combination disturbance of birds through increase in ship movements and recreational pressure
Manchester Mosses SAC	Located immediately adjacent to the M62 which forms a major

	route from eastern Merseyside (north of the river) and Greater Manchester. Other Merseyside HRAs have considered this site for its cumulative ‘in combination’ deterioration in local air quality where they may contribute (through the delivery of new housing over the same period) an increase in the use of the M62 and associated atmospheric nitrogen deposition which currently threatens the integrity of this European Site. Whilst Sefton is not located adjacent to the M62, it is conceivable that people from Sefton would use this route on the way to Manchester.
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The initial evidence gathering stage also evaluated whether pathways existed to the following European sites listed in Table 2, but, based on the information identified it was concluded that they could be removed from further consideration (the pathways are explained in greater detail in Chapter 4).

Table 2: European Sites considered at initial Evidence Gathering Stage, but scoped out of HRA/AA

European Site	Pathway identified at initial Evidence Gathering Stage and reason for scoping out
Mersey Estuary SPA & Ramsar site	Located approximately 7.5km south of Sefton. Whilst respondents to the England Leisure Day Visits Survey indicated that they typically travelled 25.5km to visit the coast for the day it is unlikely that visitors from Sefton will make a material contribution to visitor pressure given that several other estuaries providing a similar (if not a better) recreational experience are much closer and more easily accessible from Sefton and are more likely to draw visitors from Sefton.
Martin Mere SPA & Ramsar	Martin Mere is approximately 5 km inland of Sefton. It is specifically geared towards attracting visitors and during discussion with Natural England over the St. Helens Core Strategy HRA there was a general view that recreation was sufficiently well managed on this site that recreational pressure was not an issue.
Morecambe Bay SAC SPA & Ramsar site	Located 16.3 km north of the Sefton borough boundary. Having considered this site at the initial evidence gathering stage, for completeness our view is that it is unlikely that Sefton will contribute significantly to visitor pressure since other estuaries which provide a similar experience are closer to, and much easier to get to, from Sefton.
River Dee and Bala Lake SAC	Located 28.5km south of the Sefton borough boundary. Whilst the River Dee is a current source of potable water supply for Merseyside, alongside other areas within the Integrated Resource Zone, the United Utilities Water Resource Management Plan (September 2009) ⁷ does not identify abstraction from the Dee or any other European sites beyond the current licensed volumes as part of United Utilities’ intended future supply strategy ⁸ , which rather depends on a mixture of demand management and increased abstraction. Since no

⁷ United Utilities Final Water Resources Management Plan (September 2009) available from <http://corporate.unitedutilities.com/documents/WRMPSummaryReport.pdf> [Accessed March 2013]

⁸ 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 concluded that no adverse effects on the integrity of the River Dee (either alone or ‘in combination’) will result from the United Utilities abstraction. This point has been re-confirmed in email correspondence with Mark Smith during August 2012.

	increased abstraction from European sites will be required in order to service new development in Merseyside (or elsewhere within the Integrated Supply Zone), there will be no likely significant effects on the European 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
The Dee Estuary SAC, SPA & Ramsar	Located 1.6km west of the Sefton borough boundary across the River Mersey. Identified as a source of potable water supply for Merseyside (see above for River Dee and Bala Lake SAC).
River Eden SAC	Haweswater Lake (to which the River is hydrologically connected) is likely to form part of the future water supply for Merseyside and other areas within the Integrated Resource Zone (see above for River Dee and Bala Lake SAC).

3.7 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 a Local Plan 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 Local Plan within the context of all other plans and projects within the region. The principal other plans and projects that we are considering are:

3.7.1 Projects

- Burbo Bank offshore windfarm comprises 25 turbines and is situated on the Burbo Flats in Liverpool Bay at the entrance to the River Mersey, approximately 6.4km (4.0 miles) from the Sefton coastline. The proposed Burbo Bank Extension offshore wind farm development consists of an area of 40 km² 8.5 km from Crosby beach. Following HRA and Appropriate Assessment, the Secretary of State was satisfied of no likely significant effects in combination upon European designated sites;
- Mersey Ports Masterplan (Consultation draft; June 2011), including the Port expansion into Seaforth Nature Reserve and the Seaforth River Terminal (a deepwater container port expansion in Sefton is currently under construction and due for completion in 2015), new opportunities for renewable energy, development of single and multi-user port centric warehousing and of new processing facilities for imported commodities. potentially leading to the Liverpool SuperPort – An integrated port, airport, intermodal terminal, freight and commercial network based upon the Port of Liverpool, the Manchester Ship Canal, Liverpool John Lennon Airport and the Mersey Multimodal Gateway (Liverpool City Region);
- Peel Waters: Wirral and Liverpool Waters – This project is the development of currently run down dockland areas both on the Wirral and Liverpool side of the River Mersey. This includes the construction of houses, retail and commercial developments. The construction of these two developments will have a direct impact on the Mersey Narrows and North Wirral Foreshore SPA due to loss of habitat, barrier impacts for birds in flight and significant disturbance issues during construction;
- Sandon Dock Waste Water Treatment Works outfall extension - to reduce adverse effects on estuary marshes the work to extend the outfall will take place on the opposite bank to the Egremont Shore section of the Mersey Narrows and North Wirral Foreshore Ramsar and SPA site (containing Mersey Narrows SSSI) but may still have an impact on

the designated features of the SPA through the construction of the extended pipe. There may be issues relating to changes in sedimentation patterns altering the position of sand banks;

- Power from the Mersey – project to generate renewable power from the tidal processes in the River Mersey/Mersey Estuary. This project has been indefinitely postponed;
- Liverpool John Lennon Airport expansion;
- Energy from Waste Plants at Runcorn (Halton Borough Council) and Ince Marshes (Cheshire West & Chester);
- Frodsham Windfarm – 20 turbines to be constructed on a stretch of land between the Manchester Ship Canal and the M56 (Cheshire West & Chester);
- Thornton to Switch Island Link Road (Sefton Council) (expected completion 2015);
- Crosby Water Centre, Seaforth Terminal and possible visitor centres at Formby/Marshside (Sefton Council);
- Mersey Heartlands Growth Point Programme of Delivery (Wirral and Liverpool).

3.7.2 Plans

- Horizon Nuclear Power (proposed nuclear power site at Wylfa Newydd Project on Anglesey);
- Sefton Infrastructure Delivery Study;
- The Wales Spatial Plan;
- North West England & North Wales Shoreline Management Plan 2;
- Great Ormes Head to Formby Point Shoreline Management Plan;
- Formby Point to River Wyre Shoreline Management Plan;
- Liverpool Local Plan Core Strategy - emerging;
- Knowsley Local Plan Core Strategy. Revised Document 2014;
- Halton Local Plan Core Strategy. Adopted April 2013;
- Wirral Local Plan Core Strategy - emerging;
- St. Helens Local Plan Core Strategy Adopted 2012;
- Flintshire Unitary Development Plan + Proposed Modifications;
- Denbighshire Unitary Development Plan + emerging Local Development Plan;
- Emerging Wrexham Local Plan
- Conway Local Development Plan 2013
- Joint Merseyside & Halton Waste Local Plan Adopted 2013 ;
- Greater Manchester Joint Waste Plan 2012;
- West Lancashire Local Plan Adopted 2013;
- Emerging Cheshire West and Chester Local Plan 2014;
- Warrington LDF Core Strategy 2014;

- Liverpool City Region Development Plan;
- North West River Basin Management Plan 2009 and emerging review;
- Alt / Crossens Management Plan 2009; and
- United Utilities Water Resource Management Plan 2009 and Draft United Utilities Water Resources Management Plan 2013

For the purposes of this assessment, we have determined that, due to the nature of the identified impacts, the key plans and projects that are likely to result in ‘in-combination’ effects with the Sefton Local Plan relate to the additional housing and commercial/industrial allocations proposed for other Merseyside and West Lancashire authorities over the lifetime of the Local Plan (see Table 3). In addition, due to the potential scale of impact, other plans/plans relating to Port Expansion at Seaforth Nature Reserve are also considered significant.

Table 3: Housing to be delivered within other Merseyside authorities under most recent published proposals (housing numbers are subject to change)

Local Authority	Total housing under most recent published proposals
Knowsley	7,650 new dwellings between 2010 and 2027
Halton	9,000 between 2010 and 2028 ⁹
St Helens	13,680 between 2003 and 2027
Wirral	3,750 between 2012 and 2027
Liverpool	40,950 between 2012 and 2028

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 – we will however draw upon existing HRA that have been carried out for surrounding regions and plans.

3.7.3 Mersey Ports Masterplan and Port Expansion at Seaforth

The Port of Liverpool and The Manchester Ship Canal, known collectively as Mersey Ports, form an international gateway recognised by the Government as a key component of UK global trading links. This Mersey Ports Master Plan provides a framework for setting out the ports’ aspirations, including for the medium and long term, assisting in the consideration of related projects and planning applications. The 44 miles of the combined Port of Liverpool and The Manchester Ship Canal will incorporate over 10 rail-linked terminals and with 10 motorways within 10 miles of operational port assets¹⁰:

In addition developing greater warehousing, processing and operating facilities, there are a number of key strategic business drivers within the period of the Mersey Port Master Plan, including:

- The planned Seaforth River Terminal a deep-water container port expansion, which is under construction and due to be completed late 2015;

⁹ 9,000 new homes (net of demolitions) should be provided between 2010 and 2026 at a minimum rate of:

- 400 units per annum for the period April 2010 – March 2015
- 600 units per annum for the period April 2015 – March 2020
- 500 units per annum for the period April 2020 – March 2028

Beyond 2028, development should continue at a minimum rate of 500 units per annum (net gain) unless this is superseded by a change to policy at national level.

¹⁰ Peel Ports (2011) Mersey Ports Master plan Consultation Draft (July 2011) available from <http://www.merseydocks.co.uk/masterplan/documents.htm> [Accessed May 2013]

- The development of a number of multi-modal inland ports upon The Manchester Ship Canal – Port Wirral, Port Bridgewater, Port Ince, Port Warrington and Port Salford;
- The wide diversity of Port operations both now and into the future; and
- Entry into new sectors – including biomass energy, offshore wind, waste to energy and recycling.

The ‘Royal Seaforth’ area within the Master Plan comprises the deep water of active Royal Seaforth Dock. An adjoining site (known as Area B) comprises the only part of the Mersey Narrows and North Wirral Foreshore SPA/Ramsar Site in Sefton. This area was originally reclaimed from the River Mersey for future port expansion as part of the construction of Royal Seaforth Dock in the late 1960s, but developed into the European Designated Site over the past 50 years or so.

There are two distinctive but closely related initiatives within Royal Seaforth. Firstly the development of an in-river container terminal able to accommodate the increasing-sized container vessels. Secondly, the consideration as to the future use of the land forming Seaforth Nature Reserve for Port-related purposes.

The in-river terminal was consented under a Harbour Revision Order in May 2007, and is under construction and due for completion in 2015. The approval was subject to an Environmental Impact Assessment (EIA) and HRA and there are a number of legal agreements in place relating to the mitigation of impacts arising from the development.

To allow for the Port of Liverpool’s future commercial growth, the whole of Area B is being promoted for development for port related use within the Mersey Ports Master Plan. The development of Area B to support the anticipated growth would lead to the loss of habitats and features of interest to nature conservation and would result in an adverse effect on integrity of the Mersey Narrows and North Wirral Foreshore SPA and Ramsar site. Consequently, in order to develop Area B, the Port would need to satisfy a number of tests of the Habitats Regulations, namely that there are no alternative solutions, that the development is needed for imperative reasons of overriding public interest (IROPI) and that appropriate compensatory habitats can be provided.

As a precursor to the preparation of a planning application affecting Seaforth Nature Reserve, and which would be accompanied by an EIA/AA, ongoing work being carried out by Peel Ports is focusing upon the methodology and delivery mechanisms of compensatory habitat. This is a matter of ongoing dialogue and consultation with a number of stakeholders. A jointly commissioned study by the NWDA/MDHC was undertaken in March 2006 entitled “Mersey Narrows and North Wirral Foreshore SPA Compensation Study” which identified the profile and potential requirements for compensatory habitat should the development within the European Designated Site go ahead. Since that time, the features of the site have changed and the 2006 study is being significantly revised.

4. PATHWAYS OF IMPACT

4.1 Introduction

In carrying out a Habitats Regulations Assessment it is important to avoid using 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 kilometers 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 draft 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.6¹¹).

The following indirect pathways of impact were considered relevant to the HRA of the Local Plan.

4.2 Disturbance and Recreational Pressure

HRAs of Local Plans tend to focus on recreational sources of disturbance as a result of new residents or an increasingly aging population with more leisure time available¹². While this is a key factor, other sources of disturbance associated with an increase in commercial development, road transport adjacent to sensitive sites or increases in shipping and aircraft movement may also result.

This section distinguishes between potential impacts on breeding birds (between March and August) and non-breeding birds (between August to May).

4.2.1 *Breeding birds (March to August)*

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 (this will apply all year round)¹³. 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 birds¹⁴. 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.

4.2.2 *Non-breeding birds (August to July)*

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, activity outside of the summer months can still cause important disturbance, especially as birds are particularly vulnerable at this time of year due to food shortages. Disturbance which results in

¹¹ 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>

¹² The RTPI report 'Planning for an Ageing Population'(2004) which states that 'From being a marginalised group in society, the elderly are now a force to be reckoned with and increasingly seen as a market to be wooed by the leisure and tourist industries. There are more of them and generally they have more time and more money.' It also states that 'Participation in most physical activities shows a significant decline after the age of 50. The exceptions to this are walking, golf, bowls and sailing, where participation rates hold up well into the 70s'.

¹³ Riddington, R. *et al.* 1996. The impact of disturbance on the behaviour and energy budgets of Brent geese. *Bird Study* 43:269-279

¹⁴ Gill, J.A., Sutherland, W.J. & Norris, K. 1998. The consequences of human disturbance for estuarine birds. *RSPB Conservation Review* 12: 67-72

abandonment of suitable feeding areas can have severe consequences for those birds involved and their ability to find alternative feeding areas. Several empirical studies have, through correlative analysis, demonstrated that out-of-season (October-March) recreational activity can result in quantifiable disturbance:

- Tuite et al¹⁵ 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 al¹⁶ 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 & Warrington¹⁷ 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 displacing birds into the LNR. However, in this study, recreational activity was not quantified in detail, nor were individual recreational activities evaluated separately; and
- Tuite et al¹⁸ 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 wildfowl numbers during these months 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^{19 20}.

A recent study on recreational disturbance of the Humber Estuary SPA/Ramsar²¹ was commissioned following a decline in numbers of some bird species from the Humber. This was considered necessary within the context of a likely future increase in residential development and an identification of the requirement for improved coastal access in order to inform future policies/management plans. The study collated on-site visitor survey data, targeted interviews with user groups, driving transects, car park counts and vantage point counts to identify the most visited areas of the SPA/Ramsar. These data were correlated with bird data (i.e. key locations for particular qualifying bird species within the SPA/Ramsar and therefore those areas likely to be considered particularly sensitive). This information was used

¹⁵ 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

¹⁶ 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

¹⁷ 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

¹⁸ 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

¹⁹ Footprint Ecology. 2010. Recreational Disturbance to Birds on the Humber Estuary

²⁰ Footprint Ecology, Jonathan Cox Associates & Bournemouth University. 2010. Solent disturbance and mitigation project – various reports.

²¹ Helen Fearnley Durwyn Liley and Katie Cruickshanks (2012) Results of Recreational Visitor Survey across the Humber Estuary produced by Footprint Ecology

<http://humberems.co.uk/downloads/Footprint%20Ecology%20Humber%20Visitor%20Report%206th%20July%202012.pdf>

to identify potentially key areas where conflicts were considered likely to arise between key recreational activities and bird interest. Key activities which were found to cause likely to disturbance to qualifying bird species (as already mentioned in this section) included: airborne activities; bait digging; beach activities; dog walking; fishing; horse riding; kite surfing; walking; wildfowling; and wildlife watching. This study serves to support the case of likely recreational disturbance on qualifying bird species through data collected on a relatively local and similar European Site, subject to similar pressures as the Sefton Coast. This is discussed in greater detail in Chapter 6 (Sefton Coast SAC) and Chapter 7 (Ribble and Alt Estuaries SPA/Ramsar).

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 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/death²².

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 roads²³.

A recent study on recreational disturbance on the Humber²⁴ assesses different types of noise disturbance on waterfowl referring to studies relating to aircraft (see Drewitt 1999²⁵), traffic (Reijnen, Foppen, & Veenbaas 1997)²⁶, dogs (Lord, Waas, & Innes 1997²⁷; Banks & Bryant 2007²⁸) and machinery (Delaney et al. 1999; Tempel & Gutierrez 2003). These studies identified that there is still relatively little work on the effects of different types of water based craft and the impacts from jet skis, kite surfers, windsurfers etc. (see Kirby et al. 2004²⁹ for a review). Some types of disturbance are clearly likely to invoke different responses. In very general terms, both distance from the source of disturbance and the scale of the disturbance (noise level, group size) will both influence the response (Delaney et al. 1999³⁰; Beale & Monaghan 2005³¹). On UK estuaries and coastal sites, a review of WeBS data showed that, among the volunteer WeBS surveyors, driving of motor vehicles and shooting were the two activities most perceived to cause disturbance (Robinson & Pollitt 2002)³².

²² Riley, J. 2003. Review of Recreational Disturbance Research on Selected Wildlife in Scotland. Scottish Natural Heritage.

²³ 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

²⁴ Helen Fearnley Durwyn Liley and Katie Cruickshanks (2012) Results of Recreational Visitor Survey across the Humber Estuary produced by Footprint Ecology

²⁵ Drewitt, A. (1999) Disturbance effects of aircraft on birds. *English Nature*, Peterborough.

²⁶ Reijnen, R., Foppen, R. & Veenbaas, G. (1997) Disturbance by traffic of breeding birds: evaluation of the effect and considerations in planning and managing road corridors. *Biodiversity and Conservation*, 6, 567-581.

²⁷ Lord, A., Waas, J.R. & Innes, J. (1997) Effects of human activity on the behaviour of northern New Zealand dotterel *Charadrius obscurus aquilonius* chicks. *Biological Conservation*, 82, 15-20.

²⁸ Banks, P.B. & Bryant, J.V. (2007) Four-legged friend of foe? Dog-walking displaces native birds from natural areas. *Biology Letters*, 3, 611-613.

²⁹ Kirby, J.S., Clee, C. & Seager, V. (1993) Impact and extent of recreational disturbance to wader roosts on the Dee estuary: some preliminary results. *Wader Study Group Bulletin*, 68, 53-58.

³⁰ Delaney, D.K., Grubb, T.G., Beier, P., Pater, L.L.M. & Reiser, H. (1999) Effects of Helicopter Noise on Mexican Spotted Owls. *The Journal of Wildlife Management*, 63, 60-76.

³¹ Beale, C.M. & Monaghan, P. (2005) Modeling the Effects of Limiting the Number of Visitors on Failure Rates of Seabird Nests. *Conservation Biology*, 19, 2015-2019.

³² Robinson, J.A. & Pollitt, M.S. (2002) Sources and extent of human disturbance to waterbirds in the UK: an analysis of Wetland Bird Survey data, 1995/96 to 1998/99: Less than 32% of counters record disturbance at their site, with differences in causes between coastal and inland sites. *Bird Study*, 49, 205.

Hull University's Institute of Estuarine and Coastal Studies (IECS) have recently devised a toolkit as part of the European-wide TIDE project to assess the disturbance effects of particular works near to important wetland areas. It is based on observations as to how different levels of noise and other activities generated during construction projects affected bird behaviour. The toolkit includes a guide to the main bird species likely to be affected, and detail as to the months of higher sensitivity when disturbance impacts can be greatest.

4.2.3 *Other activities causing disturbance*

Activities other than recreation may also lead to disturbance of wildlife. Of relevance to the Sefton Local Plan for example would be noise, vibration and visual disturbance from the Port proposals to develop the Port at Seaforth Nature Reserve. Disturbance and displacement from feeding and areas has been demonstrated with regard to geese³³, curlew and hen harriers³⁴. Light pollution can also be an issue.

The sensitivity of wildlife to the noise and vibration 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 populations³⁵. Elsewhere, reduced breeding success has been recorded.

Large structures (e.g. offshore and onshore wind turbines), have the potential to alter bird flight paths (e.g. hunting flight paths for raptors, bird migratory paths, regular flight paths between roosting and feeding sites, and foraging routes for bats etc.). This may result in a collision risk barrier effect or displacement which could make birds either vulnerable to predation or loss of vital energy stores³⁶. The Liverpool City Region Renewable Energy Study (2011)³⁷ has identified 'Wind Priority Zones', which includes an area within Sefton (Ince Blundell), as well as an area adjacent to the Sefton Borough (Great Altcar, located in West Lancashire).

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*"³⁸.

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.

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.

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

³³ Langston, R.H.W & Pullan, J.D. (2003). Effects of Wind Farms on Birds: Nature and Environment No. 139. Council of Europe.

³⁴ Madders, M. & Whitfield, D.P. 2006. Upland raptors and the assessment of wind farm impacts. Ibis 148 (Suppl. 1), 43-56.

³⁵ Kaseloo, P. A. and K. O. Tyson. 2004. Synthesis of Noise Effects on Wildlife Populations. FHWA Report.

³⁶ This has been explored through various recent Scottish Natural Heritage studies including Guidance Avoidance Rates for Wintering Species of Geese in Scotland at Onshore Windfarms (May 2013) (<http://www.snh.gov.uk/docs/A916616.pdf>); and Guidance Recommended bird survey methods to inform impact assessment of onshore wind farms August 2013; (<http://www.snh.gov.uk/docs/C278917.pdf>);

³⁷ Arup (2011) Liverpool City Region Renewable Energy Study available from http://www.westlancs.gov.uk/planning/planning_policy/the_local_plan/the_local_plan_2012-2027/evidence_and_research/climate_change_energy.aspx [Accessed March 2013]

³⁸ DTI (2006). Aerial Surveys of Waterbirds in Strategic Wind Farm Areas: 2004/05 Final Report

species to the same stimulus and within a species to different stimuli. These are given in Table 4, 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. Tolerance distances are unknown for many birds and simple extrapolation to other species is not advised.

Table 4 - 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.³⁹

Species	Type of disturbance. ¹ Tydeman (1978), ² Keller (1989), ³ Van der Meer (1985), ⁴ Wolff et al (1982), ⁵ Blankestijn et al (1986)		
	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
Oystercatcher			85 ³ ; 136 ⁴ ; 82 ⁵
Dunlin			71 ³ ; 163 ²

³⁹ 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., Reijnders, 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. Seizoensverbreiding in de recreatie en verstoring van Wulp en Scholkester op hoogwatervluchplaatsen op Terschelling. Report Projectgroep Wadden, L.H. Wageningen. 261pp.

4.3 Mechanical/abrasive damage and nutrient enrichment

Most types of aquatic or terrestrial European site can be affected by trampling, which in turn causes soil compaction and erosion:

- Wilson & Seney (1994)⁴⁰ 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)⁴¹ conducted experimental off-track trampling in 18 closed forest, dwarf scrub and meadow & grassland communities (each tramped between 0 – 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 hemicytophytes 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)⁴² 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 trampers caused a greater reduction in vegetation height than lighter trampers, but there was no difference in effect on cover.
- Cole & Spildie (1998)⁴³ 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 understorey and one with a low shrub understorey). 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.

Walkers with dogs contribute to pressure on 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 more serious erosion, as well as disturbance to sensitive

⁴⁰ 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

⁴¹ 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

⁴² 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.

⁴³ 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

species. Boats can also cause some mechanical damage to intertidal habitats through grounding.

4.4 Atmospheric pollution

The main pollutants of concern for European sites are oxides of nitrogen (NO_x), ammonia (NH₃) and sulphur dioxide (SO₂). NO_x can have a directly toxic effect upon vegetation. In addition, greater NO_x 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 5: Main sources and effects of air pollutants on habitats and species

Pollutant	Source	Effects on habitats and species
Acid deposition	SO ₂ , NO _x and ammonia all contribute to acid deposition. Although future trends in Sulphur (S) emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, it is likely that increased Nitrogen (N) emissions may cancel out any gains produced by reduced S levels.	Can affect habitats and species through both wet (acid rain) and dry deposition. Some sites will be more at risk than others depending on soil type, bed rock 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 deposition (N)	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. 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.

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 as (particularly on a local scale) shipping.

Sulphur deposition is known to be a problem for the Sefton coast, originating from shipping exhaust emissions related to the Port of Liverpool. According to the UK Air Pollution Information System (www.apis.ac.uk) this is mainly with regard to the dune grassland interest feature. APIS (accessed 10/09/11) indicates that 34% of sulphur deposition within the southern part of the SAC is due to shipping and 'maritime activities'. The most recent National Vegetation Classification (NVC) assessment of the Sefton coast (Sefton Coast Partnership, 2003-04) has also found that vegetation communities are becoming more eutrophic across the SAC as a result of nitrogen deposition, with shipping activities considered to be contributing to levels of deposition. The potential for effects from the port expansion project will therefore require consideration as it will bring shipping into the boundary of the SAC as a result of the development of Seaforth Nature Reserve. This will increase both the number and size of ships with associated emissions and the proximity of those ships to the European Site boundary.

Ammonia emissions are dominated by agriculture, with some chemical processes also making notable contributions. As such, it is unlikely that material increases in SO₂ or NH₃ emissions will be associated with Local Plans. NO_x 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 NO_x (92%) will be made by the associated road traffic. Other

sources, although relevant, are of minor importance (8%) in comparison⁴⁴. Emissions of NOx could therefore be reasonably expected to increase as a result of greater vehicle use as an indirect effect of the Local Plan.

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, ecological studies have determined 'critical loads'⁴⁵ of atmospheric nitrogen deposition (that is, NOx combined with ammonia NH₃).

The National Expert Group on Transboundary Air Pollution (2001)⁴⁶ 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 SO₂ 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 SO₂;
- 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; and
- 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.

4.5 Local air pollution

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"⁴⁷. This is because traffic exhausts are situated only a few inches above the ground and are horizontal to it, such that the vast majority of emitted pollutants are never dispersed far and are very quickly deposited. This distance is also related to the mix of the exhaust gases, the small dimension of the exhausts and the velocity of the exhaust gases leaving the exhaust.

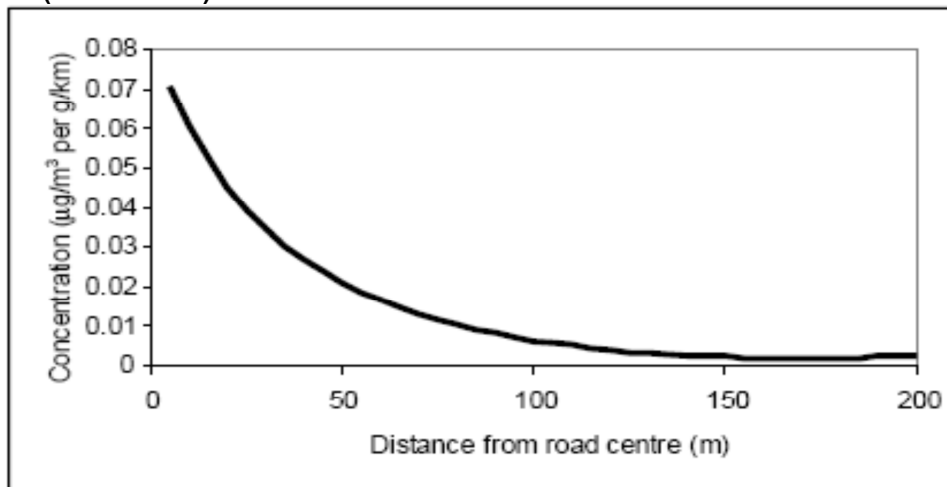
⁴⁴ Proportions calculated based upon data presented in Dore CJ et al. 2005. UK Emissions of Air Pollutants 1970 – 2003. UK National Atmospheric Emissions Inventory. <http://www.airquality.co.uk/archive/index.php>

⁴⁵ The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur

⁴⁶ National Expert Group on Transboundary Air Pollution (2001) Transboundary Air Pollution: Acidification, Eutrophication and Ground-Level Ozone in the UK.

⁴⁷ www.webtag.org.uk/archive/feb04/pdf/feb04-333.pdf

Figure 3: Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT)



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 be applied to shipping emissions. This is because exhaust stacks on ships however are at a much greater height and discharge emissions directly upwards in a plume so they are dispersed further. Also, unlike cars, shipping is not constrained to moving in a linear manner deposition patterns are different. We must therefore restrict ourselves to assuming that the presence of a pathway relating to shipping emissions indicates a possible issue.

4.6 Diffuse air pollution

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). With respect to the Local Plan Policy for Renewable Energy (Policy 40) delivery of district heating at Kew in Southport (informed by The Liverpool City Regional Renewable Energy Options⁴⁸) this initiative will largely involve maximising the value obtained from existing domestic/commercial boilers which make a negligible contribution to both nitrogen deposition and SO₂ emissions (typically 2% or less).

During consultation on the HRA Test of Likely Significant Effects report produced to accompany the preferred options Core Strategy for Liverpool City in 2012⁴⁹ (URS, 2012), the Countryside Council for Wales (now Natural Resources Wales) queried whether diffuse air pollution impacts on the Dee Estuary and Berwyn & Clwyd Mountains should be included in the remit of the Appropriate Assessment. In July 2006, when this issue was raised by Runnymede District Council in the South East, Natural England advised that their Local Plan ‘can only be concerned with locally emitted and short range locally acting pollutants’⁵⁰ as this is the only scale which falls within a local authority remit. This guidance inevitably sets a precedent within England since (as far as we are aware) it is the only formal guidance that has

⁴⁸ Arup (2001) Liverpool City Regional Renewable Energy Options Stage 2 (Drawing Title CHP/DH & Wind Priority Zones, Final Issue) (date 27/5/2010)

⁴⁹ URS (2012) Liverpool City Council Core Strategy Habitat Regulations Assessment (August 2012)

⁵⁰ English Nature (16 May 2006) letter to Runnymede Borough Council, ‘Conservation (Natural Habitats &c.) Regulations 1994, Runnymede Borough Council Local Plan’.

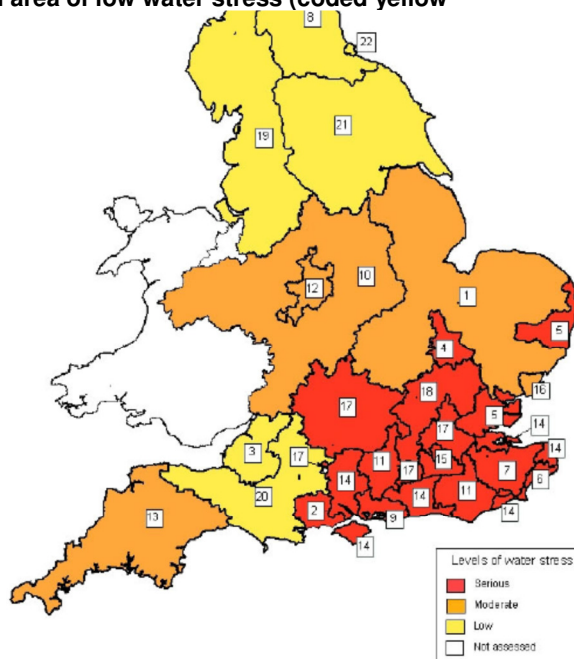
been issued to a Local Authority from any Natural England office on this issue. It is noted that the above Natural England advice *does not* set a precedent with regard to plans and projects located within Wales but given that Sefton is an English authority it is considered appropriate to give due precedence to Natural England advice on this issue. The aforementioned approach is adopted within the Environment Agency Review of Consents process, in assessing the significance of air pollution contributions. Guidance can be found on the Environment Agency website, e.g. ‘H1 Annex F- Air Emissions’⁵¹.

In the light of this and our own knowledge and experience, it is considered reasonable to conclude that it must be the responsibility of national government 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 except to identify where the Local Plan incorporates a suite of measures that will lead to an improvement in overall background air quality (or at least ensure that Sefton’s contribution to future negative trends in diffuse air quality is minimal).

4.7 Water resources

The North West is generally an area of low water stress (see Figure 4), as is North Wales, which is a major source of potable water for north-west England.

Figure 4: Areas of water stress within England. It can be seen from this map that Merseyside is classified as being an area of low water stress (coded yellow)⁵²



Sefton is located 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 Ml/d of drinking water, of which about 500

⁵¹ H1 annex F- Air Emissions available on https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/298239/geho0410bsil-e-e.pdf [Accessed December 2014]

⁵² Figure adapted from Environment Agency. 2007. Identifying Areas of Water Stress. <http://publications.environment-agency.gov.uk/pdf/GEHO0107BLUT-e-e.pdf>

MI/d comes from water sources in Wales, about 600 MI/d comes from sources in Cumbria, and the rest from sources in other parts of North West England. It constitutes a large integrated supply network that enables substantial flexibility in distributing supplies within the zone. The construction of the 'west to east link' will further aid this flexibility and thus break the traditional division in which Greater Manchester received water from Cumbria and Merseyside received water from the River Dee (which lies partly in England and partly in Wales) and from purely Welsh sources (e.g. Lake Vyrnwy).

In exploring water resource issues relating to Welsh European sites for St Helens Council, URS determined from United Utilities that approximately 75% of St. Helens potable water supply is currently abstracted from the River Dee, 20% is abstracted from Lake Vyrnwy and only 5% is abstracted from sites in Cumbria. It is likely that similar proportions relate to Sefton although this is likely to change in the future as a result of the greater flexibility provided by the west-east link. In any case, Cumbrian and Welsh sources will still be involved in water supply to Sefton.

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 Ramsar site. Four water companies abstract from sources that affect the River Dee including United Utilities (UU), Dee Valley Water, Welsh Water and Severn Trent Water. The potential for excessive abstraction from the Dee to result in sufficient drawdown of water to damage the interest features of the River Dee and Bala Lake SAC has been considered in this HRA process. If this does occur, damage could occur through desiccation, fish entrainment or deterioration in water quality due to the lower proportion of freshwater to sediment. This, in turn, could reduce freshwater flows into the Dee Estuary to such a degree as to damage the interest features of that site through an increase in salinity. These risks are identified in the Environment Agency's Review of Consents process for these sites.

In the future as a result of the west-east link Merseyside (including Sefton) will obtain a much greater proportion of its water supply from Lake District sources. This is likely to involve Haweswater as a principal reservoir. Haweswater is within the catchment of the River Eden SAC and thus the potential for extraction of Haweswater to result in drawdown and reduced flow impacts on the River Eden SAC was also considered.

The Draft United Utilities Water Resource Management Plan (2013) indicates that the water available for use in the Integrated Resource Zone is expected to reduce by 118.7 MI/d between 2015/16 and 2039/40. Without water efficiency measures or new resources the initial supply demand balance for the Integrated Resource Zone is calculated to be in deficit.

However, from reading the Draft Water Resource Management Plan (WRMP) it does appear that abstraction from the Dee or any other European sites beyond the current licensed volumes is not part of United Utilities' intended future supply strategy, which depends on a mixture of demand management and increased abstraction from groundwater. The United Utilities HRA of the WRMP: Assessment of Feasibility and Preferred Options (2013)⁵³ identified that there would be no likely significant effect would result from the WRMP.

It was concluded in the 'Evidence Gathering Stage' (Chapter 3) that since no increased abstraction from European sites will be required in order to service new development in Sefton (or elsewhere within the Integrated Supply Zone) that there will be no likely significant effects on the River Dee & Bala Lake SAC or River Eden SAC.

Risk of abstraction at inappropriate times of the year (such as periods of low flow) will be prevented within England by the Environment Agency's licencing regime and Review of Consents process and within Wales by the Natural Resources Wales who holds the

⁵³ AMEC (2013). United Utilities Habitats Regulations Assessment of the Water Resource Management Plan: Assessment of Feasibility and Preferred Options

responsibility for abstraction licences within Wales.. As such water resources as a pathway are no longer considered in this HRA.

4.8 Water quality

The Sewage Treatment Works (STWs) that serve Sefton are at Maghull (Melling), Formby, Southport, Ainsdale, Hillhouse (at Great Altcar in Lancashire), Fazakerley (in Liverpool) and Sandon (also in Liverpool).

Formby, Maghull (Melling), Hillhouse and Fazakerley STWs all discharge treated effluent to the River Alt (or tributaries of that river), which drains to the Sefton Coast SAC and Ribble and Alt Estuaries SPA/Ramsar. Southport STW discharges directly into the Ribble and Alt Estuaries SPA/Ramsar. Sandon STW discharges into the Mersey Estuary immediately upstream of Liverpool Bay SPA and within close proximity to the Mersey Narrows & North Wirral Foreshore SPA and Ramsar site.

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.

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:

- 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;
- 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
- 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.

For sewage 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.

However, it is also important to note that the situation is not always simple – for sites designated for waterfowl a STW 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 abundance of smothering macroalgae that is produced, 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.

Coastal and estuarine sites rely on water of sufficient quality to support plant and invertebrate species that in addition to being of innate value in themselves, also support birds, reptiles, fish, amphibians and mammals for which such sites may be designated. The Ribble and Alt Estuaries SPA and Ramsar, Liverpool Bay SPA and Mersey Narrows and North Wirral Foreshore SPA and Ramsar are designated for birds species that are reliant on good quality water to support their existence. All of these designated sites could be vulnerable to pollution arising from sewerage generated through development in Sefton, if adequate infrastructure is not in place. Whilst it is understood that Sefton Infrastructure Delivery Plan does seek to prevent this from happening, at this Test of Likely Significant Effects stage water quality impacts are considered to be an issue that requires investigation.

4.9 Port Development, Shipping and Dredging

The construction and maintenance of ports and inland shipping channels poses a number of environmental risks⁵⁴. Of particular importance is the dredging necessary to permit large vessels to enter ports, or to maintain inland channels. In natural estuaries and harbours, there is a balance between sediment transported out to sea and that which flows in with rivers and runoff, which tends to maintain an equilibrium depth. Often this is not deep enough to allow vessels safe passage, so navigational channels and harbours are dredged to deepen them. Because natural forces will tend to build up sediment until the channels and port return to their equilibrium, dredging to maintain safe depth is an ongoing maintenance activity. The need for such dredging is likely to increase in the future as ships become larger and require deeper ports or as inland water transport grows in importance.

Dredging poses direct threats to the areas in which it occurs. It introduces sediment into the adjacent water column, which is then re-deposited on the bottom. This has a variety of usually short-term effects on pelagic fish and the benthic community. The suspended sediment increases turbidity, decreasing light penetration and photosynthetic activity. Dredging can also have longer term effects on water circulation patterns, particularly in estuarine areas where water circulation determines the distribution of fresh and salt water, patterns of dissolved oxygen, and other water quality parameters. Changes in salinity can affect the viability of freshwater wetlands and tidal marshes, with consequent impacts on the distribution of marine life. Changes in water circulation patterns can also alter sediment accumulation, thus affecting all ecosystems in the immediate area⁵⁵.

Dredging for marine minerals has occurred in UK waters for many years, in response to the need for sand and gravel used as construction aggregate and for beach replenishment, including the Mersey. Mersey Silt has historically been identified as having a possible contribution to the supply of construction aggregates in north-west England⁵⁶ including as concreting or mortaring sand as coarse aggregate or bricks.

The development of the Port at Seaforth (supported by Policy ED1), particularly in combination with other plans and policies associated with development of ports in the region (e.g. Ports of Liverpool and Garston) has the potential to result in 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. Policies that encourage more freight by shipping also have the potential to result in pollution through fuel emissions, and accidental spillages. As a precaution these pathways have been considered in this report.

⁵⁴ OECD (Organisation for Economic Co-Operation and Development (1997) The Environmental Effects of Freight available from <http://www.oecd.org/dataoecd/14/3/2386636.pdf> (Accessed July 2010)(p17)

⁵⁵ Marine Board, Commission on Engineering and Technical Systems, National Research Council (1985), Dredging Coastal Ports: An Assessment of the Issues. (Washington, D.C.: National Academy Press) (pp124-128)

⁵⁶ P.F.G. Banfill* and A.C. Benson (Department of Building Engineering),(1979). Alternative aggregate materials: Properties of Mersey Silt Building and Environment (Volume 14, Issue 3, 1979, Pages 203-208)

4.10 Coastal squeeze

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 to the presence of the sea wall 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.

Intertidal habitat loss is mainly occurring in the south and east of the country, particularly between the Humber and Severn. Northwest England, 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. The Shoreline Management Plan process for North West England will be the main process whereby the losses due to flood defences and coastal squeeze and the gains due to managed retreat along the frontage will be identified at a strategic level. However, local authorities can also contribute to minimising squeeze by appropriately siting new development in line with Shoreline Management Plan policy.

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, together with any more specifically identified measures to replace losses of terrestrial and supra-tidal habitats, is likely to be required to protect the overall coherence of the Natura 2000 network. 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 This is relevant to Sefton as the coast is accreting at Ainsdale but is eroding around Formby.

4.11 Loss of supporting habitat outside of the European site boundary

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 and, to a lesser extent, amphibians 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 appropriate assessment.

This topic has been subject to ongoing work by Merseyside Environmental Advisory Service which is seeking to identify sensitive areas for Bewick's swan, whooper swan and pink-footed goose in relation to agricultural land in Merseyside and West Lancashire (these being the main SPA species that are known to extensively utilize fields outside the SPA boundary). The State of Lancashire's Birds (2013)⁵⁷ identifies areas of sensitivity for both whooper swan and pink-footed goose. It is noted that Natural England will shortly be publishing information regarding pink-footed goose and whooper swan.

The locations of the areas sensitive to whooper swans and pink-footed goose are located adjacent to the current urban areas within Sefton. These bird species utilise arable and

¹⁶ Defra. 2005. Coastal Squeeze – Implications for Flood Management. <http://www.defra.gov.uk/environ/fcd/policy/csqueeze.pdf>

⁵⁷ White, S.J. (Ed.), McCarthy, B., Dunstan, S., Martin, S.J., Harris, R.J., Hulme, G. and Marsh, P.J. (2013). The State of Lancashire's Birds: An atlas survey of the breeding and wintering birds of Lancashire and North Merseyside, 2007-2011. Lancashire and Cheshire Fauna Society, Rishton. <http://www.lacfs.org.uk/Lancs%20Birds.html>

grassland fields to graze in during the winter months. As such, any loss of these habitats could have a likely significant effect upon the features of the designated sites within supporting habitats.

5. HRA – TEST OF LIKELY SIGNIFICANT EFFECTS

The following Chapters set out the HRA Test of Likely Significant Effects carried out as part of this HRA/AA report. Whilst all results are presented in this report, this section serves to illustrate the iterative nature by which the HRA/AA has been carried out alongside the development of the Sefton Local Plan.

5.1 HRA of Sefton Core Strategy (2011)

The Council undertook public consultation on a number of Options for the future of Sefton in 2011. This was carried out under the banner of the Core Strategy. New regulations have given a different name to the development plan for an area. This is now known as the Local Plan. Since this time a new Local Plan has been produced for Sefton, which includes all policies not just strategic allocations. The Local Plan will replace the Sefton Unitary Development Plan which was adopted in 2006. . The Local Plan is the document subject to HRA within this report.

5.1.1 *Test of Likely Significant Effects of Site Allocations for Housing and Employment/Mixed Use*

The HRA Test of Likely Significant Effects table of site allocations is given in Appendix 1. Site allocations included within the Sefton Local Plan are made up of the following site uses:

- Housing allocations including traveller site allocations
- Strategic mixed use allocations
- Strategic employment locations
- Employment allocations
- Safeguarded land allocations
- Urban golf course site allocations

A Test of Likely Significant Effects was carried out to consider the likelihood of sites for allocation resulting in the loss of supporting habitat outside of the SPA/Ramsar boundary and/or disturbance to qualifying bird species of the SPA/Ramsar⁵⁸. Where sites for allocation were found to be located in a sensitive area, aerial photographs and OS mapping were also used to identify existing habitats and the likely suitability for these species. With respect to allocated sites located within the Thornton to Switch Island Link development area, reference was also made to the findings of the wintering bird surveys contained within the Environmental Statement⁵⁹. Where a site for allocation was considered to be located in potentially suitable habitat *and* within a sensitive area for, whooper swan and pink-footed goose (i.e. the site may result in significant effects on these qualifying species by loss of supporting habitat), that site allocation was screened in. Existing HRAs supporting prospective developments have been consulted where publically available.

⁵⁸ This is based on unpublished work currently being undertaken by Merseyside Environmental Advisory Service in order to identify sensitive areas

⁵⁹ Thornton to Switch Island Link Environmental Statement Appendix E.2 ix (Wintering Bird Survey contained 2007/8 and 2008/9)

The following **employment/mixed use** sites were **screened in** as there were impact pathways with potential likely significant effects upon European designated sites. These are:

- MN2.4: Land at Moss Lane, Churchtown South
- MN2.8: Former Ainsdale Hope High School, Ainsdale
- MN2.12: Land north of Brackenway
- MN2.13: Land at West Lane, Formby
- MN2.17: Land at Altcar Lane, Formby
- MN2.18: Powerhouse site, Phase 2, Formby
- MN2.19: Land at Andrew's Close, Formby
- MN2.23: Land at Southport Old Road, Thornton
- MN2.24: Land at Holgate, Thornton
- MN2.28: Land North of Kenyon's Lane, Lydiate
- MN2.29: Former Prison Site, Park Lane, Maghull
- MN2.30: Land East of Waddicar Lane, Melling
- MN2.31: Wadacre Farm, Melling
- MN2.32: Land South of Spencers Lane, Melling
- MN2.33: Land at Wango Lane, Aintree
- MN2.41: Former St Wilfred's School, Bootle
- MN2.46: Land East of Maghull
- MN2.49: Land south of Formby Industrial Estate
- MN8.1.: Land north of Lamshear Lane, Lydiate
- MN2.9: Former St John Stone School, Meadow Lane, Ainsdale
- MN2.10: Meadows ATC, Sandbrook Road, Ainsdale

The following **Urban Golf Course** sites have been **screened in**

- NH6: Southport old Links Golf Course
- NH6: Hesketh Golf Course

The following **traveller** sites were **screened in**:

- HC5.4: Land at New Causeway, Formby
- HC5.3: Land at Plex Moss Lane, Ainsdale

The above site allocations will individually need to be subject to a dedicated project level HRA accompanying the planning application and it is necessary to develop mechanism(s) as part of the policy for each allocated site that will enable an adverse effect on the European site to be adequately mitigated or avoided. Recommendations for how that could be achieved, drawing on policy precedent for surrounding Merseyside authorities, are discussed in Chapter 7 (Appropriate Assessment of the Ribble and Alt Estuaries SPA/Ramsar). For some sites it may be sufficient to provide dedicated non-breeding bird surveys of the site and surrounding area to provide conclusive evidence that a site is or is not supporting habitat to the European designated sites.

A Test of Likely Significant Effects was conducted on other sites which were not allocated. This includes sites put forward at the Preferred Options stage but not carried forward to the Publication stage and sites put forward by developers or landowners during the Preferred Options consultation. This Test of Likely Significant Effects assessment (for those sites not allocated in the Local Plan) is presented in Appendix 3 for information. Sites identified during the Preferred Options consultation but not allocated in the submitted Local Plan are not discussed further within the body of this document.

5.1.2 Test of Likely Significant Effects of the Sefton Local Plan Policies

The Test of Likely Significant Effects Table for the Local Plan Policies (Appendix 2) and Strategic Allocations (Appendix 1) identify those policies which could result in pathways of impact to Natura 2000 sites.

Detailed policies within the Sefton Local Plan were assessed for likely significant effects. Some had impact pathways and could not be screened out. ***Policies screened in*** and/ or discussed within the following chapters of the document are as follows:

Sustainable Development:

- Principles of Sustainable Development

Meeting Sefton's needs:

- MN1 Housing and employment requirement
- MN2 Housing, employment and mixed use allocations
- MN3 Land east of Maghull
- MN5: Strategic allocation: Land south of Formby Industrial Estate
- MN6 Sefton's Green Belt
- MN7 Safeguarded Land

Economic development and regeneration:

- ED1 The Port and Maritime Zone
- ED2: Development in Town Centres, District Centres, Local Centres and Local Shopping Parades (and other locations)
- ED4: Mixed Use Areas
- ED5: Tourism

- ED6: Regeneration Areas

Housing and communities:

- HC5: Planning for Gypsies and Travellers
- HC7: Education and care institution sites in the urban area

Infrastructure

- IN2: Transport

A quality, healthy environment for Sefton:

- EQ1: Strategic Policy Planning for a healthy Sefton
- EQ3: Accessibility
- EQ8: Managing flood risk and surface water

Natural and heritage assets:

- NH6: Urban golf courses

5.2 Test of Likely Significant Effects within this Report

This HRA report presents the HRA Test of Likely Significant Effects results of the strategic site allocations and policies contained within the most recent iteration of the Local Plan.

Where strategic sites and policies are screened in, an appropriate assessment is carried out. This is presented in the subsequent chapters of this HRA report with respect to each European Site (Chapters 6-10). Any recommendations are made within the subsequent Chapters of this report.

6. SEFTON COAST SPECIAL AREA OF CONSERVATION (SAC)

6.1 Introduction

Located within Sefton, the Sefton Coast Special Area of Conservation (SAC) (approximately 4,560ha) consists of a mosaic of sand dune communities comprising a range of stages from embryonic (i.e. dune formation) to more established communities.

6.2 Reasons for Designation

The Sefton Coast qualifies as an SAC for both habitats and species. Firstly, the site contains the Habitats Regulations 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; and
- Atlantic decalcified fixed dunes (*Calluno-Uliceteta*): 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 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

The dune habitats of the Sefton Coast SAC are dependent upon natural coastal processes of accretion and erosion. Various human activities that interrupt natural sedimentation and deposition patterns within the Liverpool Bay have had an effect on the wildlife value of these dunes and their existence. 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’⁶⁰(). More recently, the dunes have been partially stabilised through maintaining their natural vegetation, 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 production⁶¹.

Based on our professional judgment the environmental requirements of the Sefton Coast SAC are mainly the need:

- to reduce the fragmentation of habitats, and the impact of fragmentation, to provide stepping stones for the movement of species;

⁶⁰ Liverpool Hope University College, (2006). <http://www.sandsoftime.hope.ac.uk/change/history.html>

⁶¹ Liverpool Hope University College, (2006). <http://www.sandsoftime.hope.ac.uk/change/history.html>

- to counter negative changes to low-nutrient habitats resulting from atmospheric nutrient deposition;
- to manage the continuing coastal erosion at Formby Point which leads to a squeeze on habitats. This management would not constitute 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;
- to consider the potential impact of climate change on shorelines, wetlands and dunes;
- to manage abstraction from the underlying aquifer for sources such as golf courses. The aquifer is critical to some features of the site, such as the humid dune slacks and the great crested newts;
- to manage recreational pressures and direct disturbance to qualifying habitats;
- to develop and maintain management practices which sustain the conservation value of the area; and
- to avoid loss of great-crested newt habitat, and habitats being further fragmented by distance or barriers.

6.4 Key potential pressures from Sefton

From Test of Likely Significant Effects (see Appendices 1 and 2), the environmental requirements identified above could be impacted upon by site allocations and policies within the Local Plan. The following impacts could theoretically interfere with the above environmental requirements and processes on the SAC:

- Increased and excessive recreational pressure;
- Coastal squeeze associated with prevention of dune roll-back in the face of sea level rise; Deterioration in local air quality and thus increased nitrogen /sulphur deposition;
- Habitat loss through mineral extraction; and
- Dredging and port activities impacting on the sediment regime.

6.5 Role of other plans and projects

6.5.1 *Projects*

Mersey Ports Masterplan (Consultation draft; July 2011), including the potential development of the Seaforth Nature Reserve and construction of the Seaforth River Terminal (now known as Liverpool 2, a deepwater container port expansion in Sefton now under), new opportunities for renewable energy, development of single and multi-user port centric warehousing and of new processing facilities for imported commodities, potentially leading to the Liverpool SuperPort – An integrated port, airport, intermodal terminal, freight and commercial network based upon the Port of Liverpool, the Manchester Ship Canal, Liverpool John Lennon Airport and the Mersey Multimodal Gateway (Liverpool City Region).

6.5.2 *Plans*

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. It should be noted that at the time of writing (January 2015) the Welsh Government has not 'agreed' the 'IROPI' case for these plans, although that does not affect this particular HRA.

Core Strategies/ Local Plans for Liverpool, West Lancashire, Knowsley, Wirral and St Helens, the Mersey Heartlands Growth Point Programme of Delivery (Wirral and Liverpool) and

Liverpool and Wirral Waters Development masterplans – possible water quality, air quality and as a result of delivery of dwellings and associated commercial development over the next 20 years; and

Merseyside Joint Waste Local Plan – possible impacts due to water quality, air quality and wildfowl disturbance or chick predation. However, since this Local Plan was itself subject a recent HRA and was found to be sound, it has addressed its own contribution to any ‘in combination’ effect that may otherwise arise.

6.6 Appropriate Assessment

The following section is the Appropriate Assessment. This is divided into pathways identified during Test of Likely Significant Effects with a subsection ‘Appropriate Assessment’ and a subsection ‘Existing Mitigation and Recommended Changes to the Local Plan’.

6.7 Recreational Trampling

6.7.1 *Appropriate Assessment*

Delivery of approximately 11,070 net dwellings across Sefton to 2030 has potential to lead to increased demand for recreational opportunities within Sefton. Sefton has an ageing population and the overall population is expected to rise by 2031. An ageing population may carry with it some increase in impacts such as recreational pressure through the increase leisure time available (as discussed in Chapter 1).

Research carried out in 2008, presented in ‘Marketing Sefton’s natural coast – Evaluating the impact’⁶² identified that 43% of visitors were aged 55+ (23% over the age of 65). This and other studies⁶³ have estimated that half of the recreational users to be ‘local residents’ (i.e. residents of Sefton), with 17% from other Merseyside areas. With respect to reasons for visiting the coast the main reason cited by over half of the respondents was either dog walking/walking/fresh air or visiting the coast. Nature based attractions including visiting the squirrels, bird watching and fishing accounted for approximately 20% of the visitors in both studies. The majority of visitors were focused on the Formby and Crosby coastline.

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 diversity.

The following Local Plan policies have the potential to result in an increase in recreational pressure on the Sefton Coast SAC through the provision of housing and/or recreational facilities within close proximity to Sefton Coast:

- MN1 Housing and employment requirement
- MN2 Housing, employment and mixed use allocations
- MN3 Land east of Maghull
- MN6: Land at Brackenway, Formby
- MN8: Safeguarded Land
- ED4: Mixed use areas.
- ED5: Tourism

⁶² Sefton Council (2010) included in Sefton’s Dynamic Coast Proceedings of the conference on coastal geomorphology, biogeography and management 2008

⁶³ England’s North West Research Service for Economic Development and Tourism (May 2009) Sefton’s Natural Coast Local Users of the Coast (Version 2)

- HC5: Planning for Gypsies and Travellers
- HC7: Education and care institution sites in the urban area
- IN2: Transport
- EQ1: Planning for a healthy Sefton
- EQ3: AccessibilityHN6: Urban Golf Courses

Housing allocations MN2.8 Former Ainsdale Hope School, Ainsdale, MN2.12 Land north of Brackenway, Formby MN2.13 Land at West Lane, Formby were also found to have the potential to increase recreational pressure on Sefton Coast SAC alone due to size and / or proximity. The remaining housing allocations were found to have potential to lead to increased recreational pressure upon the European designated sites in-combination.

6.7.2 Existing Management and Recommended Changes to the Local Plan

The Sefton Coast, as a reflection of its existing high appeal for visitors and high conservation value, has a suite of plans and strategies which are overseen by the Sefton Coast Partnership (SCP); formerly the Sefton Coast Management Scheme. Two notable examples are the Nature Conservation Strategy and Beach Management Plan. The Council intends to update – with its partners in the Sefton Coast Partnership as appropriate – the Coast Management Plan or what may be termed a ‘Coastal Strategy’, and the Beach Management Plan. These will contribute to the aims of managing sites, managing visitor pressure and related monitoring of visitor numbers, linked to the continued and enhanced use of the Coast for recreation, leisure and tourism with the economic and health benefits this will bring.

The Sefton Coast Management Scheme was established in 1978. It initially only covered the dune coast and was concerned mainly with nature conservation and recreation. The SCP covers the whole coast from the docks at Seaforth to Sefton’s boundary north of Southport, and its scope has extended to embrace beach management, woodland management, coastal engineering issues and environmental quality⁶⁴.

Currently the SCP includes twelve partner organisations and up to 2011 was led and coordinated by Sefton Council. The SCP is currently considering a review to consider greater community involvement to help understand the difficult issues on a changing coast. In recent years the cooperative approach to management has helped to give greater protection to rare habitats and wildlife and has also enabled new recreation facilities and attractions such as the coastal footpath, Antony Gormley’s ‘Another Place’ the Iron Men statues at Crosby beach) and the Crosby Lakeside Adventure Centre to be developed. Some achievements of the SCP include:

- the creation of a permanent Ranger Service for the coast by Sefton Council, followed by on-going amalgamation of coastal operational services to develop one of the only of its type;
- the establishment of a coastal footpath running the length of the coast and the promotion of public transport and a Sefton’s Natural Coast brand;
- a review of beach management, and the implementation of a new zoning scheme;
- Major habitat improvement schemes and maintaining the SSSI in good condition but not in favourable condition;
- Acquiring coastal land at Formby, Ravenmeols, Hightown and Freshfield by a number of organisations including National Trust, Sefton Council and Lancashire Wildlife Trust;
- RSPB established presence in Sefton at Marshside;
- A Sefton Coast Woodlands Forest Plan under review 2014;
- The implementation of a Beach Management Plan in 1993

⁶⁴ www.seftoncoast.org.uk

- Sefton Coast *Life* project 1999 -2003
- A Sefton Coast Nature Conservation Strategy 2007-2015;
- A Sefton's Natural Coast Tourism and Marketing Plan;
- Establishment of the Biodiversity and Access Inclusion Project;
- Adaptation Strategy; and
- Heritage Lottery Fund Sefton Coast Landscape Partnership Scheme.

However, although the framework has been working adequately, the scope for improvements in addressing existing recreational pressures should be considered. It would therefore not be unreasonable to conclude that the management strategy may be placed under greater pressure as a result of the increased population of Sefton, without a renewed or increased commitment of time and resources. However, as set out above, the Council intends to update – with its partners in the Sefton Coast Partnership as appropriate – the Coast Management Plan or what may be termed a 'Coastal Strategy', and the Beach Management Plan to ensure increased recreational pressure resulting from any policies within the local plan do not have an adverse effect upon the European designated sites in-combination.

The Sefton Coast Partnership⁶⁵ continues to consider the needs of balancing visitor requirements with protection of the environment through the development of 'gateways' at key access points⁶⁶. At these sites the need for investment in and maintenance of car-parks, paths, toilets, lifeguards and rangers, staff accommodation, catering facilities and information is recognised. As such, a mechanism already exists to control the impacts of increased visitors to the SAC, provided it can be adequately resourced to deliver the increased management likely to be required. It is understood that it is this mechanism (the Council updating the Sefton Coast Partnership) that will provide adequate mitigation to ensure no likely significant effect upon the European designated sites as a result of increased housing provisions as set out within the Local Plan.

Residential allocations that have the potential to lead to increased recreational pressure upon the European sites alone (i.e. not in-combination with other housing allocations) (MN2.8, MN2.12, and MN2.13), should provide a project specific HRA. Any planning application should seek to avoid increased recreational pressure upon the SAC and address any likely significant effects upon these habitats as a result of the individual project alone. It is noted that MN2.12 is large enough that appropriate site specific solutions could be sought within the allocated site.

The following policies provide a basis for avoidance or mitigation of adverse effects that may arise through recreational pressure on the coast via the following text:

- ED8: Southport Seafront. *'Development that would be detrimental to the character of the Seafront or its function as a regionally important centre for tourism, or harm the integrity of adjacent internationally important nature sites, will not be permitted.'*
- NH2: Protection and Enhancement of Nature Sites, Priority Habitats and Species. *'Development which may result in a likely significant effect on an internationally important site must be accompanied by sufficient evidence to enable the Council to make a Habitats Regulations Assessment.'*
- NH4: The Sefton Coast and Development *'Development will be permitted in principle where it is demonstrated that the proposals: Will not adversely affect the integrity of sites of international nature conservation importance, taking into account appropriate*

⁶⁵ www.seftoncoast.org.uk

⁶⁶ <http://www.sefton.gov.uk/pdf/Audience%20Plan%20web%20document%20PDF.pdf>

mitigation, or as a last resort, compensation. Development which may have an adverse effect on internationally important nature sites will only be permitted where it can be demonstrated that there are both no alternatives and imperative reasons of overriding public interest and where compensatory provision has been made'

It is recommended that the following text or similar is included within:

- ***Policy SD2 (Principles of Sustainable Development) - the policy should include specific protection for European designated sites, with the following text: 'to help secure these principles all development in Sefton must: ...Not adversely affect the integrity of internationally important nature sites or their supporting habitats.'* Not including this text would open up a number of additional policies to Likely Significant Effects upon the designated sites. In addition, it is recommended that to increase robustness of the Local Plan, it is recommended that policy SD2 includes text referring to the need for project specific Habitats Regulations Assessment where required to ensure the continued integrity upon European designated sites. It is recommended that the following principle is included within this policy. 'Not adversely affect the integrity of internationally important nature sites or their supporting habitats. Project specific Habitats Regulations Assessment are undertaken where required to ensure the continued integrity upon European designated sites'.**
- ***Policy ED5 (Tourism) – the policy should include explicit provision for the protection of European designated sites with the following text: 'Tourism development will be supported in principle, subject to there being no adverse effects on the integrity of sites of international nature conservation importance '. This will ensure no Likely Significant Effects upon the European designated sites.***
- ***Policy NH2 (Protection and Enhancement of Nature Sites, Priority Habitats and Species) to provide a further mechanism whereby the requirement for mitigation/compensation can be appropriately assessed 'such mitigation or compensation must be identified before development commences. Any mitigation or compensation must be functional before any likely adverse effect arises and should be accompanied by a dedicated project related HRA/AA'. In addition it is recommended that text is added to policy NH2 to ensure the protection of supporting habitat for features of the SAC.***

The Local Plan makes no reference to mechanisms by which recreational pressure upon the SAC will be managed. **It is recommended that the Sefton Local Plan make a clear commitment to the future delivery of the requirements of the Beach Management Plan (specifically as it relates to recreation management) and to SAC/SPA habitats away from the beach commensurate with the contribution of visitors to the site that arise from Sefton both now and in the future, to the extent necessary to adequately mitigate any adverse effects on the integrity of the site which may otherwise arise.** Current interventions to manage existing levels of recreation pressure include zonation, whereby concentrating facilities (such as laid-out car parks, boardwalks to the beach, fencing to protect dune habitats, trails, information boards, toilets and food and drink outlets) to few areas, and the use of permit access. Levels of recreational interventions required to effectively manage additional recreational pressure resulting from future development within Sefton will need to be above the level that is happening now and will mitigate to appropriate levels. To ensure no impact to European designated sites results, monitoring will be required. To achieve this, Sefton Council needs to work with the other Merseyside Authorities, Merseyside

Environmental Advisory Service, Natural England, Natural Resources Wales and other partners to devise a framework (a Coastal Strategy or similar) for the delivery of enhanced access management to the European sites when it becomes necessary, to be informed by the collation of visitor survey data. This is in line with the approach being undertaken in other local authorities that contain recreation-sensitive internationally important wildlife sites. For example, Shepway District Council in the south-east has committed to working in partnership with the local Wildlife Trust, Natural England and the RSPB to devise a sustainable access strategy for the Dungeness SAC/Dungeness to Pett Level SPA that is intended to match increases in visitor pressure expected over the Shepway Core Strategy period. The first stage, having been commissioned in 2013, is an updated and detailed visitor survey baseline. It is noted that Natural England is commissioning a contract on recreational disturbance on the Liverpool City Region European designated sites to inform a future Strategy.

Examples of measures that may be deployable include new measures such as temporary footpath/access closures during sensitive periods, rerouting of footpaths away from key hotspots introducing improved signage direct visitors away from sensitive areas and Test of Likely Significant Effects of key locations for recreational activity. This could be implemented by existing Wardens. A similar commitment has been made in the Core Strategy of Liverpool⁶⁷ and the Cheshire West and Chester Local Plan⁶⁸. This would demonstrate Sefton's commitment to the continuance of the management plan and its informed enhancement to ensure no adverse effect on the integrity of the SAC. In addition it is recommended that the European designated sites are monitored to ensure no likely significant effects occur as a result the Sefton Local Plan either alone or in-combination. If it is found that an effect is detected as a result (or in part as a result) of the Sefton Local Plan (alone or in-combination), remedial action would be taken in the form of amended access management measures, additional wardening, or temporary closure of the most sensitive routes in addition to other mechanisms.

Finally, it should be recognized that some housing developments (particularly small scale developments of less than 50 dwellings) may not be in a position to provide a bespoke site-specific solution to recreational pressure offsetting. More generally ***Sefton Council's management of its public green space assets should seek to encourage use of sites away from the Coast, and through the SCP continue to manage access and visitor pressure to coastal sites in partnership. The retention, provision and enhancement of public open space within or close to housing development sites, and in Countryside Recreation Areas, will also make an important contribution to managing recreation pressure on the internationally important nature sites on the Sefton Coast.***

6.8 Coastal Squeeze

6.8.1 *Appropriate Assessment*

Delivery of approximately 11,070 new dwellings across Sefton by 2030 has potential to lead to increased demand for development at locations between Sefton Coast SAC and existing development, thus presenting potential for coastal squeeze on the SAC. Evidently housing in locations such as Bootle, Maghull and Lydiat will not create any implications for coastal squeeze. In terms of development of employment sites, an extension of Formby Industrial Estate, a business park at Maghull, or development between Southport and West Lancashire would not have impacts on the SAC through coastal squeeze.

The following policies were considered to have the potential to result in coastal squeeze at Sefton Coast SAC:

- ED8. Southport Seafront; and

⁶⁷ URS (2012) Liverpool City Council Core Strategy Habitat Regulations Assessment

⁶⁸ URS (2013) Cheshire West and Chester Habitat Regulations Assessment Screening

- NH4: The Sefton Coast and Development
- MN1: Housing and Employment Requirements
- MN2: Housing, Employment, and Mixed Use Allocations
- ED1: The Port and Maritime Zone

To a lesser extent, other policies that promote infrastructure, employment, tourism and renewable energy could be located in positions that would contribute to coastal squeeze.

All site allocations assessed were considered to be either too far away from the coast to pose a risk, or were landwards side of a road or railway. The possibility therefore exists that development proposals arising from the Local Plan may come forward that could lead to coastal squeeze.

6.8.2 Existing Mitigation and Recommended Changes to Local Plan

The Local Plan should prevent any development being delivered in areas that may exacerbate coastal squeeze. Some provisions are currently made within the Local Plan to avoid coastal squeeze from occurring.

The following Policies provide a further basis for avoidance of coastal squeeze:

NH4. The Sefton Coast and development,

‘Section 1. Development will be permitted in principle where it is demonstrated that the proposals:

- a) Will not increase the risk of tidal flooding or coastal erosion through their impact on coastal processes*
- b) Will not impair the capacity of the coast to form a natural sea defence or adjust to changes in conditions without risk to life or property*
- c) Will not adversely affect water quality including the quality of the dune aquifer and bathing water quality*
- d) Will not adversely affect the integrity of sites of international nature conservation importance, taking into account appropriate mitigation, or as a last resort, compensation. Development which may have an adverse effect on internationally important nature sites will only be permitted where it can be demonstrated that there are both no alternatives and imperative reasons of overriding public interest and where compensatory provision has been made*
- e) Are required for coastal defence or flood risk management; or*
- f) Are essential landfall facilities for off-shore installations.*

Coastal change

Section 2. In Sefton’s Coastal Change Management Area development proposals must take into account the risk of coastal change and the vulnerability of the development. It must be demonstrated that development in the Coastal Change Management Area:

- a) Is located in accordance with a sequential approach to risk and vulnerability,*
- b) Will be safe from coastal change over its lifetime. Where appropriate, conditions may be used to limit the lifetime of development requiring a coastal location to a temporary period, or to limit its use or occupancy, and to agree the approach for managing the development at the end of its planned life; and*
- c) Provides wider sustainability benefits.’*

- In addition, policies which seek to reduce climate change have an overarching objective of reducing the pressures on coastal sites due to coastal squeeze, for example: EQ7: Energy Efficient and Low Carbon Design

With these policies in place no further recommendations are considered necessary to manage the pressures of coastal squeeze.

6.9 Air Quality

6.9.1 *Appropriate Assessment*

With regards to potential air quality impacts relating to atmospheric sulphur deposition, these will relate largely to shipping and airport expansion. The Site Relevant Critical Load on Air Pollution Information System (APIS) currently indicates that 34% of sulphur deposition within the SAC is due to shipping and ‘other transport’ (the latter category excludes road transport but does include air travel). However, reference to APIS⁶⁹ indicates that the actual SO₂ concentration in the SAC is well below the critical level (according to APIS the concentration⁷⁰ is 1.1 µgm⁻³ compared to a critical level for damage of 20 µgm⁻³).

With regards to eutrophication as a result of atmospheric nitrogen deposition, sand dune succession and petalwort are both vulnerable to excessive nitrogen inputs in that this can increase the development of vegetation and both out-compete petalwort and more rapidly advance sand dune succession to a point of excessive scrub development. Moreover, the Site Relevant Critical Load on APIS for nitrogen deposition indicates that actual nitrogen deposition is 11.9 kgN/ha/yr compared to a critical load (for sand dunes) of 10-20 kgN/ha/yr. The site is therefore already exceeding the lower limit of the critical load. Road transport, air transport and shipping are currently responsible for 16% of nitrogen deposition in the SAC. Since the site is already exceeding its critical load sources of NO_x which will increase nitrogen inputs by more than 1%⁷¹ will at least require project level HRA Test of Likely Significant Effects and could lead to an adverse impact ‘in combination’.

In places, the A565 that runs north-south through Sefton lies within 200m of the SAC. Numerous residential streets lie within 200m of the SAC boundary. However, most of these are separated from the SAC by houses and other buildings which will reduce the dispersal distance of any exhaust emissions, such that the majority of emissions will probably not reach the SAC. The Coast Road runs north – south through the SAC and carries traffic that wish to avoid Southport town centre.

Delivery of approximately 11,070 new dwellings across Sefton by 2030 has potential to lead to increased demand for car travel within Sefton resulting in an increase in traffic that could generate emissions within 200m of the SAC. In addition, Objectives that promote infrastructure, employment and tourism could also lead to increased traffic movements within 200m of the SAC.

Some roads such as Coastal Road at Southport (part of the strategic highway network), and as an example Shireburn Road and Montagu Road do lie unscreened from the SAC.

The following Policies have the potential to lead to reduced air quality on Sefton Coast SAC:

- ED1: The Port and Maritime Zone: Air Quality effects arising from port operation and associated increase in road capacity
- IN2: Transport: As above, this policy encourages improved access to Port of Liverpool by a range of transport types, and the Thornton to Switch Island Improvements

⁶⁹ Air Pollution Information System <http://www.apis.ac.uk/> include date of access.

⁷⁰ For grid reference SD271077

⁷¹ 1% generally being the threshold used by the Environment Agency and Natural England to determine whether a point source can be scoped out as making a contribution that would be effectively inconsequential even when considered ‘in combination’. Exceedence of the 1% threshold does not mean that adverse effects will result but does mean that the project/plan cannot be simply dismissed and further detailed consideration is required.

6.9.2 *Existing Mitigation and Recommended Changes to Local Plan*

The following Policies provide a basis for avoidance or mitigation of adverse effects that may arise through reduced air quality:

- NH2: (Protection and Enhancement of Nature Sites, Priority Habitats and Species) (see section 6.7.2)
- EQ4: Pollution and Hazards: *Development proposals should demonstrate that environmental risks have been evaluated and appropriate measures have been taken to minimize the risks of harm or damage to people, property and the natural environment from: Pollution of the land, surface water, groundwater and the air, Hazardous substances Noise/vibration, dust, odour or artificial light pollution. **It is also recommended that this policy should explicitly include protection to European designated sites, not just the 'natural environment'**.*
- IN2: Transport: There is a strong focus on improving public transport, park and ride facilities and improving walking and cycling routes. Identification that Transport Assessments are required for proposals likely to significantly increase pollution; Provision made to seek developer contribution for necessary mitigation 'to make sure trunk road network runs safely and efficiently' which would also reduce pollution

Based on this information it is concluded that the Sefton Local Plan does provide a system of measures to minimise the contribution to any increase in nitrogen deposition within Sefton Coast SAC. However, **one further amendment to Policy NH2** (Protection and Enhancement of Nature Sites, Priority Habitats and Species) (or pre-amble if required) is recommended. This is as follows:

To make it clear that since the Sefton Coast SAC is already exceeding its critical load, projects/ developments within Sefton that are likely to increase nitrogen inputs into the SAC by more than 1% will require a project level Appropriate Assessment. This will include traffic movements associated with housing. For housing and employment schemes we would advise that the Design Manual for Roads and Bridges criteria are employed in order to ascertain the scale of development that could lead to such an increase in deposition rate; the DMRB states that projects or plans that are likely to result in a net change in vehicle flows (in terms of Annual Average Daily Traffic) on roads within 200m of sensitive sites of less than 1,000 vehicle movements per day (or 200 heavy duty vehicle movements per day) is likely to have a neutral air quality effect. Developments that are likely to lead to changes in flow above this rate should be required to undertake air quality calculations regarding impact on the Sefton Coast SAC. This would be in line with requirements placed on the applications for the Seaforth AFS Merlin Shed extension (where the work demonstrated a positive effect through a reduction in air emissions), Liverpool Waters and a number of Combined Heat and Power projects across the Liverpool City Region⁷².

6.10 Mineral Extraction

6.10.1 *Appropriate Assessment*

Depending on the location of mineral aggregate expansion (Policy 6: Minerals), there is potential that this could result in a direct loss of habitat. The policy does not identify specific locations for mineral extraction, nor does it explicitly state that it would not take place within a European Site boundary

⁷² Consultation with CB at Merseyside Environmental Advisory Service August 2013

6.10.2 Existing Mitigation and Recommended Changes to Local Plan

Policy NH8 (Minerals) states that: *'The developer must demonstrate the proposed location for the development is suitable, taking into account factors such as environmental, geological and technical issues'*

This policy alludes towards the protection of European Sites through its reference to the designated sites, however **it is recommended that this be made stronger by explicit reference to Policy NH2 (Protection and Enhancement of Nature Sites, Priority Habitats and Species which contains the more detailed mechanisms for protecting European Sites, including the need for HRA where appropriate.**

6.11 Conclusion and summary of recommendations– Sefton Coast SAC

With the incorporation of suggested recommendations (summarised below), this HRA/AA has concluded that the Sefton Local Plan would include an adequate policy framework to enable the delivery of measures to adequately protect the Sefton Coast SAC.

Recommendations are as follows:

1. The Local Plan makes no reference to mechanisms by which recreational pressure upon the SAC will be managed. It is recommended that to prevent likely significant effects upon European designated sites as a result of increased recreational [pressure as a result of housing provision, the Sefton Local Plan make a clear commitment to the future delivery of the requirements of the Beach Management Plan (specifically as it relates to recreation management) and to SAC/SPA habitats away from the beach commensurate with the contribution of visitors to the site that arise from Sefton both now and in the future, to the extent necessary to adequately mitigate any adverse effects on the integrity of the site which may otherwise arise.
2. It is recommended that the European designated sites are monitored to ensure no likely significant effects occur within the European sites as a result the Sefton Local Plan. If it is found that an effect is detected as a result (or in part as a result) of the Sefton Local Plan, remedial action should be taken.
3. Residential allocations that have the potential to lead to increased recreational pressure upon the European sites alone (i.e. not in-combination with other housing allocations) (**MN2.8, MN2.12, and MN2.13**), should provide a project specific HRA. Any planning application should seek to avoid increased recreational pressure upon the SAC and address any likely significant effects upon these habitats as a result of the individual project alone. It is noted that MN2.12 is large enough that appropriate site specific solutions could be sought within the allocated site.
4. **Management of Sefton Council's public green space assets should seek to encourage use of sites away from the Coast**, and through the SCP continue to manage access and visitor pressure to coastal sites in partnership. The retention, provision and enhancement of public open space within or close to housing development sites, and in Countryside Recreation Areas, will also makes an important contribution to managing recreation pressure on the internationally important nature sites on the Sefton Coast.
5. **Policy SD2 (Principles of Sustainable Development):** the policy should include specific protection for European designated sites, with the following text: *'to help secure these principles all development in Sefton must: ...Not adversely affect the integrity of internationally important nature sites or their supporting habitats.'* Not

including this text would open up a number of additional policies to Likely Significant Effects upon the designated sites. In addition, it is recommended that to increase robustness of the Local Plan, it is recommended that policy SD2 includes text referring to the need for project specific Habitats Regulations Assessment where required to ensure the continued integrity upon European designated sites. It is recommended that the following principle is included within this policy. *'Not adversely affect the integrity of internationally important nature sites or their supporting habitats. Project specific Habitats Regulations Assessment are undertaken where required to ensure the continued integrity upon European designated sites'*.

6. **Policy ED5** (Tourism): the policy should include explicit provision for the protection of European designated sites with the following text: *'Tourism development will be supported in principle, subject to there being no adverse effects on the integrity of sites of international nature conservation importance'*. This will ensure no Likely Significant Effects upon the European designated sites.
7. **Policy NH2** (Protection and Enhancement of Nature Sites, Priority Habitats and Species): to provide a further mechanism whereby the requirement for mitigation/compensation can be appropriately assessed *'such mitigation or compensation must be identified before development commences. Any mitigation or compensation must be functional before any likely adverse effect arises and should be accompanied by a dedicated project related HRA/AA'*. In addition it is recommended that text is added to policy NH2 to ensure the protection of supporting habitat for feature
8. **Policy NH2** (within policy text or pre-ample if required): To make it clear that since the Sefton Coast SAC is already exceeding its critical load, projects/ developments within Sefton that are likely to increase nitrogen inputs into the SAC by more than 1% will require a project level Appropriate Assessment. This will include traffic movements associated with housing. For housing and employment schemes we would advise that the Design Manual for Roads and Bridges criteria are employed in order to ascertain the scale of development that could lead to such an increase in deposition rate; the DMRB states that projects or plans that are likely to result in a net change in vehicle flows (in terms of Annual Average Daily Traffic) on roads within 200m of sensitive sites of less than 1,000 vehicle movements per day (or 200 heavy duty vehicle movements per day) is likely to have a neutral air quality effect. Developments that are likely to lead to changes in flow above this rate should be required to undertake air quality calculations regarding impact on the Sefton Coast SAC
9. It is recommended that **Policy NH8 (Minerals)** be made stronger by explicit reference to Policy NH2 (Protection and Enhancement of Nature Sites, Priority Habitats and Species) which contains the more detailed mechanisms for protecting European Sites, including the need for HRA where appropriate.

7. RIBBLE AND ALT ESTUARIES SPECIAL PROTECTION AREA / RAMSAR SITE

7.1 Introduction

The Ribble and Alt Estuaries Special Protection Area (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, 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 and during migration, 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 goose *Anser brachyrhynchus*) utilise feeding areas on agricultural land outside of the SPA boundary. There is considerable interchange in the movements of wintering birds between this site and Morecambe Bay, the Mersey Estuary, the Dee Estuary and Martin Mere and the recently established roost at Simonswood Moss.

7.2 Reasons for Designation

The Ribble and Alt Estuaries site is designated as an SPA for its Birds Regulations Annex I species, both breeding, over-wintering and during migration, 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 *Cygnus cygnus*: 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 goose *Anser brachyrhynchus*, pintail *Anas acuta*, redshank *Tringa totanus*, sanderling *Calidris alba*, shelduck *Tadorna tadorna*, teal *Anas crecca* and wigeon *Anas penelope*. 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 to 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 *Anas acuta* and dunlin *Calidris alpina alpina*.

The Ribble and Alt Estuaries also qualify as a Ramsar site as it meets criterion 2 by supporting over 40% of the UK population of Natterjack toad *Bufo Epidalea*. 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 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 relatively isolated (North Merseyside Biodiversity Action Plan, undated).

7.3 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 later in this report but additionally its own unique pressures. 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 Ribble⁷³.

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 visitors⁷⁴.

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’;

⁷³ Ribble Estuary Strategy Steering Group, 1997, p.15

⁷⁴ (Ribble Estuary Strategy Steering Group, 1997, p.10).

- 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 foreshore⁷⁵
- that there is 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)^{76, 77}
- Ramsar matters
- 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, 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; and
- water abstraction, conifers and scrub lower the water table locally and reduce 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 much more informal within the Ribble Estuary itself.

7.4 Key potential pressures from Sefton

From the environmental requirements that have been identified above it can be determined that development at Sefton arising from the Local Plan could interfere with the above environmental requirements and processes on the SPA/Ramsar:

- Excessive recreational pressure (including water based recreation) leading to direct disturbance to qualifying bird species or indirect effects through pollution, litter, and related development along the foreshore (Wildlife Trust, 2006⁷⁸);

⁷⁵ 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 July 2009).

⁷⁶ 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 July 2009).

⁷⁷ Ribble Estuary Strategy Steering Group, 1997, p.10 & p15

⁷⁸ 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 July 2009).

- Potential for direct land take from off-site agricultural land supporting habitat outside the SPA/Ramsar boundary;
- water quality arising from construction of Port developments, increase in commercial shipping, increase in houses resulting in pressure on existing sewage treatment works, untreated runoff containing inorganic and organic compounds;
- Coastal squeeze;
- Deteriorating air quality as a result of increased deposition of SO₂/NO_x through increased shipping or vehicle movements following proposals to develop port and associated road capacity; and

7.5 Role of other plans and projects

Due to the overlap in geographical area of the European sites, the same projects and plans (as discussed in the Chapter 6) could act in combination. In addition, the following plans and projects are considered relevant to the Ribble and Alt Estuaries SPA/Ramsar:

- Liverpool City Region Renewable Energy Capacity Study;
- Gwynt Y Môr Offshore Windfarm Project;
- Burbo Bank offshore windfarm extension;
- Frodsham Windfarm;
- other Merseyside/Lancashire Local Plans supporting renewable energy. There is a possible impact on waterfowl flightpaths between the Ribble and Alt Estuaries SPA and other European sites depending upon the degree of wind power and potentially solar power involved and the location of turbines, including the new roost at Simonswood Moss.

7.6 Appropriate Assessment

The following chapter is the Appropriate Assessment. This is divided into pathways identified during Test of Likely Significant Effects with a subsection 'Appropriate Assessment' and a subsection 'Existing Mitigation and Recommended Changes to the Local Plan'.

7.7 Loss of Supporting Habitat

7.7.1 *Appropriate Assessment*

Policies and proposed site allocations put forward by the Local Plan have the potential to result in loss of supporting habitat for qualifying bird species of the Ribble and Alt Estuaries SPA/Ramsar, in particular through loss of agricultural habitat.

Appendix 1 identifies those site allocations which have been found to be likely to result in loss of supporting habitat for the Ribble and Alt Estuaries SPA/Ramsar.

In addition the following policies have the potential to result in further loss of supporting habitat within Sefton, not covered by the site allocations assessed, depending on where development is located:

- MN1: Housing and Employment Requirements
- MN2: Housing, Employment, and Mixed Use Allocations
- MN3: Strategic allocation - Land east of Maghull
- ED1: The Port and Maritime Zone
- ED5: Tourism
- IN2: Transport

- MN6: Sefton's Green Belt
- MN7: Safeguarded Land
- ED2: Development in Town Centres, District Centres, Local Centres and Local Shopping Parades (and other locations)
- NH6: Urban Golf Courses

7.7.2 *Existing Mitigation and Recommended Changes to Local Plan*

Policy NH2 of the Local Plan includes protection against loss of supporting habitat as follows:

'Development which may result in a likely significant effect on an internationally important site must be accompanied by sufficient evidence to enable the Council to make a Habitats Regulations assessment. Adverse effects should be avoided, or where this is not possible they should be mitigated, to make sure that the integrity of internationally important sites is protected. Development which may adversely affect the integrity of internationally important sites will only be permitted where there are no alternative solutions and there are imperative reasons of overriding public interest, and where compensatory provision has been made. This also applies to sites and habitats outside the designated boundaries that support species listed as being important in the designations of the internationally important sites.'

If supporting habitat were to be lost to any development, then the applicant would need to determine (a) how significant it was (for example, whether it was regularly used by more than 1% of the population of qualifying bird species) and if necessary (b) whether it would be possible to avoid the impact. If this is not possible then (c) the applicant should seek to provide mitigation within the site. If this is not possible (d) and over-riding imperative reasons of public interest (IROPI) exists, then compensatory habitat may be used to replace it in allocation reasonably close to the Estuary and to facilitate the delivery of functional habitat before development took place, in accordance with policy NH2 'Protection and Enhancement of Nature Sites, Priority Habitats and Species'. In addition:

1. **Appendix 1 of the HRA identifies sites located within land parcels that could lead to the loss of supporting habitat. The appropriate project level detail is not available at the Plan level. To ensure appropriate protection of the integrity of the SPA/ Ramsar site bird populations and the amphibian populations of the Ramsar site, the following should be undertaken:**
 - **Appropriate species surveys (wintering bird/ natterjack toad) to determine presence/ likely absence of target species.**
2. **Project specific HRA**

Sites MN2.23, MN2.24 and MN2.32 have additional recommendations as follows:

- **MN2.23: A survey to determine habitat type and land use should be conducted to ascertain suitability for SPA bird species. If required a non-breeding season bird surveys would be required to confirm their continued presence. If required the site should be subject to a project specific HRA.**
- **MN2.24: A survey to determine habitat type and land use should be conducted to ascertain suitability for SPA bird species. If required a non-breeding season bird surveys would be required to confirm their continued presence. If required the site should be subject to a project specific HRA.**
- **MN2.32: The site is bounded to the south by the M57 from which it is screened by a belt of trees, visual disturbance is unlikely. Acoustic disturbance from the M57 to pink-footed goose is possible. The presence of pink-footed goose cannot be screened out.**

If the above recommendations are included within the Local Plan policies, it is concluded that appropriate mechanisms are in place adequately assess and mitigate loss of supporting habitat.

The LPA is committed to preparing a Supplementary Planning Document to provide more detail on the issue of ensuring the provision of functionally linked compensatory habitat for the loss of supporting habitat for pink-footed geese and other bird features of the SPA and Ramsar sites. This includes a strategic approach to providing alternative feeding habitat for pink footed geese populations associated with the Ribble & Alt Estuaries SPA. The SPD will detail:

- How habitat provision and site management could be delivered in order to maintain and enhance feeding habitat for pink footed geese, for example in, or offsite from allocations which are Green Belt sites and are supporting habitat for pink-footed goose:
- How to deliver alternative feeding areas - Firstly applicants will consider options to secure mitigation areas on land in the control of the landowner or developer and land should be secured to provide feeding habitat for pink footed geese through amending farming practices (including no shooting within mitigation areas and amending crop types), arable revision and/or supplementary feeding.
- If a mitigation area(s) cannot be secured within the ownership of the development/landowner then land within the LCR Nature Improvement Area (NIA) Focus Area should be considered as follows:
- Use of the NIA focus areas to provide improved management and mitigation – usually by the developer or landowner leasing land to manage or managing it in agreement or partnership with the landowner using an agreed legal or financial mechanism. Benefit of a joint approach across the LCR to help meet development needs and HRA compliance land should be secured to provide feeding habitat for pink footed geese through:
 - amending farming practices (including no shooting within mitigation area and amending crop types); and,
 - arable revision and/or supplementary feeding.

It is noted that the LPA will work with Natural England on the scope and preparation of the SPD. **It is recommended that amendments to the supporting text of Policy NH2 (Protection and Enhancement of Nature Sites, Priority Habitats and Species) reflect the aforementioned commitment of the LPA in preparing an SPD to provide detail to ensure the provision of functionally linked compensatory habitat for the loss of supporting habitat for pink-footed geese and other bird features of the SPA and Ramsar sites.**

7.8 Recreational Disturbance

7.8.1 *Appropriate Assessment*

Although the coast that lies adjacent to the Ribble and Alt Estuaries SPA/Ramsar site draws tourists from across the North West due to the proximity of Blackpool and its tourists, in particular, these tourist activities are focused upon the Ribble Estuary which is the furthest part of the SPA/Ramsar site from Sefton. With regard to visitors from Merseyside the southern part of the site (i.e. that largely contiguous with the Sefton Coast SAC) is of greater relevance.

As the southern part of the Ribble and Alt Estuaries SPA/Ramsar which largely falls within the same geographical area as Sefton Coast SAC, the recreational pressures described for Sefton

Coast SAC (in Chapter 6 above) are largely applicable to this site. Two key differences are that recreational pressures in the Ribble and Alt Estuaries SPA/Ramsar site relate more to the bird interest, and some species for which the site is designated (e.g. nesting terns) may be subject to different recreational disturbance as they use slightly different habitats than those for which the SAC was designated (i.e. sandflats and intertidal mudflats rather than coastal dunes). Furthermore, since most of the interest of the SPA is in its non-breeding birds, the risk of recreational disturbance may be lower since there will be less recreational activity in winter. Having this said, species (such as common turn and ruff) are designated as breeding features. 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/protected but toadlets leaving these ponds would be more subject to disturbance).

Both the key species and the habitats that support SPA/Ramsar birds and natterjack toad are susceptible to recreational pressure arising both from the land (particularly dog walking) and from waterborne recreation.

The same policies/ allocated sites described for Sefton Coast SAC in Chapter 6 above are considered to have the potential to result in an increase in recreational pressure and disturbance to qualifying bird species of the Ribble and Alt Estuaries SPA/Ramsar.

7.8.2 Existing Mitigation and Recommended Changes to Local Plan

Mechanisms proposed for Sefton Coast SAC (Chapter 6.7.2) are also applicable to this section. Specifically, it is recommended that the Sefton Local Plan makes a clear commitment to the future delivery of the required Beach Management Plan (specifically as it relates to recreation management) commensurate with the contribution of visitors to the site that arise from Sefton both now and in the future, to the extent necessary to adequately mitigate any adverse effects on the integrity of the site which may otherwise arise.

7.9 Coastal Squeeze

7.9.1 Appropriate Assessment

There is a possibility that development proposals arising from the Local Plan may come forward that could lead to coastal squeeze, resulting in habitat loss of Ribble and Alt Estuaries SPA/Ramsar. Due to the overlap in geographical area this is described in Chapter 6 in relation to the Sefton Coast SAC.

7.9.2 Existing Mitigation and Recommended Changes to Local Plan

Existing policies that provide mechanisms to avoid coastal squeeze, along with further recommendations for additional text to be included within policy wording has been discussed in Chapter 6.8 in relation to the Sefton Coast SAC.

7.10 Air quality

7.10.1 Appropriate Assessment

As discussed for Sefton Coast SAC, the site is well below the critical level for SO₂, but is exceeding its critical load for nitrogen deposition. Road transport, air transport and shipping are currently responsible for 16% of nitrogen deposition in the SPA (with livestock, imported emissions and 'other' accounting for approximately 75% of nitrogen deposition).

The Site Relevant Critical Load for each bird for which the SPA was designated also seems to indicate that they are not considered likely to be affected by high sulphur deposition. It should

also be noted that APIS (Air Pollution Information System⁷⁹) concludes the effects may be positive for most birds because nitrogen enrichment potentially means more prey species. The only SPA species for which nitrogen deposition is identified on APIS as being potentially negative are black-tailed godwit *Limosa limosa* and curlew *Numenius arquata* (if nitrogen deposition increases the sward height of their grassland foraging grounds); however, sward height is much more strongly influenced by other factors than atmospheric nitrogen deposition such as cut height & frequency, conventional fertilization and grazing.

Policies that may result in a further increase in atmospheric nitrogen deposition have been described for Sefton Coast SAC in Chapter 6 above. Due to the overlap in geographical area these are also applicable to the Ribble and Alt Estuaries SPA/Ramsar site.

7.10.2 Existing Mitigation and Recommended Changes to Local Plan

Existing policies that provide a basis for avoidance and/or mitigation of adverse effects arising through reduced air quality, alongside recommended amendments to the Local Plan have been described for Sefton Coast SAC in Chapter 6 above. Due to the overlap in geographical area this is also applicable to Ribble and Alt Estuaries SPA/Ramsar.

7.11 Water Quality Deterioration

Deterioration in water quality is a key environmental pressure being experienced by the Ribble and Alt Estuaries SPA/Ramsar, namely through heavy metal pollution from industry and sediment disturbance, pollution via rivers from agricultural effluent, and pollution via rivers and drains by both treated sewerage and untreated runoff containing inorganic chemicals and organic compounds from everyday domestic products described in Chapter 4.

A net increase in effluent being discharged into the European site will inevitably mean a higher nutrient loading. The implications of additional discharge which is within existing consented volumes will have already effectively been taken into account in the Environment Agency's Review of Consents process, since the RoC is always based on consented volumes irrespective of whether the actual volume is lower. However, any increases beyond existing consented volumes (even if the works have sufficient capacity) may have implications for the European site.

Potentially significant effects on the Ribble and Alt Estuaries SPA/Ramsar could arise from:

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

Policies that have the potential to result in a reduction in water quality are:

- MN1: Housing and Employment Requirements
- MN2: Housing, Employment, and Mixed Use Allocations
- MN3: Strategic allocation - Land east of Maghull
- MN5: Strategic allocation: Land south of Formby Industrial Estate
- ED1: The Port and Maritime Zone
- ED4: Mixed Use Areas
- ED5: Tourism
- ED6 Regeneration Areas
- HC5: Planning for Gypsies and Travellers
- IN2: Transport
- EQ8: Managing flood risk and surface water

⁷⁹ <http://www.apis.ac.uk/>

It is worth considering at this point that the majority of water quality pressures being experienced by the SPA/Ramsar are likely to arise from the River Ribble, the River Alt, and the River Mersey. With this in mind policies contained within Local Plans/Core Strategies of neighboring boroughs may result an in-combination deterioration in water quality.

7.11.1 Existing Mitigation and Recommended Changes to Local Plan

Avoiding an adverse effect from wastewater discharge is largely in the hands of the water companies (through their investment in future sewage treatment infrastructure) and the Environment Agency (through their role in consenting effluent discharges); however Local Authorities can contribute to an improvement in water quality, particularly through surface water runoff.

Policy EQ8 (Managing Flood Risk and Surface Water) seeks to enhance water quality through supporting sustainable urban drainage systems. Furthermore this policy says that:

‘Site-specific Flood Risk Assessments will be required for all development on sites of 0.5 hectares or more in Critical Drainage Areas as defined in the Strategic Flood Risk Assessment’ and ‘Development must incorporate sustainable drainage systems to manage surface water flooding run-off within the site so that:

- a) Surface water run-off rates and volumes are reduced by 20% (compared to the pre-existing rates) for sites covered by buildings or impermeable hard surfaces, and for greenfield sites do not exceed greenfield rates.*
- b) Surface water discharge is targeted, using a sequential approach and proposals to discharge surface water into anything other than the ground must demonstrate why the other sequentially preferable alternatives cannot be implemented;*
 - i. Into the ground*
 - ii. Into a watercourse or surface water body,*
 - iii. Into a surface water sewer, or*
 - iv. Into a combined sewer.*
- c) Above ground, natural drainage features rather than engineered or underground systems are used.’*

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 Sefton, this is alluded to in the following policies:

- Policy EQ4: Pollution and Hazards includes:

‘1. Development proposals should demonstrate that environmental risks have been evaluated and appropriate measures have been taken to minimise the risks of harm or damage to people, property and the natural environment from:

- *Pollution of the land, water including surface water and groundwater. and the air*
- *Hazardous substances*
- *Noise/vibration, dust, odour or artificial light pollution.*

2. Development will be permitted where it can be demonstrated that:

- *Appropriate measures are incorporated into proposals to reduce pollution to air, water and soil;*

- *There would be no unacceptable risk to the users of the site, occupiers of neighbouring land or the environment from the presence of hazardous substances. Proposals for sensitive uses close to existing sources of pollution must demonstrate, that there will be no detrimental impact on the amenity of existing or future occupiers;*
- *The impact of noise/vibration and lighting will not be significant or can be reduced to an acceptable level.*

3. *Development must lead to no deterioration of, and where practicable improve, water quality; and must protect and enhance Sefton’s waterbodies and water environment.*

- Policy NH4: The Sefton Coast and Development includes:

‘Development will be permitted in principle where it is demonstrated that the proposals:

- a) Increase the risk of tidal flooding or coastal erosion through their impact on coastal processes*
- b) Impair the capacity of the coast to form a natural sea defence or adjust to changes in conditions without risk to life or property*
- c) Adversely affect water quality including the quality of the dune aquifer and bathing water quality*
- d) Adversely affect the integrity of sites of international nature conservation importance, taking into account appropriate mitigation, or as a last resort, compensation. Development which may have an adverse effect on internationally important nature sites will only be permitted where it can be demonstrated that there are both no alternatives and imperative reasons of overriding public interest and where compensatory provision has been made*

Additionally the pre-amble to Policy IN1 (Infrastructure and Developer Contributions) ensures the protection of internationally important sites with regards to water quality within the following paragraphs:

“9.11 Where appropriate, planning conditions or phased legal agreements will be sought to enhance and provide infrastructure to support new developments prior to development being completed, including physical and environmental infrastructure such as water supply and treatment.”

“9.12 Development should only take place once any new water treatment infrastructure is in place. This is not only to service the development but also to avoid an adverse effect on internationally important nature sites. The Environment Agency and United Utilities are responsible for deciding what water-treatment infrastructure may be required.”

Given these safeguards it is considered that likely significant effects due to wastewater impacts will not occur, however this could be further assured if the phasing and delivery of infrastructure was included ‘prior to development commencing’ for absolute clarity. **The following recommended amendments/additions would provide a further safeguard:**

- ***‘Development proposals will be supported by timely provision of an appropriate level of infrastructure prior to development occurring including physical and environmental infrastructure such as water supply and treatment.’***
- ***‘Development will be phased in order to ensure that it only takes place once any new water treatment infrastructure or appropriate retro-fitted technology (e.g. phosphorus stripping) necessary to service the development while avoiding an adverse effect on European sites is in place.’***

It should be made clear that this need will be determined and delivered through interaction with other authorities (United Utilities, the Environment Agency etc.). The Council would not be expected to be the decision-making body that determines the relevant water-treatment infrastructure (if any) that is required to protect European sites (such decisions would be made by the Environment Agency and statutory water company) but they would be involved in ensuring the strategic delivery of housing over the plan period was appropriately phased to match the delivery of this infrastructure.

Development of ports and docks has the potential to cause disturbance to sediment and mobilisation of contamination in addition to direct pollution. However, Policy ED1: Port and Maritime Zone' states that general development within the Port and Maritime Zone will be permitted only if: *'It can be demonstrated that there is no significant risk of any impact upon the important ecological interests of Seaforth Nature Reserve.'*

With specific regard to the expansion of the Port onto Seaforth Nature Reserve (which would result in an adverse effect on the integrity of the European site), the policy states that:

'The expansion of the operational port area onto all or part of the Seaforth Nature Reserve will not be permitted unless the proposals:

- a) *Demonstrate both that there are:*
 - i. *No alternative sites available; and*
 - ii. *'Imperative reasons of overriding public interest' as to why the development should be permitted in this location; and subsequently:*
- b) *Provide suitable compensatory habitat and necessary mitigation for an appropriate period to end once monitoring confirms that the compensatory habitat is performing a function identical to that of Seaforth Nature Reserve; and*
- c) *Demonstrate that there are no likely significant effects on the Liverpool Bay Special Protection Area or other internationally important nature sites.'*

With the inclusion of the recommended changes to policy wording the Local Plan it is considered that the Local Plan would contain sufficient safeguards in place to prevent a significant deterioration in water quality affecting the qualifying features of the Ribble and Alt Estuaries SPA/Ramsar.

7.12 Habitat Loss through Mineral Extraction

7.12.1 *Appropriate Assessment and Mitigation*

This is described for Sefton Coast SAC in Chapter 6 above, and due to overlap of geographical area is applicable to Ribble and Alt Estuaries SPA/Ramsar.

7.13 Conclusion and summary of recommendations: Ribble and Alt Estuaries SPA/Ramsar

With the incorporation of recommended text, this HRA/AA has concluded that the submission Sefton Local Plan would include an adequate policy framework to enable the delivery of measures to adequately protect the Ribble and Alt Estuaries SPA/Ramsar.

Recommendations are as follows:

1. **Appendix 1 identifies sites located within land parcels that could lead to the loss of supporting habitat.** The appropriate project level detail is not available at

the Plan level. *‘To ensure appropriate protection of the integrity of the SPA/ Ramsar site bird populations and the amphibian populations of the Ramsar site, the following should be undertaken:*

1. *Appropriate species survey (wintering bird/ natterjack toad) to determine presence/ likely absence of target species.*
2. *Project specific HRA’*

Sites MN2.23, MN2.24 and MN2.32 have additional site specific recommendations as follows:

2. **MN2.23:** A survey to determine habitat type and land use should be conducted to ascertain suitability for SPA bird species. If required a non-breeding season bird surveys would be required to confirm their continued presence. if required the site should be subject to a project specific HRA.
3. **MN2.24:** A survey to determine habitat type and land use should be conducted to ascertain suitability for SPA bird species. If required a non-breeding season bird surveys would be required to confirm their continued presence. If required the site should be subject to a project specific HRA.
4. **MN2.32:** The site is bounded to the south by the M57 from which it is screened by a belt of trees, visual disturbance is unlikely. Acoustic disturbance from the M57 to pink-footed goose is possible. The presence of pink-footed goose cannot be screened out.
5. It is recommended that amendments to the supporting text of Policy NH2 (Protection and Enhancement of Nature Sites, Priority Habitats and Species) reflect the aforementioned commitment of the LPA (Chapter 7.7.2) in preparing an SPD to provide detail to ensure the provision of functionally linked compensatory habitat for the loss of supporting habitat for pink-footed geese and other bird features of the SPA and Ramsar sites
6. The same policies/ sites for allocation described for Sefton Coast SAC in Chapter 6 are considered to have the same potential to result in an increase in recreational pressure and disturbance to qualifying bird species of the Ribble and Alt Estuaries SPA/Ramsar. Recommendations relating to recreational pressure (Chapter 6.7.2) coastal squeeze (Chapter 6.8), air quality (Chapter 6.9), and mineral extraction (Chapter 6.10) for Sefton Coast SAC are applicable to this designated site.
7. The following text is recommended for inclusion within **Policy IN1 (Infrastructure and Developer Contributions) or its pre-amble:**

‘Development proposals will be supported by timely provision of an appropriate level of infrastructure prior to development occurring including physical and environmental infrastructure such as water supply and treatment.’

‘Development will be phased in order to ensure that it only takes place once any new water treatment infrastructure or appropriate retro-fitted technology (e.g. phosphorus stripping) necessary to service the development while avoiding an adverse effect on European sites is in place.’

8. MERSEY NARROWS & NORTH WIRRAL FORESHORE SPECIAL PROTECTION AREA / RAMSAR SITE

8.1 Introduction

Mersey Narrows and North Wirral Foreshore was classified as an SPA/Ramsar to an SPA/Ramsar on 5th July 2013. The site comprises the following:

- the Mersey Narrows SSSI spread on opposite sides of the Mersey Estuary comprising the foreshore at Egremont (feeding habitat for waders at low tide) and lagoons at Seaforth Nature Reserve (high tide roost and nesting site for terns *Sterna hirundo*); and
- North Wirral Foreshore SSSI between the mouths of the Mersey and Dee estuaries (supports large numbers of feeding waders at low tide and also includes important high-tide roost sites).

The SPA and Ramsar site boundaries are coincident and include only those parts of the intertidal flats and rocky shore at Egremont and North Wirral, and lagoons at Seaforth, that together regularly support bird numbers of European and international importance.

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 (Wirral MBC, 2001).

8.2 Reasons for Designation

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

The SPA is designated for its populations of:

Over-wintering bird species:

- Dunlin *Calidris alba*
- Red knot *Calidris canutus islandica*
- Oystercatcher *Haematopus ostralegus*
- Bar-tailed godwit *Limosa lapponica*
- Great cormorant *Phalacrocorax carbo*
- Grey plover *Pluvialis squatarola*
- Common redshank *Tringa totanus*

Breeding bird species:

- Common tern *Sterna hirundo*

Concentrations of bird species:

- Little gull *Larus minutus*
- Common turn *Sterna hirundo*

The Ramsar site is designated for its populations of:

Ramsar Criterion 4:

During 2004/2005 – 2008/2009, the site supported important numbers of non-breeding little gulls and common terns.

Ramsar criterion 5: Assemblages of birds greater than 20,000.

The 5 year peak mean count between 2004/05 - 2008/09, identified that the Ramsar site supported an average peak of 32,402 individual waterbirds. The most numerous species are as follows:

Species name	Count (period)	% GB population
Cormorant <i>Phalacrocorax carbo</i>	972 individuals (2004/05 - 2008/09)	4.2%
Oystercatcher <i>Haematopus ostralegus</i>	2,718 individuals (2004/05 - 2008/09)	>2000 individuals
Grey Plover <i>Pluvialis squatarola</i>	593 individuals (2004/05 - 2008/09)	1.1%
Sanderling <i>Calidris alba</i>	510 individuals (2004/05 - 2008/09)	2.4%
Dunlin <i>Calidris alpina alpina</i>	7,645 individuals (2004/05 - 2008/09)	1.4%
Redshank <i>Tringa totanus</i>	1,209 individuals (2004/05 - 2008/09)	1.0%

Ramsar criterion 6:

During the winters 2004/05 - 2008/09, the Ramsar site supported:

- 2.4% of the *islandica* subspecies, W Europe/Waddensea/Britain/Ireland (non-breeding) population of knot.
- 2.8% of the *lapponica* subspecies W Europe/NW Africa (non-breeding) population of bar-tailed godwits

8.3 Historic Trends and Current Pressures

Due to its location at the mouth of the Mersey Estuary in the Liverpool Bay and associated hydraulic connections, this site has been subject to the similar changes experienced at Liverpool Bay SPA 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. 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 SPA / Ramsar 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 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';
- 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; and
- 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 (Wildlife Trust, 2006);
- introduction of non-native species and translocation; and
- selective removal of species (e.g. bait digging, wildfowl, fishing)^{80, 81}. (

Modelling in 2006 has shown that due to the natural turbidity of the water, there is only a low risk of excessive algal growth⁸².

8.4 Key potential pressures from Sefton

From the environmental requirements that have been identified above it can be determined that development in Sefton could theoretically interfere with the environmental requirements and processes on the SPA/Ramsar site in the following manner:

- excessive recreational pressure leading to direct disturbance to qualifying bird species or indirect effects through pollution, litter, and related development along the foreshore (Wildlife Trust, 2006)
- 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 although again most of the probable shipping increase would be in Sefton associated with the Seaforth River Terminal;
- water quality arising from construction of Port developments, increase in commercial shipping, increase in houses resulting in pressure on existing sewage treatment works, untreated runoff containing inorganic and organic compounds;
- coastal squeeze;
- deteriorating air quality as a result of increased deposition of SO₂/NO_x through increased shipping or vehicle movements following proposals to develop port and associated road capacity; and
- direct physical loss of lagoons at Seaforth Nature Reserve associated with the Mersey Ports Masterplan .

8.5 Role of other plans and projects

See Ribble and Alt Estuaries SPA/Ramsar for other plans and projects that have the potential to act in combination with the SPA/Ramsar site. This is due to the proximity of the European Sites to each other and similarity in pathways arising from the Local Plan to European Sites.

In particular the Mersey Ports Masterplan (described in detail in Chapter 3.7.3) has the potential to result in significant effects on this European Site.

⁸⁰ 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 July 2009).

⁸¹ Marine Biological Association (2006). http://www.mba.ac.uk/nmb/publications/occpub/pdf/occ_pub_18.pdf

⁸² Mandy North, Natural England, pers. comm. 2007

8.6 Appropriate Assessment

The following section is the Appropriate Assessment. This is divided into pathways identified during Test of Likely Significant Effects with a subsection 'Appropriate Assessment' and a subsection 'Existing Mitigation and Recommended Changes to the Local Plan'.

8.7 Direct Habitat Loss

8.7.1 *Appropriate Assessment*

In order to extend the Port of Liverpool (supported in principle by policy ED1 Port and Maritime and IN2 Transport) Seaforth Nature Reserve would be wholly or partially lost to direct land take. This would result in a direct loss of habitat within the SPA/Ramsar Boundary.

Depending on location, mineral extraction (Policy NH8) could also result in direct habitat loss. This has been discussed with respect to Sefton Coast SAC and is applicable to Liverpool Bay SPA.

8.7.2 *Existing Mitigation and Recommended Changes to the Local Plan*

Policy ED1 (Port and Maritime Zone) states that general development within the Port and Maritime Zone will be permitted only if:

'It can be demonstrated that there is no significant risk of any impact upon the important ecological interests of Seaforth Nature Reserve.'

With specific regard to the expansion of the Port onto Seaforth Nature Reserve (which would result in an adverse effect on the integrity of the European site), the policy states that:

'The expansion of the operational port area onto all or part of the Seaforth Nature Reserve will not be permitted unless the proposals:

- a) Demonstrate both that there are:
 - i. No alternative sites available; and
 - ii. 'Imperative reasons of overriding public interest' as to why the development should be permitted in this location; and subsequently:
- b) Provide suitable compensatory habitat and necessary mitigation for an appropriate period to end once monitoring confirms that the compensatory habitat is performing a function identical to that of Seaforth Nature Reserve; and
- c) Demonstrate that there are no likely significant effects on the Liverpool Bay Special Protection Area or other internationally important nature sites.

Recommended changes to Policy NH8 Minerals have been given with respect to Sefton Coast SAC in Chapter 6.10 and are applicable to Mersey Narrows and North Wirral Foreshore SPA/Ramsar. It is considered that references in the Policy NH2 are sufficient to ensure that the SPA/Ramsar site is protected. Recommendations for additional text for inclusion in Policy NH2 to strengthen its ability to safeguard European Sites have been given in Chapter 6 in relation to the Sefton Coast SAC.

8.7.2.1 **Seaforth Nature Reserve**

As noted above, Policy ED1 (The Port and Maritime Zone) contains reference to development within Seaforth Nature Reserve (located within Mersey Narrows & North Wirral Foreshore SPA and Ramsar site). This would result in the loss of land within European designated sites.

Whist Natural England welcomed changes to Policy ED1 (The Port and Maritime Zone), Natural England requested that additional changes are made to policy ED1 (The Port and Maritime Zone). These were as follows:

1. *Development and re-structuring will be permitted in the Port and Maritime Zone (as shown on the Policy Map) including the expansion of the operational port area to the A565 (Derby Road, Rimrose Road and Crosby Road South), provided that the following criteria are met:*
 - a) *The development is a port-related activity and does not prevent the comprehensive redevelopment of the area for such purposes;*
 - b) *Buildings are suitably designed so that they integrate into and respect the surrounding natural, built and historic environment;*
 - c) *Appropriate landscaping and/or screening and other forms of mitigation are provided to minimise the impact of the development on sites which abut the landward edge of the Port and Maritime Zone;*
 - d) *The development is designed to encourage walking and cycling, and has incorporated, where possible, water and rail as alternatives to road transport; and*
 - e) *Appropriate mitigation is included that ensures that impacts resulting from noise, dust, smells or other forms of pollution on the amenity of other occupiers within the area and on adjacent communities are mitigated and minimised.*
 - f) *It can be demonstrated that there is no significant risk of any impact upon the important ecological interests of Seaforth Nature Reserve.*

2. *The expansion of the operational port area onto all or part of the Seaforth Nature Reserve will not be permitted unless the proposals:*
 - a) *Demonstrate both that there are:*
 - i. *No alternative sites available; and*
 - ii. *Imperative reasons of overriding public interest' as to why the development should be permitted in this location; and subsequently;*
 - b) *Provide suitable compensatory habitat and necessary mitigation for an appropriate period to end once monitoring confirms that the compensatory habitat is performing a function identical to that of Seaforth Nature Reserve; and*
 - c) *Demonstrate that there are no likely significant effects on the Liverpool Bay Special Protection Area or other internationally important nature sites.*

At this level (within the Local Plan) it is not possible or appropriate to fully assess the deliverability of works within Seaforth Nature Reserve and as such the project itself cannot be screened out. However, Natural England agree that at the Plan level, with the inclusion of the above changes to Policy (ED1: The Port and Maritime Zone, policy within the Local Plan provides sufficient safeguard to protect European designated sites at the Plan level and to ensure that the requirements of a Habitats Regulations Assessment are met. As a result Policy ED1 (The Port and Maritime Zone) is screened out.

It is recommended that within the pre-amble of Policy ED1 (The Port and Maritime Zone) reference is included to highlight that the developer needs to be aware that prior to submitting

a planning application for development at Seaforth Nature Reserve, substantial work may be required before development at Seaforth can be considered at the project stage, and that the requirements of Habitats Regulations Assessment must be met to rule out any adverse effects to European designated sites. Considerable evidence relating to all impacts and compensation options (subject to the alternatives and imperative reasons of overriding public interest tests having been met) will need to be provided.

Additional changes have been made to paragraph 7.16 of the Plan with reference to the Policy ED1 (The Port and Maritime Zone) to reflect the above as follows:

‘7.16 The Seaforth Nature Reserve is a Ramsar Site and Special Protection Area and as such is internationally important for nature conservation and is part of the Natura 2000 network of international nature sites.

Under the Habitats Regulations 2010 the Council has a duty to prevent adverse effects on the integrity of sites of international nature importance. This includes sites within, partly within or outside Sefton, such as Liverpool Bay Special Protection Area. As development at Seaforth will result in direct land take in relation to the Mersey Narrows and North Wirral Foreshore Special Protection Area and Ramsar site, along with other effects identified in the HRA of the Local Plan, adverse impacts cannot be ruled out at the Plan stage. As a result it will be necessary to consider alternatives and imperative reasons of overriding public interest before considering compensation measures (Regulations 62 and 66 of the Habitats Regulations, respectively). Accordingly the policy, especially section 2, is clear that planning permission will not be granted for port related development at Seaforth Nature Reserve unless the necessary requirements of the Habitats Regulations can be met. Any compensatory habitat will have to have the same functions as would be lost at Seaforth Nature Reserve. An agreement will need to be in place, before development commences, to protect the adjacent internationally important sites at Crosby and beyond, including the Sefton Coast Special Area of Conservation (SAC), and the Ribble & Alt Estuaries Special Protection Area (SPA) and Ramsar site and Liverpool Bay SPA. This may include specific monitoring and/or mitigation or compensation. More information is set out in the Habitats Regulations Assessment of the Local Plan’.

An additional recommendation is to refer to the Mersey Narrows and North Wirral Foreshore SPA and Ramsar sites in addition to those mentioned in the above paragraph.

8.8 Recreational Disturbance

8.8.1 Appropriate Assessment

Whilst the majority of the European Site is located to the south of the Mersey Estuary (in Wirral) and is therefore a unlikely to capture a large proportion of Sefton residents for regular recreational activities, the Seaforth Nature Reserve site within the SPA/Ramsar designation is located within the southern extent of Sefton. While Seaforth Nature Reserve is an important part of the SPA/Ramsar site ecologically, it is not a significant location for visitors⁸³. Entry is strictly controlled by Port Police and although it does attract a number of bird watchers these are subject to a permit system for entry in to the Port of Liverpool. Due to the restricted access to Seaforth, the Sefton Local Plan is unlikely to result in disturbance to qualifying species as a result of increased recreation.

⁸³ <http://www.rspb.org.uk/groups/Liverpool/places/342393/>

8.9 Water Quality deterioration

8.9.1 *Appropriate Assessment*

The Mersey Narrows and North Wirral Foreshore SPA/Ramsar includes the mouth of the Mersey Estuary (principally Egremont Foreshore on the west bank, and Seaforth on the east bank) as well as the North Wirral Foreshore itself. Egremont Foreshore and Seaforth are separated by approximately 2km, but are considered to be an integral site on the basis of the constant interchange of bird populations. These areas of the Mersey Narrows and North Wirral Foreshore SPA/Ramsar are susceptible to changes in water quality in the Mersey Estuary arising from:

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

A recent study has been undertaken to establish the ecological value and functionality of key points along the Mersey Estuary, which included these two sites within the Mersey Narrows⁸⁴ (Crosby Coastal Park and Egremont Foreshore) described below.

The area around Seaforth Nature Reserve (including Crosby Coastal Park and its Marine Lake) has been identified as particularly important as a high tide roost site, particularly during high spring tides when rocky shores and man-made structures closer to the feeding areas are submerged and not available as roosting sites. The Marine Lake in Crosby Coastal Park is a sheltered roosting location that regularly supported a diverse assemblage of mixed duck species; notably diving ducks and also constitutes important feeding habitat for little gulls on migration. Eurasian Teal and to a lesser extent Common Shelduck were high in comparison to other sites surveyed but again these records were mostly of birds on the Seaforth site. The site is adjacent to the Seaforth Nature Reserve and most of the wading species recorded in Crosby Coastal Park were of birds also recorded at Seaforth Nature Reserve with the exception of black-tailed godwits which were recorded almost exclusively on the Seaforth site. The foreshore areas were used by feeding shorebirds including locally significant numbers of Eurasian Oystercatcher, Sanderling and Ringed Plover. The foreshore areas at Crosby Coastal Park were subject to the greatest level of activity of Eurasian oystercatcher of all sites surveyed. These birds transferred regularly with the site at New Brighton. The exposed sandy beaches were used regularly by this species as a feeding site with birds roosting near the Marine Lakes within Crosby Coastal Park or on the Seaforth site. Bar-tailed Godwits were recorded sporadically at this site.

The North Wirral Foreshore and New Brighton area (around Egremont Foreshore) are widely recognised as being of conservation importance for many species of wading bird, particularly feeding at low tide on the barnacle beds and groynes. The foreshore area consists of large expanses of exposed sandy beach at low tide and it is in these areas that the highest activity of Eurasian oystercatcher was recorded. This species occurred in locally significant numbers roosting on the breakwaters and surrounding structures at high tide. There is a high transference of birds between Egremont Foreshore and Crosby Coastal Park. This Egremont Foreshore area is well known as a regular wintering site for purple sandpipers. These birds used the rocky areas, groynes and shore defences for both feeding and roosting and were closely associated with larger flocks (several thousands) of Ruddy Turnstone which also congregate on the Crosby Coastal Park Marine Lake area as a high tide roost; as well as feeding on the tide line. Eurasian Oystercatchers were also noted using the high tide roost on the Crosby Coastal Park Marine Lake as this area was relatively undisturbed.

It is therefore possible that any changes in water quality and resultant effects on crustaceans, worms or other food source, has the potential to affect these qualifying bird species within the

⁸⁴ RSK (2010) Mersey Feasibility Study Winter Bird Report

Egremont Foreshore and Seaforth Nature Reserve areas. It should be noted, however that any deterioration in water quality arising from Sefton Local Plan will be *in combination* with other Local Plans in Merseyside (i.e. Liverpool, the Halton and Wirral) as well as the Warrington Core Strategy in Cheshire.

Policies that could result in these changes have been identified with respect to the Ribble and Alt Estuaries SPA/Ramsar (Chapter 7). Due to hydraulic connections these policies are applicable to the Mersey Narrows and North Wirral Foreshore SPA/Ramsar.

8.9.2 Existing Mitigation and Recommended Changes to Local Plan

Policy text and recommended additions to avoid a reduction in water quality through either waste water discharge or port development have been described for the Ribble and Alt Estuaries SPA/Ramsar. Recommendations were made to Policy EQ8 (Managing Flood Risk and Surface Water), EQ4 (Pollution and Hazard), NH4 (The Sefton Coast and Development) and within the pre-amble of Policy IN1 (Infrastructure and Developer Contributions). These recommendations are also applicable to the Mersey Narrows and North Wirral Foreshore SPA/Ramsar.

With the inclusion of these additional measures it is concluded that there will be no likely significant effect on the Mersey Narrows & North Wirral Foreshore SPA/Ramsar through water quality issues as a result of any of the policies proposed within the Local Plan.

8.10 Air quality

8.10.1 Appropriate Assessment

The expansion of the Ports at Seaforth Nature Reserve is likely to increase sulphur dioxide emissions in the vicinity of the SPA/Ramsar site. In addition, development of the road infrastructure to increase adjacent road capacity may result in an increase in nitrogen deposition. Policies that may result in an increase in atmospheric sulphur and nitrogen deposition are:

- ED1: Port and Maritime Zone;
- ED5: Tourism;
- IN2: Transport;
- NH4: Sefton Coast and Development (due to increase in shipping and 'Port related uses');
- EQ3: Accessibility (due to support of sea and canal freight).

Reference to APIS⁸⁵ indicates that the actual SO₂ concentration in the site is well below the critical level (according to APIS the concentration⁸⁶ is 1.0 µgm⁻³ compared to a critical level for damage of 20 µgm⁻³). Moreover, a review of the sensitivities (as described on APIS) of the species for which the SPA/Ramsar has been classified indicates that they are not considered likely to be affected by sulphur deposition.

Similarly, the current level of nitrogen deposition for the same point is 9.2 kgN/ha/yr compared to a minimum critical load (for sublittoral sediment) of 20 kgN/ha/yr. It should also be noted that APIS concludes the effects may be positive for most birds because nitrogen enrichment potentially means more prey species. The only SPA/Ramsar species for which nitrogen deposition is identified on APIS as being potentially negative are black-tailed godwit *Limosa*

⁸⁵ Air Pollution Information System <http://www.apis.ac.uk/>, accessed 10/09/11

⁸⁶ For grid reference SJ246918

limosa and curlew *Numenius arquata* (if nitrogen deposition increases the sward height of their grassland foraging grounds); however, sward height is much more strongly influenced by other factors than atmospheric nitrogen deposition such as cut height & frequency and conventional fertilisation.

8.10.2 Existing Mitigation and Recommended Changes to Local Plan

Based on this information it is concluded that the Sefton Local Plan is unlikely to result in significant effects on the Mersey Narrows & North Wirral Foreshore SPA/Ramsar due to deterioration in air quality. Therefore, no mitigation is required.

Existing policies provide a basis for avoidance and/or mitigation of adverse effects on the Mersey Narrows and North Wirral Foreshore SPA/Ramsar site, arising through reduced air quality, alongside recommended amendments to the Local Plan have been described in Chapter 6 in relation to the Sefton Coast SAC.

8.11 Conclusion and summary of recommendations: Mersey Narrows and North Wirral Foreshore SPA/Ramsar

The HRA has concluded that, along with the recommended changes to the policy wording the Sefton Local Plan includes an adequate policy framework to enable the delivery of measures to ensure that the Mersey Narrows & North Wirral Foreshore SPA/Ramsar site is protected.

Recommendations are as follows:

1. Recommended changes to (**Policy NH8 Minerals**) have been given with respect to Sefton Coast SAC in Chapter 6.10 and are applicable to Mersey Narrows and North Wirral Foreshore SPA/Ramsar.
2. It is considered that references in Policy NH2 are sufficient to ensure that the SPA/Ramsar site is protected. Recommendations for additional text for inclusion in **Policy NH2** to strengthen its ability to safeguard European Sites have been given in Chapter 6 in relation to the Sefton Coast SAC.
3. Policies that could result in changes to water quality have been identified with respect to the Ribble and Alt Estuaries SPA/Ramsar (Chapter 7). Due to hydraulic connections these policies are applicable to the Mersey Narrows and North Wirral Foreshore SPA/Ramsar.
4. Existing policies provide a basis for avoidance and/or mitigation of adverse effects on the Mersey Narrows and North Wirral Foreshore SPA/Ramsar site, arising through reduced air quality, alongside recommended amendments to the Local Plan have been described in Chapter 6 in relation to the Sefton Coast SAC. Recommendations are made to incorporate detail into the pre-amble of Policy ED1 (The Port and Maritime Zone) (paragraph 7.16 of the plan) to clarify the high standard required to facilitate any development within Seaforth Nature Reserve.

9. LIVERPOOL BAY SPECIAL PROTECTION AREA (SPA)

9.1 Introduction

The Liverpool Bay SPA is an approximately 198,000ha maritime 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 site is relatively shallow water up to 20m deep.

9.2 Reasons for Designation

Liverpool Bay SPA was designated in July 2010. Liverpool Bay qualifying for SPA status under the following criteria⁸⁷:

- Liverpool Bay regularly supports 5.4% of GB's total estimated overwintering population red-throated diver (*Gavia stellata*).
- Liverpool Bay regularly supports more than 3.4% of UK population of common scoter (*Melanitta nigra*).
- The site also supports a mean peak average of over 55,500 waterfowl (data taken between 2001/02 – 2005/06) including both of the above bird species.

9.3 Historic Trends and Current Pressures

With the proposed site encompassing approximately 198,000 hectares and a range of estuarine and maritime habitat, the 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.

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 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. 2007). However disturbance of sediments releasing legacy heavy metal pollution (lead, cadmium, arsenic and other poisons) that is bound into the sediment is an existing vulnerability.

In addition to historic pollution, current 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'*;

The site is subject to commercial fishing. The sandbanks of Liverpool Bay support the nursery and feeding grounds for many fish species. The distribution and concentrations of red-throated divers will at least partly be determined by the presence, abundance, and availability of their prey species. The site holds various fish of commercial importance, and extraction of the red-throated diver's main fish prey, as either target and/or by catch species, or through recreational fishing could impact the population. Entanglement in static fishing nets is an important cause of death for red-throated divers in the UK waters however the extent of this impact in Liverpool Bay is not known. Commercial and recreational fishing could directly affect both the food source and feeding grounds used by common scoters and in addition a number

⁸⁷ <http://jncc.defra.gov.uk/pdf/SPA/UK9020294.pdf>

of ports undertake navigational dredging and disposal both in, and adjacent to, the site. Dredging for bivalves has been shown to have significant negative effects on their benthic habitat.

Red throated divers and common scoters are sensitive to non physical, (noise and visual) disturbance by both commercial and recreational activities, for example disturbance by moving vessels - the larger the vessel, the greater disturbance distance expected.

Aggregate extraction presents some risks of disturbance and also changes to sediment structures which may, in particular, impact on common scoter through changes to their benthic feeding grounds. However, aggregate extraction tends to be temporary and localised and so is not anticipated that moderate and targeted extraction will present a significant risk to either of the qualifying species.

There are a number of areas along the coast where marine tourism and leisure activities are common, with existing marinas and partially completed and proposed marina developments. As a result of these leisure users of the area, in combination with the whole suite of commercial activities, including those outlined above, the site is a very active boating and shipping site. However, most vessel activity is restricted to well-established areas which the birds already tend to avoid.

9.4 Key potential pressures from Sefton

From the environmental requirements that have been identified above it can be determined that development in Sefton could theoretically interfere with the environmental requirements and processes on the SPA in the following manner, in combination with other plans and policies as follows:

- water quality arising from construction of Port developments, increases in commercial shipping, increases in houses resulting in increased pressure on existing sewage treatment works , untreated runoff containing inorganic and organic compounds;
- 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 or through aggregate extraction;
- recreational disturbance with regard to the inshore parts of the site;
- increased shipping and disturbance from the port expansion.

9.5 Role of other plans and projects

Other plans and policies listed for Sefton Coast SAC, and Ribble and Alt Estuaries SPA/Ramsar are applicable to Liverpool Bay SPA. This is due to overlap of pathways and geographical proximity of the designated sites. In addition, due to the extensive size of Liverpool Bay SPA the following are applicable:

9.5.1 *Projects*

- Offshore wind farms: With respect to offshore windfarm projects. The Environmental Statement for the Gwynt y Môr array (November 2005) conclude 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 and possible impacts on waterfowl flight paths within Liverpool Bay;

- Liverpool John Lennon Airport expansion – potential impacts due to increased sulphur and nitrogen deposition from aircraft, loss of supporting foraging/high-tide roost habitat and possible disturbance of waterfowl from noise; and
- Proposed incinerators at Runcorn and Ince Marshes – possible air quality impacts through nitrogen and sulphur deposition
- Burbo Bank and Extension – Burbo Bank offshore windfarm comprises 25 turbines and is situated on the Burbo Flats in Liverpool Bay at the entrance to the River Mersey, approximately 6.4km (4.0 miles). The proposed Burbo Bank Extension offshore wind farm development consists of an area of 40 km² 8.5 km from Crosby beach. Significant work has been done to identify the potential impact of these projects on qualifying bird species. This is discussed in Chapter 3.7.1
- Potential nuclear power development at Wylfa in Anglesey as set out in National Policy Statement for Nuclear Power Generation EN6. The Appraisal of Sustainability site report⁸⁸ has identified that significant strategic effects on Liverpool Bay SPA cannot be ruled out as a result of the high-level HRA undertaken for the NPS through some or all of through potential impacts on water resources and quality, habitat (and species) loss and fragmentation/ coastal squeeze, disturbance (noise, light and visual), and air quality

9.5.2 Plans

- Local Plans for Flintshire, Denbighshire, Halton, Conwy, Wrexham, Cheshire West and Chester, Knowsley, Liverpool, Wirral and St Helens, the Mersey Heartlands Growth Point Programme of Delivery (Wirral and Liverpool) and Liverpool and Wirral Waters Development masterplans – possible water quality, air quality and wildfowl disturbance impacts as a result of delivery of new houses and associated commercial development over the next 20 years; and

9.6 Appropriate Assessment

The following section is the Appropriate Assessment. This is divided into pathways identified during Test of Likely Significant Effects with a subsection ‘Appropriate Assessment’ and a subsection ‘Existing Mitigation and Recommended Changes to the Local Plan’.

9.7 Recreational Disturbance

9.7.1 Appropriate Assessment

Recreational disturbance arising from fishing, boating, visual impacts and noise are highlighted as pressures on the qualifying features of Liverpool Bay SPA⁸⁹. Both qualifying bird species are highly sensitive to noise and visual disturbance and can be disturbed by boat movements, wind turbine rotors and general activity. Disturbance can cause birds to cease feeding or fly away and in response they could a) increase their energy requirements at their present (disturbed) feeding sites, or b) move to an alternative less favoured feeding or roosting site. Such a response affects energy budgets and food intake rates, and possibly survival. Sensitivity to disturbance is therefore considered high. Exposure to the boat activity (including passenger, recreational, maintenance, and fishing vessels) and for red-throated divers and common scoter in Liverpool Bay is considered to be moderate.

⁸⁸ Appraisal of Sustainability: site report for Wylfa, October 2010

⁸⁹ Natural England and Countryside Council for Wales (October 2012) Liverpool Bay / Bae Lerpwl Advice under Regulation 35(3) of The Conservation of Habitats and Species Regulations 2010 (as amended) Version 6.5

Sefton Coast SAC and Ribble and Alt Estuaries SPA/Ramsar are all subject to recreational pressure, and due to their close proximity to Liverpool Bay SPA, these same pressures are likely to be relevant to Liverpool Bay SPA. Red-throated diver winter inshore in water 0-20m deep and as such is likely to be particularly exposed to the impacts of water-borne recreation which largely takes place close to the shore.

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 site which abuts and is integrally linked with the Sefton Coast. As such, water-borne recreation around the coast will potentially affect not only the interest features of the Sefton Coast SAC/Ribble and Alt Estuaries SPA/Ramsar site but also Liverpool Bay SPA.

Policies listed for Sefton Coast SAC (Chapter 6) and Ribble and Alt Estuaries SPA/Ramsar site (Chapter 7) have the potential to cause existing recreational pressures to rise are also applicable to Liverpool Bay SPA.

9.7.2 *Existing Mitigation and Recommended Changes to Local Plan*

Recommendations for changes in Local Plan policies to enhance this protection, and mitigate adverse impacts as set out in Chapter 6 for the Sefton Coast SAC and in Chapter 7 for the Ribble and Alt Estuaries SPA/Ramsar are applicable to this designated site. With regard to the use of watercraft, on some sites this can be achieved through zoning of activities by site managers or the introduction of permitting systems limiting the amount of watercraft using the available space, although it is uncertain at this stage whether that would be feasible in the Liverpool Bay SPA/Ramsar. As much of the European site is located outside of Sefton Borough Council's boundary, this intervention will need to be addressed at a strategic level with other relevant Merseyside Councils.

9.8 Disturbance due to Port Expansion

9.8.1 *Appropriate Assessment*

As described above with respect to recreational disturbance, both qualifying bird species are highly sensitive to noise and visual disturbance and can be disturbed by boat movements. Proposals to expand the Port at Seaforth, and associated rise in boat movements could increase this vulnerability and pressure.

9.8.2 *Existing Mitigation and Recommended Changes to Local Plan*

Recommended changes to Policy ED1 (The Port and Maritime Zone) have been explained with respect to habitat loss of the Ribble and Alt Estuaries SPA/ Ramsar site in Chapter 7. These changes are applicable to Liverpool Bay SPA.

9.9 Water Quality Deterioration

9.9.1 *Appropriate Assessment*

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

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

The Natural England Draft Conservation Objectives and Advice on Operation⁹⁰ provide more detail on the risk that the pollutants pose to the qualifying features of interest at the Liverpool Bay SPA.

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

The policies that have been identified that may result in a reduction in water quality at Sefton Coast SAC in Chapter 6 and Ribble and Alt Estuaries SPA/Ramsar in Chapter 7 through increased pressure on the STWs are also applicable to Liverpool Bay SPA due to the hydraulic connections.

With respect to effects arising through port expansion/dredging and shipwash, PCBs (polychlorinated biphenyl) 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 scoter 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 PCBs 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.

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.

Development of ports and docks has the potential to disturb substrates/ circulate synthetic chemical pollutants and heavy metals all of which could result in potential harm to benthic communities, aquatic invertebrates and habitats required by qualifying bird species. Furthermore greater shipping freight has the potential for pollution through fuel emissions/ accidental spillage (described above in relation to waste water discharge/run-off above).

It is therefore considered likely that a reduction in water quality arising from emerging Local Plan policies could affect the integrity of the European Sites.

9.10 Increased Shipping

9.10.1 Appropriate Assessment

An increase in shipping as a result of the port expansion plans of Policy ED1 (The Port and Maritime Zone) has potential to impact upon the SPA bird features. No data is available for the distribution of these bird species and the areas used by the SPA features in comparison to the

⁹⁰Natural England and Countryside Council for Wales (October 2012) Liverpool Bay / Bae Lerpwl Advice under Regulation 35(3) of The Conservation of Habitats and Species Regulations 2010 (as amended) Version 6.5

locations of shipping lanes. It is assumed that at present, these bird species avoid current shipping lanes due to the present levels of disturbance. Provided the increased shipping as a result of the local plan and Policy ED1 use existing shipping lanes, it is considered that the increase in shipping within the Liverpool Bay SPA will not have a likely significant effect upon the bird features of the SPA.

9.11 Disturbance

9.11.1 *Appropriate Assessment*

Liverpool Bay SPA is located within 30m of the proposed expansion area of the Seaforth Port at Seaforth Nature Reserve. As such, there is potential for physical disturbance from an increase in port activities in close proximity to the SPA. Disturbances include, noise and vibration disturbances from increases in shipping and shore-based port operations. This has potential to not only disturb individual birds, but also their prey species such as fish and molluscs. Visual disturbance from port activities also has potential to displace bird species for which the SPA is designated. **Whilst Policy ED1 (The Port and Maritime Zone) provides some protection for adjoining habitats, Point 1.c provides some protection for the landward side of the proposed development against noise, vibration and visual disturbances with the use of landscaping and/ or screening to mitigate against the impacts of these disturbances. This should also be applied to the seaward side of the surrounding European designated sites.**

9.11.2 *Existing Mitigation and Recommended Changes to Local Plan*

Recommendations for changes in policy wording to avoid a significant reduction in water quality have been set out in Chapter 7 for Ribble and Alt Estuaries SPA/Ramsar. Recommendations were made to Policy EQ8 (Managing Flood Risk and Surface Water), EQ4 (Pollution and Hazard), NH4 (The Sefton Coast and Development) and within the pre-amble of Policy IN1 (Infrastructure and Developer Contributions). These recommendations are also applicable to protecting Liverpool Bay SPA due to overlap in pathways and geographical proximity of the European Sites.

Policy ED1 (The Port and Maritime Zone) provides some protection for adjoining terrestrial habitats, against noise, vibration and visual disturbances with the use of landscaping and/ or screening to mitigate against the impacts of these disturbances. This should also be extended to the seaward side of the surrounding European designated sites, with the inclusions of a suitable buffer should be incorporated to ensure the effectiveness of the mitigation.. With the above recommended changes in policy wording and those in Chapter 7 it is concluded that there will be no likely significant effect on the Liverpool Bay SPA through water quality issues, or disturbances via noise and vibration or visual disturbance as a result of any of the policies proposed within the Sefton Local Plan.

Following consultation with Natural Resources Wales, recommendations were made for an explicit commitment to monitoring the effects of Policy ED1 (The Port and Maritime Zone) upon European designated sites. This text has been included within the Policy pre-amble (paragraph 7.16). Where mitigation/compensation measures associated with the proposed Port expansion are found as a result of monitoring to have adverse effects on the integrity of Liverpool Bay SPA, remedial action will need to be taken for the project to remain compliant with European directives.

9.12 Damage to supporting habitat

9.12.1 *Appropriate Assessment*

Expansion of the Port at Seaforth has the potential to result in 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. This could also occur through marine aggregate extraction. The following policies have been identified through HRA Test of Likely Significant Effects to provide these potential pathways.

- ED1 Port and Maritime Zone;
- IN2 Transport; and
- NH8 Minerals.

The Draft Conservation Objectives and Advice on Operations for Liverpool Bay SPA⁹¹ explores this pathway in greater detail with respect to each of the qualifying bird species.

Red-throated diver are known to be associated with sandbank features, and though the link between the birds and benthic habitats is not well understood it probably reflects the association between some of their prey species (small fish such as sprat, herring and sandeel between c. 25 and 55g). Sandbanks may have a functional role (as nursery, spawning, feeding or in providing shelter) in supporting these fish species. Physical damage to any of the habitats on which red-throated diver are associated may therefore affect the feeding overwintering population. Repeated or permanent damage (through changes in suspended sediment or physical disturbance such as anchoring of selective extraction) could adversely affect the ability of the habitats to recover and may ultimately lead to loss of prey species and sandbanks. Sensitivity of the red-throated divers to damage to their habitat is considered to be moderate for siltation, abrasion and for selective extraction. Few ships currently anchor in Liverpool Bay, and marine aggregate extraction activities are typically very small: only 0.39 km² of seabed in Liverpool Bay in 2007 and further offshore than the known areas of red-throated diver concentrations. As such, exposure to all physical habitat damage is currently considered low.

As benthic feeders, common scoter are closely associated with the availability and condition of their shallow sandbank habitat. As such they are considered highly sensitive to its physical loss and smothering. The overall exposure to physical loss of habitat is currently considered low based on the extent of supporting sandbank habitat and the distribution and extent of activities.

In order to maintain favorable conditions for both qualifying bird species the Conservation Objectives for the SPA recommend no decrease in the extent of undisturbed sublittoral, shallow (<20m) sandbank habitat available for red-throated diver feeding is recommended.

Whilst the exposure to habitat loss for both qualifying bird species is currently considered to be low, the vulnerability of the Annex II species within the SPA and associated habitats to physical loss is considered to be moderate for habitat removal and habitat smothering. Furthermore changes in activities resulting in any increase in mineral aggregate extraction or port expansion and associated increase anchoring at Liverpool Bay, and has the potential increase this exposure and therefore vulnerability.

9.12.2 *Existing Mitigation and Recommended Changes to Local Plan*

Recommended changes to policy ED1 Port and Maritime Zone with respect to habitat loss have been set out in Chapter 7 in relation to the Ribble and Alt Estuaries SPA/Ramsar site.

⁹¹ Natural England and Countryside Council for Wales (October 2012) Liverpool Bay / Bae Lerpwl Advice under Regulation 35(3) of The Conservation of Habitats and Species Regulations 2010 (as amended) Version 6.5

These changes are applicable to protecting Liverpool Bay SPA due to overlap in pathways and geographical proximity of the European Sites.

9.13 Conclusion and summary of recommendations: Liverpool Bay SPA

The HRA has concluded that, providing the recommended changes to policy wording are included within the Sefton Local Plan, there would be an adequate policy framework to enable the delivery of measures to adequately protect Liverpool Bay SPA.

Recommendations are as follows:

1. Recommendations for changes in Local Plan policies to enhance this protection, and mitigate adverse impacts as set out in Chapter 6 for the Sefton Coast SAC and in Chapter 7 for the Ribble and Alt Estuaries SPA/Ramsar are applicable to this designated site.
2. Recommended changes to **Policy ED1 (Port and Maritime Zone)** have been explained with respect to habitat loss of Ribble and Alt Estuaries SPA/Ramsar in Chapter 7. These changes are applicable to Liverpool Bay SPA.
3. The policies that have been identified that may result in a reduction in water quality at Sefton Coast SAC in Chapter 6 and Ribble and Alt Estuaries SPA/Ramsar in Chapter 7 through increased pressure on the STWs are also applicable to Liverpool Bay SPA due to the hydraulic connections.
4. Recommendations for changes in policy wording to avoid a significant reduction in water quality have been set out in Chapter 7 for Ribble and Alt Estuaries SPA/Ramsar. These recommendations are also applicable to protecting Liverpool Bay SPA due
5. Policy ED1 (The Port and Maritime Zone) provides some protection for adjoining terrestrial habitats, against noise, vibration and visual disturbances with the use of landscaping and/ or screening to mitigate against the impacts of these disturbances. This should also be extended to the seaward side of the surrounding European designated sites, with the inclusions of a suitable buffer should be incorporated to ensure the effectiveness of the mitigation. It is recommended that Policy ED1 (The Port and Maritime Zone) also includes text that ensures that any development within the Seaforth Nature Reserve should result in no likely significant effect upon the Liverpool Bay SPA and any other European designated sites.

10. MANCHESTER MOSSES SPECIAL AREA OF CONSERVATION (SAC)

10.1 Introduction

Figure 1 shows the location of Manchester Mosses SAC, located over 20km to the east of from Sefton's western boundary.

Manchester Mosses SAC comprises Astley and Bedford Mosses, Holcroft Moss and Risley Moss, totalling approximately 173ha. The site is significant for mossland that *'formerly covered a very large part of low-lying Greater Manchester, Merseyside and southern Lancashire, and provided a severe obstacle to industrial and agricultural expansion'*⁹². These sites are examples that have survived as degraded raised bog on the Mersey floodplain, with their surfaces elevated above surrounding land due to shrinkage of the surrounding tilled land, and *'all except Holcroft Moss have been cut for peat at some time in the past'*.

10.2 Reasons for Designation

Manchester Mosses SAC is designated for its Habitats Regulations Annex I habitat of *'degraded raised bogs still capable of natural regeneration'* (EC, 1992).

10.3 Historic Trends and Current Pressures

As discussed above, the Manchester Mosses SAC is a direct result of historical loss of mossland (i.e. bog) habitat due to drainage for agriculture and built development. Mossland is reported to have been a significant obstacle to industrialisation of the area around Manchester, and its drainage and landfilling was intensified during the 19th and 20th centuries. However, recent rehabilitation management over the past 15-20 years has increased peat-producing *Sphagnum* species.

Laxen and Wilson (2002) suggests that NO₂ emissions from motorways essentially reach background levels within 200m of the roadside. Air pollution at many European sites is already believed to be having an adverse effect. Tables 6 and 7 show the degree to which Manchester Mosses SAC is affected by atmospheric nitrogen deposition (data downloaded from APIS on 05/09/13).

Nevertheless, it is clear from Table 6 that nitrogen deposition is already a problem within Manchester Mosses SAC and it is not unreasonable to attribute this to the proximity of Holcroft Moss to the M62. Indeed, Environment Agency modelling data used for the Manchester Mosses SAC Review of Consents suggest that 40% of the nitrogen deposited on this site arises from road transport. In contrast, the site is not suffering from sulphur dioxide deposition, presumably because road traffic contributes very little to atmospheric concentrations of sulphur dioxide.

⁹² JNCC website, accessed 16/09/13 <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0030200>

Table 6: Atmospheric nitrogen deposition compared with critical load at Holcroft Moss*

Site	Grid reference	Habitat	Minimum critical Load / Kg N/ha/year	Nitrogen Deposition/ Kg N/ha/year	Exceedance	Is atmospheric nitrogen deposition currently a problem?
Manchester Mosses SAC (Holcroft Moss)	SJ683928	Raised and blanket bogs	5	21.56	Current deposition two to four times the minimum critical load.	Yes

Source: Based on information provided by the UK Air Pollution Information System (www.apis.ac.uk). Data downloaded from APIS on 28/04/10

* the closest part of Manchester Mosses SAC to the M62

Table 7: Atmospheric sulphur dioxide concentrations compared with critical load at Holcroft Moss

Site	Grid reference	Habitat	Critical Level / µg/m ³	SO ₂ Concentration / µg/m ³	Exceedance	Is sulphur dioxide currently a problem?
Manchester Mosses SAC (Holcroft Moss)	SJ683928	Raised and blanket bogs	20	0.8	-19.17 µg/m ³	No

Source: Based on information provided by the UK Air Pollution Information System (www.apis.ac.uk). Data downloaded from APIS on 05/09/13

The environmental pressures upon the mossland habitat for which this site is designated are:

- atmospheric nitrogen deposition from road traffic;
- increased agricultural drainage in the surrounding land, which causes the habitat to dry out and begin succession towards scrubland and woodland (including drainage of peat that gradually increases a downward gradient away from the mosslands);
- changes to the maintenance regime of nearby agricultural drainage, which can cause either drying out through unsympathetic dredging, or waterlogging through complete lack of dredging;
- increased water abstraction for irrigation, which can contribute towards the drying out of mossland habitat through reduced flows and/or a lowered water table;
- afforestation as a result of natural succession;
- fly-tipping;
- loss of neighbouring mossland habitat as a result of agricultural drainage or drainage and landfill for development;
- loss of neighbouring peat and mossland habitat as a result of peat harvesting, both legally and illegally;
- damage to mossland habitat due to increased recreational pressure (e.g. paintball); and
- loss of *Sphagnum* species as a result of drying out and increased air pollution.

10.4 Key potential pressures from Sefton

From the environmental requirements that have been identified above it can be determined that development in Sefton could theoretically interfere with the environmental requirements and processes on the SAC in the following manner:

- Cumulative 'in combination' deterioration in local air quality (when considered alongside other authorities alongside the M62 that will be delivering new housing over the same period) and thus increased nitrogen deposition since the M62 is one of the major routes from eastern Merseyside (north of the river) and Greater Manchester.

10.5 Appropriate Assessment

The following section is the Appropriate Assessment. This is divided into pathways identified during Test of Likely Significant Effects with a subsection 'Appropriate Assessment' and a subsection 'Existing Mitigation and Recommended Changes to the Local Plan'.

10.6 Reduction in Air Quality

10.6.1 *Appropriate Assessment*

The following policies have the potential to result in an increase in vehicle movements in the Merseyside Region.

- ED1 (Port and Maritime Zone), Improved access and enhanced road capacity around the Port at Seaforth;
- IN2 Transport Thornton to Switch Island Improvements, and increased use 'Freight Priority Routes; and
- Policies relating to housing provision (as discussed in Chapter 6 for the Sefton Coast SAC) which will support a net rise in the population of Sefton to 2030.

Given the key role of the M62 as one of the major entry/exit routes to Merseyside from the Midlands and the North, it is reasonable to assume that a significant cumulative 'in combination' air quality effect as a result of the cumulative increase in vehicle emissions is not unlikely.

10.6.2 *Existing Mitigation and Recommended Changes to Local Plan*

There are several policies which would serve to protect the SAC either directly (for example NH2 Nature Conservation and Enhancement and Geology) or through promoting and delivering Sustainable Transport, for example:

- EQ9: Provision of public open space, strategic paths and trees in development; explicit reference to protecting, enhancing and conserving Sefton's network of paths and cycleways.
- IN2 Transport: There is a strong focus on improving public transport, park and ride facilities and improving walking and cycling routes. Identification that Transport Assessments are required for all major developments and those likely to significantly affect road capacity;
- EQ3 Accessibility: a strong focus on improving public transport, walking and cycling facilities;
- Policies MN2.5 and MN2.46 Strategic Sites Crowland Street Southport and Land east of Maghull. Improvements to the area's connectivity with the wider highways network, including provision for walking, cycling and public transport.

Based on this information it is concluded that the Sefton Local Plan already provide a system of measures to minimise the contribution to any increase in nitrogen deposition within Manchester Mosses SAC. No further recommendations are made.

10.7 Conclusion

The provision of these policies demonstrates that the Local Plan does already includes proportionate measures to minimise its contribution to vehicle movements on the M62 and therefore contains an adequate policy framework to enable Sefton to reduce its atmospheric nitrogen deposition on Manchester Mosses SAC from Local Plan development to a level that is effectively inconsequential.

11. SUMMARY AND CONCLUSION

This HRA has identified aspects of the emerging Local Plan that have the potential to result in significant adverse effects on European Sites. Recommendations have been made to change policy wording in order to mitigate these effects, in order for the Sefton Local Plan to be compliant with the Habitats Regulations.

11.1 Site Allocations

The Test of Likely Significant Effects Table for Site Allocations is given in Appendix 1. Sites which have been 'screened in' will need to be covered by a site-specific HRA accompanying the planning application and text included in the Local Plan setting out the requirement to provide appropriate protection to the integrity of the SPA/Ramsar site bird population. This text is included in the explanation to policy NH2 'Protection and Enhancement of Nature Sites, Priority Habitats and Species. Sites within sensitive areas for SPA/Ramsar birds will require a non-breeding bird survey during autumn, winter and spring to support any planning application and the provision of replacement habitat if the site is established to regularly support over 1% of the SPA/Ramsar population of that species.

The site should be surveyed by an experienced ornithologist twice per month from September to March. The two visits each month should be carried at different tidal states (as these are known to influence geese movement) and/or at different times of day, if time of day is considered likely to be relevant. More than one survey season may be required if the data from any portion of the survey period is not considered representative (e.g. because the level of disturbance being experienced at time of survey is atypical), if bird numbers fluctuate greatly from visit to visit which would indicate that a larger dataset is required to determine typical levels of usage or if the species is known to vary considerably year-on-year in their level of use of high tide roost sites. At each visit the date, time of day, species present and number of birds of each species should be recorded. Additional information which would be useful includes weather conditions, any records of disturbing activities and whether these are typical of the site, and details of feeding or roosting behaviour. Depending on the site, vantage point observations may also be of value to identify directions of flock flight to and from the parcel being surveyed.

Analysis of the data would need to determine the total number of waterfowl and the total number of each species of waterfowl in order to determine whether on any survey visit numbers exceeded 1% of the SPA population. Data analysis should also consider how often the 1% threshold is exceeded. If the threshold is only exceeded on a single occasion then it may not be appropriate to conclude that the site is important for the SPA. It is considered by the authors of this document that if however numbers exceeding 1% of the SPA population are recorded on multiple (for example, 3 or more) visits in a single season than regular use of that field by significant numbers of waterfowl can be reasonably assumed.

11.2 Detailed Policies

Of the 54 detailed policies put forward by the local plan, the following 19 are screened in (therefore requiring further consideration in the Local Plan) due to potential pathways being identified to European Sites. These are as follows:

Meeting Sefton's needs:

- MN1 Housing and employment requirement
- MN2 Housing, employment and mixed use allocations
- MN3 Land east of Maghull
- MN5: Strategic allocation: Land south of Formby Industrial Estate

- MN6 Sefton's Green Belt
- MN7 Safeguarded Land

Economic development and regeneration:

- ED1 The Port and Maritime Zone
- ED2: Development in Town Centres, District Centres, Local Centres and Local Shopping Parades (and other locations)
- ED4: Mixed Use Areas
- ED5: Tourism
- ED6: Regeneration Areas

Housing and communities:

- HC5: Planning for Gypsies and Travellers
- HC7: Education and care institution sites in the urban area

Infrastructure

- IN2: Transport

A quality, healthy environment for Sefton

- EQ1: Strategic Policy Planning for a healthy Sefton
- EQ3: Accessibility
- EQ8: Managing flood risk and surface water

Natural and heritage assets

- NH6: Urban golf courses

The Local Plan as it stands already contains text which largely serves as a basis to protect the integrity of European Sites.

Further recommended changes have been made to policy wording throughout the Local Plan to enhance this protection. This includes strengthening text within Policy EN2, signposting of Policy EN2 (and other protective policies) within those policies screened in policies, as well as other additions/changes to wording.

The LPA is committed to preparing a Supplementary Planning Document to provide more detail on the issue of ensuring the provision of functionally linked compensatory habitat for the loss of supporting habitat for pink-footed geese and other bird features of the SPA and Ramsar sites. This includes a strategic approach to providing alternative feeding habitat for pink footed geese populations associated with the Ribble & Alt Estuaries SPA. The LPA will work with Natural England on the scope and preparation of the SPD.

11.3 Conclusion

With the inclusion of these recommended changes, this HRA/AA has concluded that the Sefton Local Plan would contain an adequate policy framework to enable the required amount of development to occur within Sefton whilst adequately protecting European Sites. This would allow the Sefton Local Plan to be compliant with the Habitats Regulations.

APPENDIX 1: TEST OF LIKELY SIGNIFICANT EFFECTS (TOLSE) TABLE FOR ALLOCATION SITES

The below table below sets out the HRA Test of Likely Significant Effects (TOLSE) of the sites for allocations with respect to the following pathways:

- Disturbance and recreational pressure;
 - Breeding birds
 - Non-breeding birds
 - Other activities causing disturbance
- Mechanical/ abrasive damage and nutrient enrichment;
- Atmospheric pollution;
- Water resources;
- Water quality;
- Port development, shipping and dredging;
- Coastal squeeze; and,
- Loss of supporting habitat.

Air quality is not a site-specific pathway (it is development cumulatively across Sefton that would need to be considered) and therefore it will be covered in the full Appropriate Assessment of the Preferred Options Local Plan rather than in this document.

If a site is screened in (orange), it requires further consideration if taken forward for development as part of the Local Plan.

If a site is screened out (green), it does not require further consideration if taken forward for development.

Sites with planning permission have not been included in this table on the assumption that any HRA issues will have been considered at the time permission was granted.

The following text refers to the phrase 'significant area of supporting habitat'. Definitions of 'significant' with regard to supporting habitat for SPA/Ramsar birds are not formally defined in guidance, but usual practice would be to regard any land parcel that regularly supported at least 1% of the SPA/Ramsar site population as 'significant'.

Site Allocations Test of Likely Significant Effects (TOLSE)

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
Employment						
MN2.46 Land East of Maghull	Mixed use including Employment use (20ha)	Located 9km from SAC/SPA/Ramsar Unlikely, as this is an employment site and will not generate significant recreational activity	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose, although the Lancashire Bird Atlas indicates that the main concentrations of the species in Sefton are further north-west. Aerial photographs indicate current land use is agriculture which is likely to be suitable habitat. Development in this area would require non-breeding season bird surveys to further inform impact assessment and mitigation.	Screened in.
MN2.47 Senate Business Park, Atlantic business Park and Former Peerless Refinery Site.	Employment (xxxha)	Located 3.7km from SPA/Ramsar at its closest Unlikely, as this is an employment site and will not generate significant recreational activity	Habitat is largely existing business park, hardstanding and amenity grassland surrounded by urban development. Not considered suitable habitat.	No – too far from the coast for this to be a realistic impact pathway	Site is not considered suitable habitat.	Screened out.
MN2.48	Employment use (XXXha)	Located 2.5-3km from SAC/SPA/ Ramsar	Consultation with MEAS ⁹⁵ identified that survey work	No – too far from the coast	Located within an area of sensitivity for pink-footed goose.	Screened out.

⁹³ Coastal management plans have been referenced from <http://mycoastline.org/documents/smp2/11a9PS.pdf>

⁹⁴ Reference has been made to ongoing work being undertaken by MEAS

⁹⁵ Email dated 14th May Christine Bennett (MEAS) to James Riley (URS)

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
Land north of Formby Industrial Estate		Unlikely, as this is an employment site and will not generate significant recreational activity	has confirmed the habitats present in this site are not suitable for bird species for which SPA and Ramsar are designated	for this to be a realistic impact pathway	MEAS ⁹⁶ has confirmed that survey work has been conducted which concluded that the habitats present in this site are not suitable for these species.	
MN2.49 Land south of Formby Industrial Estate	Employment use	Located approx. 2.4km from SAC. Not a housing site so will not contribute to recreational pressure	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat	Landwards of railway and A565 so no	Located within an area of sensitivity for pink-footed goose and where records of the species exist according to the Lancashire Bird Atlas. Aerial photograph indicates current land use is grassland and arable. Non-breeding season bird surveys would be required to confirm their presence.	Screened in.
MN2.50 Southport Business Park	Employment use (13.2ha)	Located 2.5km from the SAC, 2.7km from the SPA and Ramsar site. Not a housing site so will not contribute to recreational pressure	Habitat appears to be grazed grassland subject to disturbance from livestock. No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and whooper swan. The Lancashire Bird Atlas identifies that the parcel lies adjacent to a high density of records of wintering whooper swan which is particularly concentrated on farmland to the east of urban Sefton. A concentration of pink-footed goose records is also identified in this area. However, aerial photographs indicate site	Screened out

⁹⁶ Email dated 14th May Christine Bennett (MEAS) to James Riley (URS)

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
					is unsuitable for supporting habitat as it is currently grazed grassland subject to disturbance from livestock.	
MN2.51 Switch Car Site, Wakefield Road, Netherton	Employment (4.7ha)	Located 4km from SPA/ Ramsar Unlikely, as this is an employment site and will not generate significant recreational activity	Habitat is previously developed ground surrounded by urban development. Not considered suitable habitat.	No – too far from the coast for this to be a realistic impact pathway	Site is not considered suitable habitat.	Screened out.
MN2.53 Former Lanstar Site, Hawthorne Road, Bootle	Employment (1.0ha)	Located 1km from SPA/ Ramsar Unlikely, as this is an employment site and will not generate significant recreational activity	Habitat is previously developed ground surrounded by urban development. Not considered suitable habitat.	No – too far from the coast for this to be a realistic impact pathway	Site is not considered suitable habitat.	Screened out.
MN2.52 Land at Farrier's Way, Netherton	Employment (0.5ha)	Located 3.7km from SPA/ Ramsar Unlikely, as this is an employment site and will not generate significant recreational activity	Habitat appears to be tall and rank. Not considered suitable habitat.	No – too far from the coast for this to be a realistic impact pathway	Site is not considered suitable habitat.	Screened out.
MN2.54 Linacre Bridge, Linacre Lane, Bootle	Employment (1.0ha)	Located 4km from SPA/ Ramsar Unlikely, as this is an employment site and will not generate significant recreational activity	Habitat is previously developed ground surrounded by urban development. Not considered suitable habitat.	No – too far from the coast for this to be a realistic impact pathway	Site is not considered suitable habitat.	Screened out.
Housing Site Allocations						

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
Southport						
MN2.1 Barton's Close, Southport	36 dwellings	Located approx. 1.5km from SPA/ Ramsar and 5km from SAC, but residential areas in between so only cumulative impact when all development sites are considered together.	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected	No – too far from the coast for this to be a realistic impact pathway	Aerial photographs indicate site is overgrown and rank. It also constitutes a very small parcel of land entirely surrounded by urban development. It does not fall within sensitivity areas and the Lancashire Bird Atlas does not identify this as an area with specific records of pink-footed goose or whooper swan. Therefore it is concluded that significant effects are not likely	Screened out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.2 Land at Bankfield Lane, Churchtown	220 dwellings	Located approx 1.5km from SPA/ Ramsar and 5km from SAC, but residential areas in between so only cumulative impact when all development sites are considered together (Section 5.7.1).	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected	No – too far from the coast for this to be a realistic impact pathway	Aerial photographs indicate site is largely arable, indicating the habitat is suitable to support SPA bird species. However, it does not fall within sensitivity areas and the Lancashire Bird Atlas does not identify this as an area with specific records of pink-footed goose or whooper swan. Winter bird surveys ⁹⁷ confirmed that this land is not used by SPA bird species. This is likely due to the area being subject to disturbance. Therefore it is concluded that significant effects are not likely	Screened out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.3 Former Phillip's	158 dwellings	Located approx 1.3km from SPA/ Ramsar and 5km from SAC, but residential areas in	None. This site is a former factory site	No – too far from the coast for this to be a	This is a former factory site. As such, it does not contain suitable habitat to support features of the European	Screened out. Due to no realistic pathway

⁹⁷ Conducted between October 2013 and January 2014 by ERAP

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
Factory, Balmoral Drive, Southport		between so only cumulative impact when all development sites are considered together (Section 5.7.1).		realistic impact pathway	designated sites.	being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.4 Land at Moss Lane, Churchtown South	450 dwellings	Located approx. 2.5km from SPA/Ramsar and 4km from SAC, with residential areas in between so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and whooper swan and where the Lancashire Bird Atlas identifies densities of both whooper swan and pink-footed goose .These may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat	Screened in.
MN2.5 Land at Crowland Street	678 dwellings	Located approx. 4km from SPA/Ramsar and SAC with residential areas in between so only cumulative impact when all development sites are considered together	The site is used for turf growing. As such it is not suitable supporting habitat for SPA and Ramsar birds	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and whooper swan. The site is used for turf growing. As such it is not suitable supporting habitat for SPA and Ramsar birds	Screened out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
MN2.6 Land at Broome Road, Southport	215 dwellings	Located 4km from SAC/ Ramsar with residential areas in between so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and whooper swan. The Lancashire Bird Atlas identifies that the parcel lies adjacent to a high density of records of wintering whooper swan which is particularly concentrated on farmland to the east of urban Sefton. A concentration of pink-footed goose records is also identified in this area. However, aerial photographs indicate site is currently rank and overgrown which would make it unsuitable.	Screened out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.7 Land West of Lynton Drive, Hillside	25 dwellings	Adjacent to SAC, though presence of the Royal Birkdale golf course may limit access to some extent	Within 300m of Ramsar site – natterjack toads could be affected. Adjacent to the SAC – great crested newts could be affected. However, it should be noted that the data search produced records of natterjack toads (a primary feature for designation of the Ramsar site) approximately 1km from the site and no records of great crested newts (a primary feature for designation of the SAC	No - an existing railway separates this land parcel from the SAC/Ramsar site.	A Phase 1 Habitat Survey of the site undertaken by the site promoter in June 2013 identified that there is a pond in the golf course to the south-west approximately 400m from the site. However, the data search from Merseyside BioBank did not return records of great crested newts within 1km of the site and great crested newt breeding ponds within the area are known. As such, it is considered that there is a very low risk that great crested newts are using this site. It was also identified that the site primarily consists of rank grassland, scrub and bare ground but that much of the open parts of the site comprise ballast, rubble and crushed brick with evidence of former sand dune habitat, which would have	Screened out Based on current information the site does not have potential to support species for which the SAC and Ramsar site are designated It is noted that the habitat within the site has potential to support populations of great crested newts and / or natterjack toads. However, the data search from Merseyside Biobank returned records of natterjack 1km from the site and no records of great crested newts. In addition, the locations of natterjack toad breeding

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
			site) within 1km of the site. In addition the breeding slacks of natterjack toads and breeding ponds of great crested newts are known within the Ramsar site and SAC. It is considered by MEAS and URS that there is a 'very low risk of either species being present within the proposed site'.		some suitability for natterjack toad. The data search from Merseyside BioBank returned records for natterjack toad approximately 1km from the site. However, natterjack toad breeding slacks are known within the area. As such, it is considered that there is a very low risk that natterjack toad are using this site.	slack and great crested newt breeding ponds are known within the area. As such there are no impact pathways to affect species for which the SAC and Ramsar site are designated.
MN2.8 Former Ainsdale Hope High School, Ainsdale	243 dwellings	Located immediately adjacent to SAC/ Ramsar though presence of the Hillside Golf Course which provides public access to the SAC/ Ramsar sites. There is potential for increased recreational pressure to affect the SAC habitats.	Located immediately adjacent to SAC/ Ramsar so potentially yes. Very low numbers of bird species (such as oystercatcher and gulls) for which SPA and Ramsar are designated have been recorded within the site. These features could be adversely affected/displaced if/when using the site. It is known that the site is subject to considerable human activity Monday to Friday. No non-breeding season bird surveys are required	No. The Coastal Road is located between the shoreline and the proposed site.	Located within an area of sensitivity for pink-footed goose, although the Lancashire Bird Atlas does not indicate any records of SPA birds using this area. The site is known to be subject to considerable human activity and low numbers (in the 10's) of species which form part of the bird species assemblages for which the SPA and Ramsar are designated. No non-breeding season bird surveys are required. The site may serve as supporting habitat for natterjack toads which could be found in habitat within several hundred metres of the Ramsar site boundary.	Screened in.

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
			due to the low number of birds known to use the site. Natterjack toads for which the Ramsar is designated may be present and could be adversely affected.			
MN2.9 Former St John Stone School, Meadow Lane, Ainsdale	40 dwellings	Located 1.2km from the SAC/Ramsar site. Only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ⁹⁸	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and whooper swan. Aerial photographs indicated the site is currently amenity grassland. MEAS confirmed that the disused school site is currently surrounded by 2m high close boarded wooden fencing. As such the site itself is not suitable to support pink-footed goose and / or whooper swan. However, the Lancashire Bird Atlas identifies that the parcel lies adjacent to a high density of records of wintering whooper swan which is particularly concentrated on farmland to the east of urban Sefton. There is potential to impact these populations during the construction phase via noise and vibration disturbance and via visual disturbance. Any applicant will need to include provisions to mitigate these impacts during the construction phase.	Screened in.

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
MN2.10 Meadows ATC, Sandbrook Road, Ainsdale	49 dwellings	Located 1.2km from the SAC/Ramsar site. Only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and whooper swan. Aerial photographs indicated the site is currently amenity grassland. MEAS confirmed that the disused school site is currently surrounded by 2m high close boarded wooden fencing. As such the site itself is not suitable to support pink-footed goose and / or whooper swan. However, the Lancashire Bird Atlas identifies that the parcel lies adjacent to a high density of records of wintering whooper swan which is particularly concentrated on farmland to the east of urban Sefton. There is potential to impact these populations during the construction phase via noise and vibration disturbance and via visual disturbance. Any applicant will need to include provisions to mitigate these impacts during the construction phase.	Screened in.
MN2.11 Land south of Moor Lane, Ainsdale	75dwellings	Located approx. 1km from SAC/SPA/ Ramsar, and relatively small scale. Whilst it may contribute cumulatively to recreational pressure it is unlikely to result in significant recreational pressure on a stand alone basis	It has been confirmed by MEAS that bird species for which SPA and Ramsar are designated are not present within the site.	Landwards of railway and A565 so no	The site is located within an area of sensitivity for pink-footed goose and where records of the species exist according to the Lancashire Bird Atlas. Aerial photograph indicates current land use is horse pasture, which is confirmed by survey on behalf of the proponents conducted in 2013. . This land is located on the fringe of the urban area. It has been confirmed by MEAS that no pink-	Screened out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
					footed goose or other over wintering birds for which the SPA/ Ramsar site is designated use the site. In addition the site is located suitable far enough away from and screened from arable fields that could be used by pink-footed goose and other over -wintering bird populations. There are no likely significant effects upon the European sites.	
Formby						
MN2.12 Land north of Brackenway (Land at Hawksworth Drive), Formby	286 dwellings	Located 500m east of SAC (and 1km south of SPA/Ramsar) so potentially yes, given the scale of development and proximity to the SAC. Victoria Road provides access to the coast over the railway (i.e alone and in-combination)	Located approx. 1km from SPA Ramsar so yes- Bird species for which SPA and Ramsar are designated, and natterjack toads for which the Ramsar is designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat	Landwards of railway so no	Located within an area of sensitivity for pink-footed goose and where records of the species exist according to the Lancashire Bird Atlas. Aerial photograph indicates current land use is arable/ grazing. It is understood that MEAS conducted a site visit and found the area is heavily grazed/poached by horses and not used by geese and swans suggesting the site to be suboptimal. The very closely grazed nature of the site is confirmed in survey reports submitted on behalf of the proponent in 2014.	Screened In
MN2.13	40 dwellings	Located approx. 80 meters from the SAC site, 900 meters from	The site is of a small size and enclosed by trees	Landwards of railway so no	Located within an area of sensitivity for pink-footed goose and where records of	Screened in.

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
Land at West Lane, Formby		the Ramsar site, approximately 2km from the SPA, and approximately 1ha (quantum of dwellings not specified). There is potential for this site to impact upon the SAC habitats as a result of increased recreational pressure (alone and in-combination).	and hedgerows, it is also located within an urban environment. It is not expected that the site supports populations of birds for which the SPA and Ramsar site are designated..		the species exist according to the Lancashire Bird Atlas. Aerial photograph indicates current land use is short grassland, albeit entirely surrounded by built development. The site is of a small size and enclosed by trees and hedgerows, it is also located within an urban environment. It is not expected that the site supports populations of birds for which the SPA and Ramsar site are designated.	
MN2.14 Former Holy Trinity School, Lonsdale Road, Formby	50 dwellings	Located approx. 1.3km from SAC, and relatively small scale. Whilst it may contribute cumulatively to recreational pressure it is unlikely to result in significant recreational pressure on a stand alone basis	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected	Landwards of railway and A565 so no	Not located within an area of sensitivity for pink-footed goose or where records of the species exist according to the Lancashire Bird Atlas. Aerial photograph indicates current land use is short grassland, but it is very small and entirely surrounded by built development. Ultimately it is considered unlikely it will be of value for SPA/Ramsar species.	Screened out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
MN2.15 Formby Professional Development Centre, Park Road, Formby	15 dwellings	Located approx. 1km from SAC, and relatively small scale. Whilst it may contribute cumulatively to recreational pressure it is unlikely to result in significant recreational pressure on a stand alone basis	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected	Landwards of railway and A565 so no.	Not located within an area of sensitivity for pink-footed goose or where records of the species exist according to the Lancashire Bird Atlas. Aerial photograph indicates current land use is short grassland, but it is very small and entirely surrounded by built development. Ultimately it is considered unlikely it will be of value for SPA/Ramsar species.	Screened out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
MN2.16 Land at Liverpool Road, Formby	319 dwellings	Located 2km from SAC and 2.5km from SPA/Ramsar, and no direct access route so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and where records of the species exist according to the Lancashire Bird Atlas. Aerial photographs indicate current land use agriculture, adjacent to River Alt. However the site is not used by geese and swans as site is too confined by roads and built development.	Screened out. Whilst located within an area of sensitivity, habitat is not optimal, therefore significant effects are not likely Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
MN2.17 Land at Altcar Lane, Formby	29 dwellings	Located 1.5km from SAC and 2km from SPA/Ramsar, no obvious direct access route so only cumulative impact when all development sites are considered together	Aerial photographs indicate existing land use is arable crop and grassland.	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and whooper swan and where records of the species exist according to the Lancashire Bird Atlas. The site is located adjacent to the west of the AA565. The land parcel extends up to approximately 850m from this busy road. There is direct access to this land parcel from the European designated sites without birds overflying disturbed areas (busy road and urban landscape). Non-breeding season bird surveys would be required to confirm their presence.	Screened in.
MN2.18 Powerhouse site, Phase 2, Formby	20 dwellings	Located 1km from SAC and 1.5km from SPA/ Ramsar relatively accessible through footpath so only cumulative impact when all development	Aerial photographs indicate existing land use is grassland with occasional scattered scrub. This is considered	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and whooper swan and where records of the species exist according to the Lancashire Bird Atlas. Aerial photographs indicate that habitat	Screened in

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
		sites are considered together.	suitable to support bird species of the SPA.		on site is grassland with occasional scattered scrub making the site suitable to support bird features of the SPA. Although located on the fringe of an urban area, there is direct access to this land parcel from the European designated sites without birds overflying disturbed areas (busy road and urban landscape). Non-breeding season bird surveys would be required to confirm their presence.	
MN2.19 Land at Andrew's Close, Formby	87 dwellings	Located 800m from SAC and 1.5km from SPA/Ramsar relatively accessible through footpath. so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	No – too far from the coast and close to Formby for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and whooper swan and where records of the species exist according to the Lancashire Bird Atlas. Aerial photographs indicated site is currently agricultural land (confirmed by surveys on behalf of the proponent in 2013) so may be suitable for both species. Non-breeding season bird surveys would be required to confirm their presence.	Screened in.
Crosby						
MN2.20 Land at Elmcroft Lane, Hightown	120 dwellings	Located approx. 250m from SAC and 500m from SPA/Ramsar, but the railway forms a barrier to access so only cumulative impact when all	Aerial photographs indicate current land use is predominantly grassland with scattered scrub, so less suitable for	No – too far from the coast for this to be a realistic impact pathway	It is Located in an area of sensitivity for pink-footed goose and where records of the species exist according to the Lancashire Bird Atlas; aerial photographs indicate current land-use is grassland with	Screened out Due to no realistic pathway being identified. Whilst in-combination recreational

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
		development sites are considered together	birds. The railway is likely to limit dispersion of natterjack toads from Ramsar site		some scrub. This land parcel is a small (approximately 0.7ha), adjacent to the urban area and playing fields. Located within this disturbed surrounding, it is unsuitable for birds.	pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects This land parcel is a small (approximately 0.7ha), adjacent to the urban area and playing fields. Located within this disturbed surrounding, it is unsuitable for birds
MN2.21 Land at Sandy Lane, Hightown	13 dwellings	Located approx. 250m from SAC and 500m from SPA/Ramsar, but the railway forms a barrier to access so only cumulative impact when all development sites are considered together	Aerial photographs indicate current land use is grassland with scattered scrub, so less suitable for birds. The railway is likely to limit dispersion of natterjack toads from Ramsar site	No – too far from the coast for this to be a realistic impact pathway	It is Located in an area of sensitivity for pink-footed goose and where records of the species exist according to the Lancashire Bird Atlas; aerial photographs indicate current land-use is grassland with some scrub. This land parcel is a small (approximately 0.7ha), adjacent to the urban area and playing fields. Located within this disturbed surrounding, it is unsuitable for birds.	Screened out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
MN2.22 Land at Hall Road West, Crosby	14 dwellings	Located approx. 500m from SAC/SPA/Ramsar, accessible along Hall Road, however the scale of development is relatively small so only cumulative impact when all development sites are considered together	Aerial photographs and OS Mapping indicates current land use to be railway sidings adjacent to Hall Road so unlikely to be suitable.	No – too far from the coast for this to be a realistic impact pathway	Located in an area of sensitivity for pink-footed goose and where records of the species exist according to the Lancashire Bird Atlas. However aerial photographs and OS Mapping indicates current land use to be reclaimed railway sidings adjacent to Hall Road so unlikely to be suitable.	Screened out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
						development in Sefton rather than site-specific effects
MN2.23 Land at Southport Old Road, Thornton	85 dwellings	Located 5km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose. The Presence of pink-footed goose is further supported by Thornton to Switch Island Link Wintering Bird Surveys ⁹⁹ and the Lancashire Bird Atlas. Aerial photographs indicate current land use is agriculture which is suitable habitat. Non-breeding season bird surveys would be required to confirm their presence. It should be noted that a Link Road is in the process of construction adjacent to this land parcel. As such, pink-footed goose that were identified as being present during the Thornton to Switch Island Link Winter Bird Survey, may have been displaced by this new disturbance, although TOLSE is to be implemented in these areas. In addition land use may have changed. A survey to determine habitat type and land use should be conducted to ascertain suitability for SPA bird species. If required a non-breeding season bird surveys would be required to confirm their continued presence.	Screened in. It should be noted that a Link Road is in the process of construction adjacent to this land parcel. As such, pink-footed goose that were identified as being present during the Thornton to Switch Island Link Winter Bird Survey, may have been displaced by this new disturbance, although TOLSE is to be implemented in these areas. In addition land use may have changed. A survey to determine habitat type and land use should be conducted to ascertain suitability for SPA bird species. If required a non-breeding season bird surveys would be required to confirm their continued presence.
MN2.24 Land at Holgate	221	Located 5km from SAC/SPA/Ramsar so only cumulative impact when all	Bird species for which SPA and Ramsar are designated may be	No – too far from the coast for this to be a	Located within an area of sensitivity for pink-footed goose. The Presence of pink-footed goose is further supported by	Screened in. It should be noted that a Link

⁹⁹ Thornton to Switch Island Link Environmental Statement Appendix E.2 ix (Wintering Bird Survey contained 2007/8 and 2008/9)

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
		development sites are considered together	present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	realistic impact pathway	Thornton to Switch Island Link Wintering Bird Surveys ¹⁰⁰ and the Lancashire Bird Atlas. Aerial photographs indicate current land use is agriculture which is suitable habitat. Non-breeding season bird surveys would be required to confirm their presence. It should be noted that a Link Road is in the process of construction adjacent to this land parcel. As such, pink-footed goose that were identified as being present during the Thornton to Switch Island Link Winter Bird Survey, may have been displaced by this new disturbance, although TOLSE is to be implemented in these areas. In addition land use may have changed. A survey to determine habitat type and land use should be conducted to ascertain suitability for SPA bird species. If required a non-breeding season bird surveys would be required to confirm their continued presence.	Road is in the process of construction adjacent to this land parcel. As such, pink-footed goose that were identified as being present during the Thornton to Switch Island Link Winter Bird Survey, may have been displaced by this new disturbance, although TOLSE is to be implemented in these areas. In addition land use may have changed. A survey to determine habitat type and land use should be conducted to ascertain suitability for SPA bird species. If required a non-breeding season bird surveys would be required to confirm their continued presence.
MN2.25 Land at Lydiate Lane, Thornton	265 dwellings	Located 5km from SAC/SPA/Ramsar so cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated unlikely to be present as not included within the Switch Island Link Road study as a sensitive area for pink-	No – too far from the coast for this to be a realistic impact pathway	Not located within an area of sensitivity for pink-footed goose according to the Thornton to Switch Island Link Wintering Bird Surveys ¹⁰¹ .	Screened out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated

¹⁰⁰ Thornton to Switch Island Link Environmental Statement Appendix E.2 ix (Wintering Bird Survey contained 2007/8 and 2008/9)

¹⁰¹ Thornton to Switch Island Link Environmental Statement Appendix E.2 ix (Wintering Bird Survey contained 2007/8 and 2008/9)

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
			footed geese.			with the overall quantum of development in Sefton rather than site-specific effects
MN2.26 Land south of Runnell's Lane, Thornton	57 dwellings	Located 5km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose. Aerial photographs indicate current land use is market farming/agriculture however it is understood that MEAS conducted a site visit late 2012 and found the site to be unsuitable	Screened out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
Sefton East Parishes						
MN2.27 Land at Turnbridge Road, Maghull)	40 dwellings	Located c. 7.3km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No – too far from the coast for this to be a realistic impact pathway	Located in an area of sensitivity for pink-footed goose and with some records of the species according to the Lancashire Bird Atlas. However, aerial photographs indicate this parcel is overgrown and scrubbed up. It would therefore constitute unsuitable habitat.	Screened out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.28	295 dwellings	Located 8km from	Bird species for which	No – too far	Located within an area of sensitivity area	Screened in.

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Land North of Kenyon's Lane, Lydiate		SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	from the coast for this to be a realistic impact pathway	for pink-footed goose although with no records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use agriculture (confirmed by surveys commissioned by the proponent in 2013) which is likely to be suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	
MN2.30 Land East of Waddicar Lane, Melling	178 dwellings	Located 8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and adjacent to a broad area with records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use is agriculture which is likely to be suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	Screened in.
MN2.31 Wadacre Farm, Melling	135 dwellings	Located 8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and adjacent to a broad area with records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use is agriculture which is likely to be suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	Screened in.

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
			affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.		use is agriculture which is likely to be suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	
MN2.32 Land South of Spencers Lane, Melling	18 dwellings	Located 8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	No – too far from the coast for this to be a realistic impact pathway	Located close to an area of sensitivity for pink-footed goose and within an area with records of the species according to the Lancashire Bird Atlas. The site is bounded to the south by the M57 from which it is screened by a belt of trees, so visual disturbance is unlikely. Acoustic disturbance from the M57 to pink-footed goose is possible. The presence of pink-footed goose cannot be screened out. Aerial photographs indicate current land use is agriculture which is likely to be suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	Screened in. The site is bounded to the south by the M57 from which it is screened by a belt of trees, visual disturbance is unlikely. Acoustic disturbance from the M57 to pink-footed goose is possible. The presence of pink-footed goose cannot be screened out.
MN2.33 Land at Wango Lane, Aintree)	25 dwellings	Located 8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and within an area with records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use is rough grassland with scattered scrub which may be suitable habitat. This site is a narrow strip adjoining urban development to the	Screened in This site is a narrow strip adjoining urban development to the south. There is potential for increased disturbance to pink-footed goose, so there presence

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
			SPA/Ramsar population in non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.		south. There is potential for increased disturbance to pink-footed goose, so their presence cannot be screened out. Non-breeding season bird surveys would be required to confirm their presence.	cannot be screened out
MN2.34 Aintree Curve, Ridgewood Way, Netherton	100 dwellings	Located 8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No – too far from the coast for this to be a realistic impact pathway	Located in an area of sensitivity for pink-footed goose and with some records of the species according to the Lancashire Bird Atlas. However, aerial photographs indicate this parcel is overgrown and scrubbed up. It would therefore constitute unsuitable habitat.	Screened out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.35 Former Z Blocks Site, Buckley Hill, Netherton	100 dwellings	Located 4.3km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No – too far from the coast for this to be a realistic impact pathway	Located in an area of sensitivity for pink-footed goose and close to an area with a concentration of records of the species according to the Lancashire Bird Atlas. However, aerial photographs indicate this parcel while short grassland is very narrow and constrained by roads and blocks of flats. It would therefore constitute unsuitable habitat.	Screened out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.36 Former St. Raymond's	65 dwellings	Located 4.3km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site	No – too far from the coast for this to be a realistic impact	Located on the margins of an area of sensitivity for pink-footed goose although Litherland itself (except on the northern-most fringes) does not include records of	Screened out. Due to no realistic pathway being identified. Whilst in-

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
School, Harrops Croft, Netherton			and would be adversely affected.	pathway	the species according to the Lancashire Bird Atlas. Aerial photographs indicate this parcel is short grassland which would be suitable habitat. On balance however given the lack of records and its marginal location to an area of sensitivity it is considered that on balance this site is probably not of importance for the species.	combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.37 Land at Pendle Drive, Netherton	52 dwellings	Located 3.2km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No – too far from the coast for this to be a realistic impact pathway	Not located in an area of sensitivity for pink-footed goose or an area with a concentration of records of the species according to the Lancashire Bird Atlas.	Screened out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.38 (Former Bootle High School, Brown's Lane, Netherton	63 dwellings	Located 4.9km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No – too far from the coast for this to be a realistic impact pathway	Not located in an area of sensitivity for pink-footed goose or an area with a concentration of records of the species according to the Lancashire Bird Atlas.	Screened out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.39	37 dwellings	Located 3.2km from SAC/SPA/Ramsar so only cumulative	No evidence that bird species for which SPA	No – too far from the coast	Not located in an area of sensitivity for pink-footed goose or an area with a	Screened out.

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
Former Daleacre Primary School, Daleacre Drive, Netherton		impact when all development sites are considered together	and Ramsar are designated are using site and would be adversely affected.	for this to be a realistic impact pathway	concentration of records of the species according to the Lancashire Bird Atlas.	Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.40 Former Rawson Road School, Bootle	20 dwellings	Located 850m from SAC/SPA/Ramsar (Seaforth Nature Reserve). Whilst it may contribute cumulatively to recreational pressure it is unlikely to result in significant recreational pressure on a stand-alone basis Possibility of site-specific recreational impact depending on quantum of housing to be delivered although access to Seaforth Nature Reserve is managed.	Bird species for which SPA and Ramsar are designated may be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	No – too far from the coast for this to be a realistic impact pathway and there is intervening ports development.	Located in an area of sensitivity for pink-footed goose although not in an area with a concentration of records of the species according to the Lancashire Bird Atlas. Site is open short grassland according to aerial photography. However, it is small, enclosed and urban and is therefore unlikely to support pink footed geese or other SPA birds.	Screened out. Due to the small size of this site (approximately 1ha), it is considered that whilst it may contribute cumulatively to recreational pressure it is unlikely to result in significant recreational pressure on a stand-alone basis The site is small, enclosed and urban and is therefore unlikely to support pink footed geese or other SPA birds
MN2.41 Former St. Wilfrid's School, Bootle	160 dwellings	Located 2.1km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be adversely affected/displaced if/when using the site which would be of importance for the	No – too far from the coast for this to be a realistic impact pathway and there is intervening ports	Located on the edge of an area of sensitivity for pink-footed goose although not in an area with a concentration of records of the species according to the Lancashire Bird Atlas. This does not screen out the presence of pink-footed goose or other birds from the SPA/Ramsar site. Site is open short grassland	Screened in.

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
			SPA/Ramsar population in non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	development.	according to aerial photography so it would constitute suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	
MN2.42 Klondyke Phases 1 and 2	140 dwellings	Located 2.1km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No – too far from the coast for this to be a realistic impact pathway	Not located in an area of sensitivity for pink-footed goose or an area with a concentration of records of the species according to the Lancashire Bird Atlas. Site appears to consist entirely of buildings and hardstanding.	Screened out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.43 Peoples Site, Hawthorn Road/Linacre Lane, Bootle	110 dwellings	Located 4km from SPA/Ramsar site so only cumulative impact when all development sites are considered together	Is essentially developed ground	No – distance too great and large amounts of urban development intervening	Is essentially developed ground	Screened out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.44 Former St. Joan of Arc School,	48 dwellings	Located 1.8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely	No – too far from the coast for this to be a realistic impact pathway and	Located in an area of sensitivity for pink-footed goose although not in an area with a concentration of records of the species according to the Lancashire Bird Atlas. Site is open short grassland according to	Screened out. Due to no realistic pathway being identified. Whilst in-combination recreational

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
Rimrose Road, Bootle			affected.	there is intervening ports development.	aerial photography but it is adjacent to a very busy road and within a highly urban context. As such it is considered unlikely to be of significance.	pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.45 Former St. Mary's School Playing Fields, Bootle	72 dwellings	Located 2.8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No – too far from the coast for this to be a realistic impact pathway and there is intervening ports development.	Not located in an area of sensitivity for pink-footed goose or an area with a concentration of records of the species according to the Lancashire Bird Atlas. Parcel is also small and surrounded by a railway line, busy road and urban development.	Screened out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
MN2.46 Land East of Maghull	Mixed use including 1400 dwellings	Located 9km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose, although the Lancashire Bird Atlas indicates that the main concentrations of the species in Sefton are further north-west. Aerial photographs and reports submitted by the proponent for surveys undertaken in 2010 indicate current land use is agriculture which is likely to be suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	Screened in
MN8.1.	Reserve housing	Located 8km from SAC/SPA/Ramsar so only	Bird species for which SPA and Ramsar are	No – too far from the coast	Located partly within an area of sensitivity for pink-footed goose, although with no	Screened in.

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
Land north of Lamshear Lane, Lydiate	allocation	cumulative impact when all development sites are considered together	designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	for this to be a realistic impact pathway	records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use agriculture (confirmed by 2011 survey commissioned by proponent) which is likely to be suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	
MN8.2 Land adjacent to Ashworth Hospital, Maghull	432	Located 8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and with records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use grassland and scattered scrub however the site is considered too constrained to provide optimum geese and swan habitat. Significant effects are unlikely	Screened out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
Traveller sites						
HC5.1 Land north east of Red Rose	2-3 permanent caravans	Located 1.9km from the SAC, 1.8km from the Ramsar site and 3.5km from the SPA, so only cumulative impact when all	Is essentially developed ground.	No – Distance too great and large amounts of urban	Is essentially developed ground.	Screened out Due to no realistic pathway being identified. Whilst in-

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
Traveller Park, Broad Lane, Formby		development sites are considered together.		development intervening.		combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
HC5.2 Land south west of Red Rose Traveller Park, Broad Lane, Formby	6-8 permanent caravans	Located 1.8km from the SAC, 1.9km from the Ramsar site and 3.5km from the SPA, so only cumulative impact when all development sites are considered together.	Is essentially developed ground.	No – Distance too great and large amounts of urban development intervening.	Is essentially developed ground.	Screened out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
HC5.3 Land at Plex Moss Lane, Ainsdale	6-8 permanent caravans	Located 1.6km from the SAC and Ramsar site and 3.2km from the SPA. There is a footpath direct from the site to the European designated sites. Due to the small size of the development, only a cumulative impact when all development sites are considered together.	Bird species for which the SPA and Ramsar are designated may be adversely affected/ displaced if/ when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat.	No – Existing railway separates this land parcel from the European designated sites.	Located within an area of sensitivity for pink-footed goose and whooper swan. Aerial photographs indicate the site is currently arable land located within a wider arable landscape so may be suitable for both species. Non-breeding season bird surveys would be required to determine their presence or likely absence.	Screened in.
HC5.4	4-6 transitory	Located 1.8km from SAC and	Bird species for which the	No – Too far	Located within an area of sensitivity for	Screened in.

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
Land at New Causeway, Formby	caravans	Ramsar site, and 2.5km from the SPA site, therefore only cumulative impact when all development sites are considered together.	SPA and Ramsar site are designated may be present and could be adversely affected/ displaced if/ when using the site which would be of importance for the SPA, and Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat. The site is located adjacent to the River Alt which is located 4km upstream of the European sites. Standard water quality controls will prevent adverse effects upon the European sites.	from the coast for this to be a realistic impact pathway.	pink-footed goose and whooper swan. Aerial photographs indicate site is currently arable land located within a wider arable landscape so may be suitable for both species. Non-breeding season bird surveys would be required to determine their presence or likely absence.	
NH6 Urban Golf Courses						
NH6 Southport Old Links Golf course	No information given in Plan	Located approx. 2.5km from the SPA and Ramsar sites and 4km from SAC, with residential areas in between so only cumulative impact when all development sites are considered together.	Bird species for which SPA and Ramsar sites are designated may be present and could be adversely affected/ displaced if/when using the site which would be of importance for the SPA/Ramsar population if	No – Too far from the coast for this to be a realistic impact pathway.	Located within an area of sensitivity for pink-footed goose and whooper swan and where the Lancashire Bird Atlas identifies densities of both whooper swan and pink-footed goose. Aerial photographs indicated site is currently part of existing golf course with grassland and scrub so may be suitable for both species, if not already subject to disturbance.	Screened in.

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
			non-breeding season bird surveys determine that this parcel constituted a significant area of supporting habitat.			
NH6 Bootle Golf Course, Dunnings Bridge Road	No information given in Plan.	Located 4km from SPA/Ramsar site so only cumulative impact when all development sites are considered together	Is essentially a functional golf course and is therefore unlikely to be of much significance to waterfowl	No – distance too great and large amounts of urban development intervening	Is essentially a functional golf course within an urban setting and is therefore unlikely to be of much significance to waterfowl	Screened out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.
NH6 Hesketh Golf Course	No information given in Plan	Located 0.5km from the SPA and Ramsar site and within 2.2km from the SAC. Only in-combination recreational impacts	The site is a functional golf course will be subject to levels of disturbance	No, The site is separated from the coast by marine Drive and Fleetwood Road	Essentially a functional golf course and therefore subject to levels of disturbance and unlikely to be of much significance to waterfowl. However, the Lancashire Bird Atlas indicates that the fields associated with Hesketh Golf Course and the neighbouring golf course are extensively used by pink-footed goose and whooper swan. It is recommended that non-breeding bird surveys are undertaken if this site is bought forward.	Screened in.
ED2: Development in Town Centres, District Centres, Local Centres and Local Shopping Parades (and other locations)						
P131		Located 4km from SPA/Ramsar site so only cumulative impact	Is essentially developed ground	No – distance too great and	Is essentially developed ground	Screened out

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ⁹³	Loss of land outside of SPA/Ramsar with value to designated species ⁹⁴	Initial Test Of Likely Significant Effects (TOLSE) (stand-alone)
Former Gasworks Site, Marsh Lane, Bootle		when all development sites are considered together		large amounts of urban development intervening		Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.

APPENDIX 2: TEST OF LIKELY SIGNIFICANT EFFECTS TABLE FOR LOCAL PLAN POLICIES

The below table identifies the initial sift of the Local Plan policies to determine which require further consideration in the main body of the HRA report. Green means unlikely to lead to a likely significant effect, while orange means that a likely significant effect cannot be dismissed following this initial sift and therefore the implications of the policy are considered further in the main body of the report. Recommended amendments to policies are in *bold*.

Policy NH2 (Protection and Enhancement of Nature Sites, Priority Habitats and Species) provides protection for European designated sites, including the provision of site specific HRA if required¹⁰².

As such, some policies have '*HRA implications but screened out*'. However, some policies require more detail than is provided within Policy NH2 to ensure the integrity of European designated sites is not affected.

Impact pathways considered for Test of Likely Significant Effects (TOLSE) of Local Plan policies:

- Disturbance and recreational pressure;
 - Breeding birds
 - Non-breeding birds
 - Other activities causing disturbance
- Mechanical/ abrasive damage and nutrient enrichment;
- Atmospheric pollution;
- Local air pollution;
- Diffuse air pollution;
- Water resources;
- Water quality;
- Port development, shipping and dredging;
- Coastal squeeze; and,
- Loss of supporting habitat.

If a policy is screened in (orange), it requires further consideration if taken forward for development as part of the Local Plan.

1. ¹⁰² Text for policy NH2 includes '*Development which may result in a likely significant effect on an internationally important site must be accompanied by sufficient evidence to enable the Council to make a Habitats Regulations Assessment. ... Development which may adversely affect the integrity of internationally important sites will only be permitted where there are no alternative solutions and there are imperative reasons of overriding public interest, and where compensatory provision has been made.*'

If a policy is screened out (green), it does not require further consideration if taken forward for development.

Table: Sefton Local Plan Policy Test of Likely Significant Effects (TOLSE)

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
Sustainable Development		
<p>SD1:</p> <p>Presumption in favour of sustainable development</p>	<p>1. Planning applications that accord with the policies in this Local Plan (and, where relevant, with policies in Neighbourhood Plans) will be approved, unless material considerations indicate otherwise.</p> <p>2. Where there are no policies relevant to the proposed development, or relevant policies are out of date at the time of making the decision, the Council will grant permission unless material considerations indicate otherwise, taking into account whether:</p> <ul style="list-style-type: none"> • Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the National Planning Policy Framework taken as a whole; or • Specific policies in the Framework indicate that development should be restricted. 	<p>No implications.</p> <p>This is a control policy for the Local Plan</p> <p>There are no impact pathways</p>
<p>SD2: Principles of Development</p> <p>Principles of Sustainable Development</p>	<p>The Local Plan has been developed in accordance with, and will apply the following principles:</p> <ul style="list-style-type: none"> • To support urban regeneration and priorities for investment in Sefton. • To help meet the housing needs of Sefton’s changing population for market and affordable housing; homes for families, the elderly, people with other special housing needs and others. • To promote economic growth, tourism and jobs creation and support new and existing businesses. • To meet the diverse needs for homes, jobs, services and facilities, as close to where they arise as possible. • To help Sefton’s town and local centres to diversify and thrive • To make the most of the value of the Port to the local economy and jobs, while making sure that the impact on the environment 	<p>No implications.</p> <p>This is a control policy and sets out the principles for development within Sefton</p> <p>There are no impact pathways.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>and local communities is mitigated.</p> <ul style="list-style-type: none"> • To make sure that new developments include the essential infrastructure, services and facilities that they require. • To improve access to services, facilities and jobs. • To protect and enhance Sefton’s natural and heritage assets • To achieve high quality design and a healthy environment • To respond to the challenge of climate change, encouraging best use of resources and assets. • To work with partners and make the most of Sefton’s place within the Liverpool City Region. • Development proposals will be assessed taking into account these principles. 	
Meeting Sefton’s needs		
<p>MN1:</p> <p>Housing and Employment Requirements</p>	<p><u>Housing Requirement</u></p> <p>1. During the period 2012 – 2030 provision will be made for the development of a minimum of 11,070 new homes in Sefton. The housing requirement will met at the following average annual rates:</p> <p style="padding-left: 40px;">2012-2017: 500 dwellings per annum</p> <p style="padding-left: 40px;">2017-2030: 660 dwellings per annum</p> <p>2. The housing requirement will be met from the following sources:</p> <ol style="list-style-type: none"> a) The Housing and Mixed Use Allocations identified in Policy MN3; b) Sites with planning permission for housing development; c) Other sites identified in the SHLAA; d) Unanticipated or ‘windfall’ sites. <p><u>Employment Requirement</u></p> <p>3. During the period 2012 – 2030 provision will be made for a total of 84.5 ha of employment land</p> <p>4. New employment development will be provided on the following types of land:</p> <ol style="list-style-type: none"> a) Strategic Employment Locations (identified in MN2) 	<p>HRA implications</p> <p>This policy sets out provision for the number of new net dwellings and the area of new employment land required.</p> <p>This policy may result in the following impact pathways, alone or in-combination:</p> <ul style="list-style-type: none"> • Disturbance and recreational pressure • Mechanical/abrasive damage and nutrient enrichment • atmospheric pollution: local • water resources; • water quality • coastal squeeze; and, • loss of supporting habitat.

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications																																																				
	b) Employment Allocations (identified in MN2) c) Land within Primarily Industrial Areas (identified in ED3) d) Sites with planning permission for employment development e) Other suitable sites in Sefton																																																					
MN2: Housing, Employment, and Mixed Use Allocations	<p><u>Housing Allocations</u></p> <p>1. The following sites are allocated for housing development:</p> <table border="1" data-bbox="577 549 1397 1302"> <thead> <tr> <th>Site Ref.</th> <th>Location</th> <th>Area [ha.]</th> <th>Indicative Capacity</th> </tr> </thead> <tbody> <tr> <td>MN2.1</td> <td>Bartons Close, Southport</td> <td>1.0</td> <td>36</td> </tr> <tr> <td>MN2.2</td> <td>Land at Bankfield Lane, Southport</td> <td>9.0</td> <td>220</td> </tr> <tr> <td>MN2.3</td> <td>Former Phillips Factory, Balmoral Drive, Southport</td> <td>6.0</td> <td>158</td> </tr> <tr> <td>MN2.4</td> <td>Land at Moss Lane – Churchtown South</td> <td>19.7</td> <td>450</td> </tr> <tr> <td>MN2.5</td> <td>Land at Crowland Street, Southport</td> <td>25.8</td> <td>678</td> </tr> <tr> <td>MN2.6</td> <td>Land at Broome Road, Southport</td> <td>8.2</td> <td>215</td> </tr> <tr> <td>MN2.7</td> <td>Land at Lynton Road, Southport</td> <td>1.5</td> <td>25</td> </tr> <tr> <td>MN2.8</td> <td>Former Ainsdale Hope School, Ainsdale</td> <td>9.3</td> <td>243</td> </tr> <tr> <td>MN2.9</td> <td>Former St John Stone School, Meadow Lane, Ainsdale</td> <td>1.3</td> <td>40</td> </tr> <tr> <td>MN2.10</td> <td>Meadows ATC, Sandbrook Road, Ainsdale</td> <td>1.9</td> <td>49</td> </tr> <tr> <td>MN2.11</td> <td>Land south of Moor Lane, Ainsdale</td> <td>2.4</td> <td>75</td> </tr> <tr> <td>MN2.12</td> <td>Land north of Brackenway,</td> <td>13.8</td> <td>286</td> </tr> </tbody> </table>	Site Ref.	Location	Area [ha.]	Indicative Capacity	MN2.1	Bartons Close, Southport	1.0	36	MN2.2	Land at Bankfield Lane, Southport	9.0	220	MN2.3	Former Phillips Factory, Balmoral Drive, Southport	6.0	158	MN2.4	Land at Moss Lane – Churchtown South	19.7	450	MN2.5	Land at Crowland Street, Southport	25.8	678	MN2.6	Land at Broome Road, Southport	8.2	215	MN2.7	Land at Lynton Road, Southport	1.5	25	MN2.8	Former Ainsdale Hope School, Ainsdale	9.3	243	MN2.9	Former St John Stone School, Meadow Lane, Ainsdale	1.3	40	MN2.10	Meadows ATC, Sandbrook Road, Ainsdale	1.9	49	MN2.11	Land south of Moor Lane, Ainsdale	2.4	75	MN2.12	Land north of Brackenway,	13.8	286	<p>HRA implications</p> <p>This policy sets out strategic site allocations for housing, employment and mixed use.</p> <p>Sites identified within this policy may result in:</p> <ul style="list-style-type: none"> • Disturbance and recreational pressure • Mechanical/abrasive damage and nutrient enrichment • atmospheric pollution: local • water resources; • water quality • coastal squeeze; and, • loss of supporting habitat. <p>See Appendix 1 for TOLSE of strategic site allocations.</p>
Site Ref.	Location	Area [ha.]	Indicative Capacity																																																			
MN2.1	Bartons Close, Southport	1.0	36																																																			
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Heading	Policies				HRA Test of Likely Significant Effects (TOLSE) implications
		Formby			
	MN2.13	Land at West Lane, Formby	2.3	40	
	MN2.14	Former Holy Trinity School, Lonsdale Road, Formby	0.9	50	
	MN2.15	Formby Professional Development Centre, Park Road, Formby	1.6	15	
	MN2.16	Land at Liverpool Road, Formby	14.2	319	
	MN2.17	Land at Altcar Lane, Formby	0.8	29	
	MN2.18	Power House phase 2, Hoggs Hill Lane, Formby	0.8	20	
	MN2.19	Land at Andrew's Close, Formby	3.3	87	
	MN2.20	Land at Elmcroft Lane, Hightown	6.5	120	
	MN2.21	Land at Sandy Lane, Hightown	0.7	10	
	MN2.22	Land at Hall Road West, Crosby	0.8	14	
	MN2.23	Land at Southport Old Road, Thornton	3.2	85	
	MN2.24	Land at Holgate, Thornton	8.4	221	
	MN2.25	Land at Lydiate Lane, Thornton	9.9	265	
	MN2.26	Land south of Runnell's Lane, Thornton	5.2	137	
	MN2.27	Land at Turnbridge Lane, Maghull	1.6	40	
	MN2.28	Land north of Kenyons Lane, Lydiate	9.8	295	
	MN2.29	Former Prison Site, Park Lane, Maghull	13.6	370	

Heading	Policies				HRA Test of Likely Significant Effects (TOLSE) implications
	MN2.30	Land east of Waddicar Lane, Melling	5.7	178	
	MN2.31	Wadacre Farm, Chapel Lane, Melling	5.5	135	
	MN2.32	Land South of Spencers Lane, Melling	0.6	18	
	MN2.33	Land at Wango Lane, Aintree	1.8	25	
	MN2.34	Aintree Curve Site, Ridgewood Way, Netherton	3.2	100	
	MN2.35	Former Z Block Sites, Buckley Hill Lane, Netherton	3.5	100	
	MN2.36	Former St Raymond's School playing field, Harrops Croft, Netherton	1.8	65	
	MN2.37	Land at Pendle Drive, Netherton	1.4	52	
	MN2.38	Land at the former Bootle High School, Browns Lane, Netherton	1.4	63	
	MN2.39	Former Daleacre School, Daleacre Drive, Netherton	1.0	37	
	MN2.40	Former Rawson Road Primary School, Rawson Road, Bootle	1.0	20	
	MN2.41	Former St Wilfrid's School, Orrell Road, Bootle	6.6	160	
	MN2.42	Klondyke Phases 2 and 3, Bootle	4.2	140	
	MN2.43	Peoples site, Linacre Lane, Bootle	2.9	110	
	MN2.44	Former St Joan of Arc School,	1.3	48	

Heading	Policies				HRA Test of Likely Significant Effects (TOLSE) implications	
		Rimrose Road, Bootle				
	MN2.45	Former St Mary's Primary School playing fields, Waverley Street, Bootle	1.6	72		
	MN2.46	Land East of Maghull	86.0	1400		
	TOTALS:					
	<p>2. Complementary appropriate facilities for new residents, such as medical services, small scale convenience shops and community facilities, where needed as part of a comprehensive development, will also be permitted on these sites.</p> <p>3. Sites MN2.2, MN2.11, and MN2.19 are adjacent to areas of 'Proposed Open Space'. These areas will be developed for new open space alongside the housing allocation.</p>					
	<p><u>Strategic Mixed Use Allocation</u></p> <p>4. The following site is allocated for a major mixed use development incorporating both housing and employment development:</p>					
	Site Ref.	Location	Area [ha.]	Indicative Capacity		
	MN2.46	Land East of Maghull	86.0	1400 dwellings and 20 ha [net] of employment land		
	<p>5. Site specific requirements relating to the development of the Land East of Maghull site are set out in policy MN4.</p> <p><u>Strategic Employment Locations</u></p>					

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications						
	<p>6. The following Strategic Employment Locations are allocated for new B1 office and light industrial, B2 general industrial, and B8 storage and distribution uses:</p> <ul style="list-style-type: none"> a) MN2.46 Land East of Maghull (20 ha) b) MN2.47 Dunnings Bridge Road Corridor, Netherton (Senate Business Park, Atlantic Business Park, and the Former Peerless Refinery Site) c) MN2.48 Land to the North of Formby Industrial Estate d) MN2.49 Land to the South of Formby Industrial Estate <p>MN2.50 Southport Business Park and its Extension</p> <p>7. Other uses will only be permitted on the Strategic Employment Sites where they:</p> <ul style="list-style-type: none"> • are compatible with adjacent uses and maintain the overall balance of B1, B2 and B8 uses; or • are small scale and intended primarily to serve nearby businesses. <p>8. Development of the Strategic Employment Locations must provide high quality business parks. In particular, new developments should maximise job outputs (including job opportunities for local people), and incorporate high quality design and layout.</p> <p>9. Land North of the Formby Industrial Estate and Land South of the Formby Industrial Estate are subject to separate site specific policies (Policies MN4 and MN5).</p> <p><u>Employment Allocations</u></p> <p>10. The following sites within Primarily Industrial Areas (defined in Policy ED3 and shown on the Policy Map) are allocated for new B1 office and light industrial, B2 general industrial, and B8 storage and distribution uses:</p> <table border="1" data-bbox="580 1257 1400 1321"> <thead> <tr> <th>Site Ref.</th> <th>Location</th> <th>Area [ha.]</th> </tr> </thead> <tbody> <tr> <td>MN2.51</td> <td>Switch Car Site, Wakefield Road,</td> <td>4.7</td> </tr> </tbody> </table>	Site Ref.	Location	Area [ha.]	MN2.51	Switch Car Site, Wakefield Road,	4.7	
Site Ref.	Location	Area [ha.]						
MN2.51	Switch Car Site, Wakefield Road,	4.7						

Heading	Policies			HRA Test of Likely Significant Effects (TOLSE) implications
		Netherton		
	MN2.52	Land at Farriers Way, Netherton	0.5	
	MN2.53	Former Lanstar Site, Hawthorne Road, Bootle	1.0	
	MN2.54	Land at Linacre Bridge, Linacre Lane, Bootle	1.0	
	TOTAL		7.2	
<p>MN3:</p> <p>Strategic Mixed Use Allocation - Land east of Maghull</p>	<p>1. Land east of Maghull (shown on the Policy Map) is identified as a Strategic Mixed Use Allocation. The development of this site will create a comprehensive high quality, well-designed phased sustainable urban extension containing integrated, distinctive, safe and secure residential neighbourhoods, a Business Park and improvements to local infrastructure.</p> <p>2. The development of the site must provide:</p> <ol style="list-style-type: none"> A minimum of 1400 dwellings, including a range of housing types and tenures to meet identified housing needs. This will include the provision of 30% affordable / special needs housing (policy HC1), and provision for older persons housing (policy HC2). A 20 hectare (net) serviced Business Park for office and light industrial (class B1), general industrial, (B2), and storage and distribution (B8) uses to be located adjacent to the site's northern and eastern boundary; A local centre of an appropriate scale to serve the needs of the new community; Appropriate new public open space, incorporating a neighbourhood park, equipped play area, new habitat creation, and provision for outdoor sports; A landscaping network including tree planting, buffer zones between employment and housing areas and to the M58 motorway and railway, the strategic paths and cycle routes network; 			<p>HRA implications</p> <p>This sets out the policy for development within Land east of Maghull to include employment and residential development. This includes strategic site allocation MN2.46.</p> <p>Impact pathways include:</p> <ul style="list-style-type: none"> Disturbance and recreational pressure Mechanical/abrasive damage and nutrient enrichment atmospheric pollution: local water resources; water quality loss of supporting habitat. <p>See Appendix 1 for sites specific TOLSE.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<ul style="list-style-type: none"> f) A layout that facilitates a bus route across the site from School Lane in the north to Poverty Lane in the south. The layout should also ensure an appropriate separation of commercial and residential traffic; g) Walking and cycling routes within and beyond the site linking new residential areas and business park to the railway stations, bus services, new local centre, open space, and local schools; h) Effective management of flood risk within the site, including use of sustainable drainage systems. Buildings should be sited away from areas at higher risk of flooding; and i) The long-term management and maintenance of public open space, landscaping, and sustainable urban drainage systems, to be agreed by the Council. <p>3. Development of the site will be phased to ensure that the required infrastructure is provided alongside new development. The following timetable and restrictions will apply unless an alteration is agreed in writing with the Local Planning Authority:</p> <ul style="list-style-type: none"> a) Maghull North station will be operational before 500 houses are completed; b) The southbound on slip and northbound off slip at Junction 1 of the M58 motorway will be constructed before 500 houses are completed; c) The internal bus route linking School Lane and Poverty Lane will be provided before 500 houses are completed; d) The proposed Business Park will be laid out and serviced and made available for occupation before 750 houses are completed; e) The proposed Business Park shall not be occupied until the new slip roads are completed at Junction 1 of the M58; f) The local centre shall be constructed before 750 houses 	

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>are completed; and</p> <p>g) The neighbourhood park and outdoor sports provision will be provided in a phased manner, so that it becomes available when the adjacent housing is completed.</p> <p>4. The development of this site will secure the following benefits, including through the use of planning conditions, 'Section 106' or other legal agreements and a phasing/ implementation plan:</p> <p>a) A financial contribution to secure the provision of the new Maghull North station and associated park and ride facility;</p> <p>b) A financial contribution to secure the delivery of the new slip roads required at Junction 1 of the M58 motorway;</p> <p>c) A financial contribution to subsidise a bus service through the site for at least 3 years; and</p> <p>d) Provision of other appropriate highways and public transport improvements</p> <p>e) The provision of 30% affordable / special needs housing and older persons housing (policies HC1 and HC2)</p> <p>f) Financial contributions to improve health care and education facilities, including expansion of Summerhill Primary School, and to provide appropriate community facilities within the local centre;</p>	
<p>MN4:</p> <p>Land north of Formby Industrial Estate</p>	<p>1. Land north of Formby Industrial Estate is allocated as a 'Strategic Employment Location' (as shown on the Policy Map) subject to the following requirements:</p> <p>a) The site is developed for the uses specified in Policy MN2. Subject to a full financial appraisal, the development of a limited number of other uses on part of the site may be acceptable where they are necessary to cross subsidise the delivery of B1, B2 and B8 uses.</p> <p>b) Replacement habitat, including for water voles, will be provided before development commences;</p>	<p>No Implications</p> <p>This sets out policy for the development of this parcel of land for employment reasons.</p> <p>This policy refers to a strategic allocation for employment use MN2.48 which was screened out as MEAS confirmed that this is not used as 'supporting habitat'.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<ul style="list-style-type: none"> c) The site accessed via a dedicated signal controlled junction off the Formby Bypass; d) Improved connectivity and/or access with the wider highway network, including enhanced provision for walking, cycling and public transport; e) Flood risk is managed effectively and appropriately within the site, including use of sustainable drainage systems; and a) Provision of a landscaping framework including replacement water vole habitat, appropriate tree planting, and a buffer alongside Downholland Brook. <p>2. These requirements will be achieved through the use of planning conditions, Section 106 and other legal agreements.</p>	<p>There are no impact pathways.</p>
<p>MN5:</p> <p>Land south of Formby Industrial Estate</p>	<p>1. Land south of Formby Industrial Estate is allocated for a 'Strategic Employment Location' (as shown on the Policy Map) subject to the following requirements:</p> <ul style="list-style-type: none"> a) The western part of the site is developed for the uses specified in Policy MN2. Subject to a full financial appraisal, the development of a limited number of other uses on this part of the site may be acceptable where they are necessary to cross subsidise the delivery of B1, B2 and B8 uses. b) Replacement pitches suitable for football available for community use must be provided along the site's eastern boundary; c) Improved connectivity and / or access with the wider highway network, including provision for walking, cycling and public transport; d) Flood risk is managed effectively and appropriately within the site, including use of sustainable drainage systems. e) Provision of a landscaping framework, appropriate tree planting, and a buffer alongside Downholland Brook. <p>2. These requirements will be achieved through the use of planning conditions, Section 106 and other legal agreements.</p>	<p>HRA implications</p> <p>This sets out policy for the development of this parcel of land for employment use.</p> <p>This policy refers to Strategic Allocation MN2.49 which was screened in as this site has potential to be used as supporting habitat to features of the European sites and for potential water quality issues.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
<p>MN6:</p> <p>Land at Brackenway, Formby</p>	<p>1. Land at Brackenway, Formby, is allocated for housing (as shown on the Policy Map). Development of this site must:</p> <ul style="list-style-type: none"> a) Include a flood risk mitigation scheme that: <ul style="list-style-type: none"> i) ensures that new dwellings are not at risk from either fluvial flooding in a 1 in 1000 year event, or flooding from any other source; and ii) ensures that there is no increase in flood risk elsewhere caused by the development; and iii) significantly reduces the existing surface water flood risk to properties on Hawksworth Drive by directing flood flows away from Eight Acre Brook to new flood storage areas adjacent to the Formby Bypass; and iv) is accompanied by a maintenance plan / arrangement that ensures the flood risk mitigation scheme and existing watercourses within the site are maintained in perpetuity. b) Retain and manage 7.9 ha of grassland and wetland habitats as a buffer zone to the adjacent nature reserve, including additional species enhancement measures. In addition, main water courses within the site (including Wham Dyke) must be maintained and enhanced with watercourse buffer habitats. c) Include a signal controlled junction onto the Formby Bypass. <p>2. These requirements will be achieved through the use of planning conditions, Section 106 and other legal agreements.</p>	<p>HRA implications</p> <p>This sets out policy for the development of this parcel of land for residential reasons.</p> <p>This policy refers to strategic Residential Allocation MN2.12 which was screened in as this site has potential to be used as supporting habitat to features of the European sites such as natterjack toad, recreational pressure alone and for potential water quality issues.</p>
<p>MN7:</p> <p>Sefton's Green Belt</p>	<p><u>Extent of Green Belt</u></p> <p>1. The extent of Green Belt in Sefton is defined on the Policy Map.</p> <p><u>Development in Green Belt</u></p> <p>2. The construction of new buildings, some changes of use, and other development is generally regarded as inappropriate development in Green Belt, subject to the exceptions set out in national planning policy. Inappropriate development in Green Belt will</p>	<p>HRA implications</p> <p>This sets out the policy for Sefton's Green belt. It does not identify any new residential development. It identifies potential for energy infrastructure development. It does not provide any exact locations, or quantum of development.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications									
	<p>not be approved except in very special circumstances.</p> <p><u>Extensions to buildings and replacement buildings</u> 3. National Green Belt policy requirements relating to the extension or replacement of existing buildings will be interpreted as follows:</p> <ul style="list-style-type: none"> • Extensions to existing buildings: In general, proposals to extend the original building by more than one third (by volume) either individually or cumulatively with other extensions are considered ‘disproportionate’ and therefore inappropriate in Green Belt. • Replacement buildings: Replacement buildings that are more than 15% larger (by volume) of the existing building(s) are considered inappropriate in Green Belt. <p><u>Low carbon, renewable and decentralised energy Infrastructure</u> 4. Proposals for low carbon, renewable and decentralised energy Infrastructure within the Green Belt will need to demonstrate that the wider benefits of the development constitute very special circumstances which outweigh any harm to the Green Belt.</p>	<p>Potential impact pathways include:</p> <ul style="list-style-type: none"> • loss of supporting habitat (birds) • disturbance to qualifying species <p>However, Policy NH2 (Protection and Enhancement of Natural Sites, Priority Habitats and Species) includes for the protection of European designated sites via the need for HRA if required.</p>									
<p>MN8:</p> <p>Safeguarded Land</p>	<p>1. The following areas are identified as safeguarded land and are identified on the Policy Map:</p> <table border="1" data-bbox="580 1091 1397 1219"> <thead> <tr> <th>Site Ref.</th> <th>Location</th> <th>Area [ha.]</th> </tr> </thead> <tbody> <tr> <td>MN8.1</td> <td>Land at Lamshear Lane, Lydiate</td> <td>33</td> </tr> <tr> <td>MN8.2</td> <td>Land adjacent to Ashworth Hospital, Maghull</td> <td>18.5</td> </tr> </tbody> </table> <p>2. Development on Safeguarded Land will only be permitted where the proposal is:</p> <ul style="list-style-type: none"> • necessary for the operation of the existing use(s); or 	Site Ref.	Location	Area [ha.]	MN8.1	Land at Lamshear Lane, Lydiate	33	MN8.2	Land adjacent to Ashworth Hospital, Maghull	18.5	<p>HRA implications</p> <p>This sets out the policy for development within Safeguarded Land.</p> <p>The type of development is likely to be residential.</p> <p>Sites MN8.1 identified within this policy may</p>
Site Ref.	Location	Area [ha.]									
MN8.1	Land at Lamshear Lane, Lydiate	33									
MN8.2	Land adjacent to Ashworth Hospital, Maghull	18.5									

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<ul style="list-style-type: none"> a temporary use that would retain the open nature of the land and would not prejudice the long term ability to redevelop the site to meet future development needs. <p>3. In all other instances, the development of Safeguarded Land will only be permitted following the adoption of a replacement Local Plan which allocates the development of any of these areas.</p>	<p>result in:</p> <ul style="list-style-type: none"> in combination effect, an increase in recreational pressure disturbance on European Sites; and, loss of supporting habitat (birds). <p>See Appendix 1 for sites specific TOLSE.</p>
Economic development and regeneration		
<p>ED1:</p> <p>The Port and Maritime Zone</p>	<p>1. Development and re-structuring will be permitted in the Port and Maritime Zone (as shown on the Policy Map) including the expansion of the operational port area to the A565 (Derby Road, Rimrose Road and Crosby Road South), provided that the following criteria are met:</p> <ol style="list-style-type: none"> The development is a port-related activity and does not prevent the comprehensive redevelopment of the area for such purposes; Buildings are suitably designed so that they integrate into and respect the surrounding natural, built and historic environment; Appropriate landscaping and/or screening and other forms of mitigation are provided to minimise the impact of the development on sites which abut the landward edge of the Port and Maritime Zone; The development is designed to encourage walking and cycling, and has incorporated, where possible, water and rail as alternatives to road transport; and Appropriate mitigation is included that ensures that impacts resulting from noise, dust, smells or other forms of pollution on the amenity of other occupiers within the area and on adjacent communities are mitigated and minimised. It can be demonstrated that there is no significant risk of 	<p>HRA implications</p> <p>This sets out the policy for development within The Port and Maritime Zone.</p> <ul style="list-style-type: none"> Impact pathways include: Disturbance to: breeding birds and non-breeding birds Other activities causing disturbance Atmospheric pollution; Local air pollution; Diffuse air pollution; Water quality; Port development, shipping and dredging; Coastal squeeze; and, Loss of supporting habitat <p>Part of the SPA is located within The Port and Maritime Zone.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>any impact upon the important ecological interests of Seaforth Nature Reserve.</p> <p>2. The expansion of the operational port area onto all or part of the Seaforth Nature Reserve will not be permitted unless the proposals:</p> <ul style="list-style-type: none"> a) Demonstrate both that there are: <ul style="list-style-type: none"> i. No alternative sites available; and ii. 'Imperative reasons of overriding public interest' as to why the development should be permitted in this location; and subsequently: b) Provide suitable compensatory habitat and necessary mitigation for an appropriate period to end once monitoring confirms that the compensatory habitat is performing a function identical to that of Seaforth Nature Reserve; and c) Demonstrate that there are no likely significant effects on the Liverpool Bay Special Protection Area or other internationally important nature sites . <p>3. Improvements to access will be required to support the expansion of the Port. This may require a new road and /or substantial improvements to the surrounding highway network beyond the Port area, as well as other modes of transport.</p> <p>4. . Planning conditions and / or legal agreements will be used to ensure appropriate compensation, mitigation, infrastructure and appropriate local economic, environment and community benefits are secured and provided.</p>	
<p>ED2:</p> <p>Development in Town Centres,</p>	<p>1. Retail, leisure and other main town centre uses will be directed towards the Borough's existing centres in accordance with the following hierarchy:</p>	<p>HRA implications</p> <p>This sets out the policy for development within</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
<p>District Centres, Local Centres and Local Shopping Parades (and other locations)</p>	<p>Town Centres: Bootle and Southport</p> <p>District Centres: Crosby, Formby, Maghull and Waterloo</p> <p>Local Centres: Ainsdale, Birkdale, Churchtown, Netherton and Old Roan</p> <p>Planning permission will only be granted for development which is appropriate to the role and function of each centre.</p> <p>2. Where proposed outside of the defined town, district and local centres, all retail, leisure and other town centre uses will be subject to a sequential approach to development. This will require applications for town centre uses to be located firstly in town centres, then edge of centre locations, and only if suitable sites are not available should out of centre sites be considered. In addition, all proposed retail, leisure and other town centre uses should demonstrate:</p> <ul style="list-style-type: none"> • that it would not prejudice the delivery of planned investment within any existing defined centre; and • that no significant adverse impact on the vitality and viability of any existing centre will arise from the proposed development. <p>3. For retail, leisure and other town centre uses proposed outside of existing defined centres, impact assessments will be required to accompany planning applications based on the following floorspace thresholds at the following locations:</p> <ul style="list-style-type: none"> • outside of the Primary Shopping Areas of Bootle and Southport, an impact assessment will be required for development which proposes more than 500m² gross floorspace or more; • within 800 metres of the boundaries of the district centres, an impact assessment will be required for development which proposes more than 300m² gross floorspace; and 	<p>Town Centres, District Centres, Local Centres and Local Shopping Parades. This policy does not specify exact locations, type or quantity of development.</p> <p>Any development outside of Town Centres could result in the following impact pathways:</p> <ul style="list-style-type: none"> • loss of supporting habitat;

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<ul style="list-style-type: none"> within 800 metres of the boundaries of the local centres, an impact assessment will be required for development which proposes more than 200m² gross floorspace. <p>Where more than one impact threshold applies, the lower impact threshold will take precedence. Where appropriate impacts on the vitality and viability of designated retail centres in neighbouring local authorities will also be required to be assessed.</p> <p>4. Within Primary Shopping Areas (see figure ED2.1) proposals for non retail uses, compatible with a town centre location, will be permitted providing that:</p> <ul style="list-style-type: none"> (i) the overall retail function of Centre would not be undermined; (ii) the use would make a positive contribution to the overall vitality and viability of the Centre; and (iii) it would not result in an unacceptable cluster of non-retail uses. <p>Outside of Primary Shopping Areas, but within defined centres, all main town centre uses will be considered acceptable in principle.</p> <p>5. Residential development will be permitted in:</p> <ul style="list-style-type: none"> defined town and district centres [outside Primary Shopping Areas] and local centres; or upper floors of buildings in the Primary Shopping Area; or local shopping parades <p>if it does not compromise the vitality and viability of the centre or parade. Careful design is required to ensure residential development and other uses are compatible and complement each other.</p> <p><u>Bootle and Southport Town Centres</u></p> <p>6. Bootle Town Centre is the main focus for local convenience and comparison retail development and other town centre uses in the south of Sefton. Southport Town Centre is the main focus for comparison and convenience retail development, cultural, education, office and leisure development in the north of Sefton.</p>	

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p><u>Development in District and Local Centres</u></p> <p>7. The District and Local Centres are the main focus for retail development to serve local convenience shopping needs. In Crosby and Maghull District Centres, a more significant scale of retail redevelopment will be supported where it contributes positively to the regeneration of these centres, consistent with policy ED6 Regeneration Areas.</p> <p>Local Shopping Parades</p> <p>8. Non-retail development within local shopping parades which are not retail centres in their own right, will be permitted provided that:</p> <ul style="list-style-type: none"> a) a vacant property is brought back into beneficial use; and b) the overall provision of facilities in the local area or the appearance of the local shopping parade is not harmed; and c) the development would have no unacceptable impact on the amenity of surrounding/neighbouring uses. <p>For the purposes of this policy, a shopping parade is defined as groupings of four or more consecutive retail units or four retail units in any six units.</p>	
<p>ED3:</p> <p>Primarily Industrial Areas</p>	<p>The Primarily Industrial Areas are suitable for the following uses:</p> <ul style="list-style-type: none"> • Office and light industrial (class B1) • General Industrial (class B2) • Storage and distribution (class B8) <p>2. Other uses will only be permitted where they:</p> <ul style="list-style-type: none"> • are small scale or ancillary to the above uses; or • maximise job outputs and are compatible with the character and function of the area and with adjacent uses. <p>3. Development within the Primarily Industrial Areas must not:</p> <ul style="list-style-type: none"> a) Significantly harm the amenity of any nearby residents; and Significantly harm the general environment. 	<p>No implications</p> <p>This policy sets out planning control measures for Primary Industrial Areas. No location or quantum of development is identified.</p> <p>There are no impact pathways</p>
<p>ED4:</p>	<p>1. The Mixed Use Areas listed below are suitable for the following types of development: office and light industry, health and</p>	<p>HRA implications</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
<p>Mixed Use Areas</p>	<p>educational uses, civic and community facilities, and other uses that complement the character of the area.</p> <ol style="list-style-type: none"> 1. Bootle Central Area 2. Land at Crosby Road North, Waterloo 3. Land at Copy Lane, Netherton 4. Land to the West of Ormskirk Road, Aintree 5. Switch Island, Aintree 6. Land at Hawthorne Road / Church Road, Bootle <p>2. Residential development will be permitted where an acceptable residential environment can be achieved, consistent with other Plan policies. This should have regard to any adjacent non-residential uses.</p>	<p>This policy sets out planning control measures for Mixed Use Areas.</p> <p>Impact pathways:</p> <ul style="list-style-type: none"> • disturbance and recreational pressure • mechanical/abrasive damage and nutrient enrichment • water resources • water quality
<p>ED5:</p> <p>Tourism</p>	<ol style="list-style-type: none"> 1. Tourism development will be supported in the following locations, subject to other Local Plan policies: <ul style="list-style-type: none"> • Southport Seafront and Southport Central Area • Crosby Coastal Park • Aintree Racecourse • Adjacent to the Leeds and Liverpool Canal. 	<p>HRA implications</p> <p>This outlines policy for tourism.</p> <p>There is potential for this policy to lead to:</p> <ul style="list-style-type: none"> • disturbance and recreational pressure; <ul style="list-style-type: none"> ○ breeding birds ○ non-breeding birds ○ other activities causing disturbance • mechanical/ abrasive damage and nutrient enrichment; • local air pollution; • water resources; • water quality;
<p>ED6:</p>	<p>The following areas are identified as priorities for regeneration in</p>	<p>HRA implications</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
<p>Regeneration Areas</p>	<p>Sefton.</p> <p>1. Regeneration in Bootle The Council is committed to the regeneration of Bootle, including both the redevelopment of derelict and vacant land and buildings throughout Bootle, and the regeneration of the Bootle Central Area.</p> <p>(a) Bootle Central Area The regeneration objectives for Bootle Central Area include:</p> <ul style="list-style-type: none"> a) The refurbishment, re-use or redevelopment of vacant office blocks and other vacant /under-used land for appropriate new uses, consistent with Policy ED4 ‘Mixed Use Areas’. b) The refurbishment and re-use of Listed and historic buildings in and around Bootle Town Hall c) The focussing of new retail development within Bootle Town Centre (as defined on the policy map) d) The development of new restaurants, leisure, hotels, and other appropriate uses within the Central Area, subject to policy ED2 ‘Development in Town Centres, District Centres and Local Centres and Local Shopping Parades’. e) The expansion of Hugh Baird College and it’s campus f) The development of new buildings of an appropriate scale and mass on the Stanley Road frontage. <p>(b) Regeneration Opportunity Sites The following sites (as shown on the Policy Map) are allocated as Regeneration Opportunity Sites:</p> <ul style="list-style-type: none"> (i) 501 – 509 Hawthorne Road, Bootle – 5.2 ha This site is suitable for housing development. Partial development for other uses will be permitted where this does not prevent the development of the remainder of the site for housing, and where the proposed uses are compatible with a residential environment. (ii) Land at Hawthorne Road / Aintree Road, Bootle – 7.1 ha 	<p>This outlines policy for development within Regeneration Areas. Areas ED2, and MN3 are screened in.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>(iii) Former Gasworks Site, Marsh Lane, Bootle – 6.3 ha The redevelopment of the above sites for appropriate uses will be permitted where it can be demonstrated that:</p> <ul style="list-style-type: none"> a) the proposed use is compatible with a residential area; and b) the proposed use is compatible with the Council's regeneration objectives for the area; and c) any partial redevelopment would not make it more difficult to develop the remainder of the site. <p>2. Regeneration of Centres The regeneration of town centres is a priority for Sefton. Development within the following centres, as shown on the Policy Map, should make a positive contribution to the regeneration of the centre:</p> <p>(a) Central Southport The regeneration of the Southport Central Area and Seafront as set out in Policies ED6, ED8 and ED9, including the redevelopment of the Marine Park site.</p> <p>(b) Crosby Centre The regeneration of Crosby District Centre as set out in Policy ED9 Crosby Centre.</p> <p>(c) Maghull Centre The regeneration of Maghull District Centre to provide modern, high quality, town centre floor space, consistent with Policy ED2 'Development in Town, District and Local Centres and Local Shopping Parades'.</p> <p>(d) Seaforth Centre Proposals within the defined Seaforth Centre that support the following regeneration objectives will be acceptable in principle:</p> <ul style="list-style-type: none"> a) the consolidation of the existing shopping area, b) the introduction of complementary uses supporting the retail function, c) the redevelopment and positive re-use of vacant and / or 	

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>derelict land and buildings</p> <p>3. Regeneration of the Dunnings Bridge Road Corridor, Netherton The Dunnings Bridge Road Corridor will be the focus for major new employment generation and investment in South Sefton. The regeneration objectives for this area are:</p> <ul style="list-style-type: none"> a) The development of the 3 Strategic Employment Sites within the Corridor (Policy MN2). b) The redevelopment of the Heysham Road Industrial Estate to provide modern employment premises and environmental enhancements. c) The development of land to support the expanded Port 	
<p>ED7:</p> <p>Southport Central Area</p>	<ol style="list-style-type: none"> 1. Within the Southport Central Area development proposals should be consistent with, and make a positive contribution to, the economic function of the area and the quality of the environment. 2. Development proposals for new hotels and guest houses are acceptable in principle. 3. Development proposals for arts and cultural uses, and visitor attractions are acceptable in principle 4. New education development, including the expansion of Southport College, is acceptable in principle 5. Development within the Central Area must: <ul style="list-style-type: none"> a) Have no unacceptable impact on existing living conditions; and b) Cause no unacceptable harm to the appearance of street frontages, and to the vitality and viability of the town centre in general. 6. On the Lord Street frontages, new development is expected to promote active frontages that support vitality and viability. Amusement arcades and centres will not be permitted on the north west Lord Street frontage between 91 and 581 Lord Street. 7. The use of upper floors for a range of uses comparable with the retail and commercial character of the area will be encouraged. The 	<p>No implications.</p> <p>This outlines development principles for the development of Southport Central Area.</p> <p>There are no impact pathways.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	use of upper floors for residential development will be permitted where they provide acceptable living conditions.	
<p>ED8:</p> <p>Southport Seafront</p>	<p>1. Proposals within the Southport Seafront area for the following uses will be acceptable in principle, subject to other Local Plan policies:</p> <ul style="list-style-type: none"> a) Leisure facilities; b) Hotels; c) Facilities for conferences, events and exhibitions; and d) New or improved visitor attractions. <p>2. Development that would be detrimental to the character of the Seafront or its function as a regionally important centre for tourism, or harm the integrity of adjacent internationally important nature sites, will not be permitted.</p> <p><u>Marine Park site, Marine Drive</u></p> <p>3. The Marine Park site (16.4 ha) is allocated for major visitor-based development [shown on the Policy Map]. Redevelopment of this site must support Southport’s visitor economy and:</p> <ul style="list-style-type: none"> a) Reflect the regional leisure and tourism role of Southport; and b) Ensure that any associated non-tourism development is consistent with the strategy for the site as a whole and is complementary to the key tourism role of the site; and c) Be of high design quality, incorporating attractive frontages to both Marine Drive and Esplanade and high quality landscaping; and d) Link with and complement King’s and South Marine Gardens, enhancing the existing pedestrian route through the site to link with the town centre, and improving views across from the Promenade. <p>4. Any proposal to partially develop the site should be prepared in the context of a development strategy for the whole site must not prejudice the ability to provide a comprehensive redevelopment as envisaged in this policy.</p>	<p>No implications</p> <p>This outlines policy for the seafront at Southport. There are impact pathways, however, Policy ED8 includes text to ensure the integrity of European designated sites remains unaffected.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
<p>ED9:</p> <p>Crosby Centre</p>	<p>1. Within Crosby Centre proposals should be consistent with, and make a positive contribution to, the regeneration of the centre.</p> <p>2. New retail and other town centre developments of an appropriate scale will be supported in order to improve the vitality and viability of the centre.</p> <p>3. Proposals that would prejudice the comprehensive development of key sites within the Centre will not be permitted.</p> <p><u>Design and Townscape</u></p> <p>4. Development within the Centre should be of high quality design, particularly on the key routes and gateways of Liverpool Road, Coronation Road, Islington, Cooks Road, The Bypass and Moor Lane.</p> <p>5. Development should contribute towards a high quality public realm, to ensure that the centre benefits from attractive outdoor areas.</p> <p>6. Development should facilitate and improve pedestrian connections to Moor Lane to support its role as the focal point for the Centre.</p> <p>7. Development proposals should have active ground floor uses facing key routes, gateways and public spaces. Development on key routes should be at least two storeys in height. The use of upper floors for appropriate uses will be encouraged.</p> <p><u>Accessibility</u></p> <p>8. The improvement of traffic flows and accessibility within and beyond the centre is acceptable in principle. Improvements to facilitate pedestrian, cycling, and vehicular access within and beyond the Centre will be required as part of development proposals.</p>	<p>No implications.</p> <p>This outlines policy for the development of Crosby Centre.</p> <p>There are no impact pathways.</p>
<p>Housing and communities</p>		
<p>HC1:</p> <p>Affordable and Special Needs Housing</p>	<p><u>All of Sefton outside Bootle and Netherton</u></p> <p>1. For new developments of 15 dwellings or more (or for residential and other conversions involving 15 or more additional dwellings net) 30% of the total scheme (measured by bedspaces) will be provided as affordable housing.</p>	<p>No implications.</p> <p>This policy outlines provision for affordable and special needs housing and does not outline provision for new residential development.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>2. 80% of the affordable housing should be provided as social rented/affordable rented and the remaining 20% provided as intermediate housing.</p> <p><u>Bootle and Netherton</u></p> <p>3. Affordable housing will be required as part of proposals for new developments of 15 dwellings or more (or for residential and other conversions involving 15 or more additional dwellings net) on the basis of 15% of the total scheme (measured by bedspaces).</p> <p>4. Affordable housing should be 50% social/affordable rented and 50% intermediate housing</p> <p><u>All Areas</u></p> <p>5. Special needs housing can be substituted for up to 50% of the site affordable housing contribution on a bedspace for bedspace basis. The residual affordable housing requirement should meet the relevant tenure requirement.</p> <p>6. Where extra care or sheltered housing is proposed to be substituted for affordable housing, 80% of this should be provided as social rented/affordable rented and the remaining 20% provided as intermediate housing for all parts of the Borough apart from Bootle and Netherton, where it should be provided as 50% social/affordable rented housing and 50% intermediate housing.</p> <p>7. Affordable and/or special needs dwellings shall be:</p> <p>a) 'tenure blind' i.e. there shall be no external visual difference between the affordable/special needs housing and market housing, and</p> <p>b) 'pepper-potted' i.e. there shall be a reasonable dispersal of affordable housing or special needs units within residential developments (i.e. groupings of no more than six units) to promote mixed communities and minimise social exclusion.</p> <p>The only exception to this will be where it can be</p>	<p>There are no impact pathways.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>demonstrated that the special needs housing has to be grouped together for functional or management purposes.</p> <p>8. Affordable and/or special needs housing will be provided in accordance with this policy unless a robust assessment of a scheme's economic viability confirms that this cannot be achieved.</p>	
<p>HC2:</p> <p>Housing Type, Mix and Choice</p>	<p>1. In developments of 15 or more dwellings, the mix of new properties provided must be as follows unless precluded by site specific constraints, economic viability or prevailing neighbourhood characteristics:</p> <ul style="list-style-type: none"> • A minimum of 25% of market dwellings must be 1 or 2 bedroom properties • A minimum of 40% of market dwellings must be 3 bedroom properties <p>These requirements do not apply to wholly apartment/flatted, extra care, and sheltered housing developments. Any new affordable dwellings are also exempt.</p> <p>2. In addition, at least 20% of all new homes, in developments of 15 homes or more, should be designed to meet the Lifetime Homes Standards.</p> <p>3. Where housing for older people is provided as part of a larger scheme, this should, where appropriate, be located within the scheme in the most accessible location for local services and facilities.</p> <p>4. Proposals for residential care accommodation that would result in or exacerbate an existing oversupply will be refused.</p>	<p>No implications.</p> <p>This policy outlines provision housing type, mix and choice and does not outline provision for new residential development.</p> <p>There are no impact pathways.</p>
<p>HC3:</p> <p>Residential development and development in Primarily</p>	<p>1. New residential development will be permitted in Primarily Residential Areas shown on the Policy Map where consistent with other Local Plan policies.</p> <p>2. Non-residential development will be permitted in Primarily</p>	<p>No implications.</p> <p>This policy is a control document for residential development and housing within Primary</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
<p>Residential Areas</p>	<p>Residential Areas provided that it can be demonstrated that the proposal:</p> <ul style="list-style-type: none"> a) will not have an unacceptable impact on the living conditions of neighbouring properties; and b) will otherwise not harm the character of the residential area; and c) will not undermine objectives of the plan regarding housing delivery. <p>3. Residential development will be permitted in other areas except where:</p> <ul style="list-style-type: none"> a) the land is required for the purpose for which it is designated; b) the development would conflict with the allocated land use; and c) it would result in an unacceptable residential environment. <p>4. New residential development must achieve a minimum density of 30 dwellings per hectare, except where:</p> <ul style="list-style-type: none"> a) constraints within the site, or the provision of infrastructure within the site, make this impractical; or b) a lower density can be justified having regard to the layout and character of the immediate surrounding area. 	<p>Residential Areas</p> <p>There are no impact pathways.</p>
<p>HC4:</p> <p>House Extensions, Alterations and Conversions to Houses in Multiple Occupation and Flats</p>	<p>1. Extensions and alterations to dwelling houses will be approved where:</p> <ul style="list-style-type: none"> a. They are of a high quality of design that matches or complements the style of the dwelling and the surrounding area; b. The size, scale and materials of development are in keeping with the original dwelling and the surrounding area; c. The extensions and alterations are designed so that there shall be no significant reduction in the living conditions of the occupiers of neighbouring properties. In particular, extensions must not result in: <ul style="list-style-type: none"> • Loss of outlook, from the main windows of neighbouring 	<p>HRA implications but screened out.</p> <p>This policy outlines development guidance for extension and alterations of houses, and conversions to multiple occupation and flats.</p> <p>This policy could result in increases in population within the area of conversions to multiple occupancy. It is considered that this will be a small increase.</p> <p>However, Policy NH2 (Protection and</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications																				
	<p>habitable rooms</p> <ul style="list-style-type: none"> • A significant loss of light/overshadowing for neighbours • An overbearing or over-dominant effect on the habitable rooms of neighbouring properties • A significant loss of privacy for neighbouring residents. <p>2. Development involving the conversion of buildings to Houses in Multiple Occupation or flats will be permitted where it will not cause significant harm to:</p> <ul style="list-style-type: none"> • The character of the area or • The living conditions for either the occupiers of the property or for neighbouring properties. 	<p>enhancement of natural sites, priority habitats and species) includes for the protection of European designated sites via the need for HRA if required.</p>																				
<p>HC5:</p> <p>Planning for Gypsies and Travellers</p>	<p>1. The following sites are allocated for Gypsy and Traveller pitches in order to meet the Borough's needs for Gypsy and Traveller accommodation:</p> <table border="1" data-bbox="584 804 1397 1214"> <thead> <tr> <th>Site location</th> <th>Size</th> <th>Type of site</th> <th>Maximum Number of pitches</th> </tr> </thead> <tbody> <tr> <td>Land north east of Red Rose Traveller Park, Broad Lane, Formby</td> <td>0.4ha</td> <td>Permanent</td> <td>6-8</td> </tr> <tr> <td>Land south west of Red Rose Traveller Park, Broad Lane, Formby</td> <td>0.2ha</td> <td>Permanent</td> <td>2-3</td> </tr> <tr> <td>Land at Plex Moss Lane, Ainsdale</td> <td>1.0ha</td> <td>Permanent</td> <td>6-8</td> </tr> <tr> <td>Land at New Causeway, Ince Blundell</td> <td>0.4ha</td> <td>Transit</td> <td>4-6</td> </tr> </tbody> </table> <p>These sites are identified on the policy map. These sites are suitable for Gypsy and Traveller pitches and other ancillary development</p>	Site location	Size	Type of site	Maximum Number of pitches	Land north east of Red Rose Traveller Park, Broad Lane, Formby	0.4ha	Permanent	6-8	Land south west of Red Rose Traveller Park, Broad Lane, Formby	0.2ha	Permanent	2-3	Land at Plex Moss Lane, Ainsdale	1.0ha	Permanent	6-8	Land at New Causeway, Ince Blundell	0.4ha	Transit	4-6	<p>HRA implications</p> <p>This outlines planning requirements for gypsies and travellers. It includes the provision of four sites.</p> <p>See Appendix 1 for Strategic Site Allocation TOLSE</p> <p>Two of these sites have impact pathways and as such cannot be screened out. Impact pathways are:</p> <ul style="list-style-type: none"> • Increased recreational pressure; • disturbance to birds using supporting habitat; and, • loss of supporting habitat. • water quality
Site location	Size	Type of site	Maximum Number of pitches																			
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Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>required for Gypsy and Traveller accommodation. Development which is not compatible with Gypsy and Traveller accommodation will not be permitted on these sites.</p> <p>2. Proposals for new sites for Gypsy and Traveller accommodation should meet the following criteria:</p> <ul style="list-style-type: none"> • The site should provide a safe environment for intended occupants • The site should have good or adequate access to the primary road network • The site should be within easy reach of a range of essential facilities and services, including health services, schools, and jobs • The use should not cause significant harm to the amenity of neighbouring properties • The site should, as far as possible, be in a location that meets the aspirations of the Gypsy and Traveller community <p>The development of the site should not result in unacceptable harm to the local environment, including to the integrity of internationally important nature sites.</p>	
<p>HC6:</p> <p>Assets of Community Value</p>	<p>Where development will result in the loss, or partial loss of an Asset of Community Value, planning permission will be granted where the Applicant has demonstrated that:</p> <ul style="list-style-type: none"> • Alternative provision will be made to meet community needs; or, • An existing accessible facility will provide the facility or service that is being lost with the development. • There is a sufficient existing provision to meet a community's day-to-day needs. 	<p>No implications</p> <p>This outlines provision for retention of community assets.</p> <p>No pathways of impact.</p>
<p>HC7:</p> <p>Education and care institution sites in the urban area</p>	<p><u>Sites in active use as schools, colleges or care institutions</u></p> <p>1. Development which is for the following uses is acceptable in principle:</p> <p>a) Uses directly related to the existing use of the site or which</p>	<p>HRA implication</p> <p>This policy outlines development of educational and care institute sites within the</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>sustain the viability of the existing use of the site.</p> <p>b) Community-based recreation or sports facilities ancillary to the existing use of the site, or</p> <p>c) Environmental improvements which enhance the site's environmental quality or green infrastructure benefits.</p> <p>2. Development must retain key green infrastructure and heritage characteristics of the site.</p> <p><u>Sites formerly in use as schools, colleges or other institutions</u></p> <p>3. Development for an alternative use which is compatible with the surrounding area is acceptable in principle.</p>	<p>urban area. Ten housing site allocations are located at former school premises. Three of these have been screened in. these are MN2.8, MN2.9, and MN2.41. As such this policy cannot be screened out.</p> <p>See Appendix 1 for TOLSE for former educational sites.</p>
Infrastructure		
<p>IN1:</p> <p>Infrastructure and Developer Contributions</p>	<p>1. The Infrastructure Delivery Plan lists the essential infrastructure required for the implementation of the Local Plan strategy.</p> <p>2. Social, environmental and physical infrastructure will be protected, enhanced and provided where there is an identified need to support sustainable communities.</p> <p>3. Developer contributions may also be sought in appropriate locations to assist with regeneration objectives set out elsewhere in the plan.</p> <p>4. Where appropriate, contributions will be sought to enhance and provide infrastructure to support new development. This may be secured as a planning obligation through a legal agreement, through the Community Infrastructure Levy (CIL) or through other agreements.</p> <p>5. Where appropriate, the Council may require developers to provide the necessary infrastructure themselves as part of their development proposals, rather than making financial contributions.</p> <p>6. Planning conditions or phased legal agreements may be used to ensure essential infrastructure is provided within appropriate timescales.</p> <p>7. The Council will work with a range of partners to make sure that infrastructure is provided in the right location when required.</p>	<p>No implications</p> <p>This outlines policy for infrastructure and developer contributions.</p> <p>No impact pathways</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>8. The impact of providing or contributing to infrastructure on the viability of development proposals will be considered.</p>	
<p>IN2:</p> <p>Transport</p>	<p>1. The Local Plan will seek an efficient and extensive transport network which enables services and facilities to be accessible to all, whilst also reducing congestion and minimising the environmental impact of transport. It will achieve this by:</p> <ul style="list-style-type: none"> • Improved access to the Port of Liverpool by a range of transport types • A new train station and park and ride facilities at Maghull North • Development or extension of park and ride facilities at Hall Road, Seaforth & Litherland and Waterloo rail stations • The provision of interchange facilities in Southport, Crosby and Maghull centres. • Improved parking facilities in Bootle, Southport, Crosby and Maghull centres. • Upgrading of the motorway access at Junction 1 on the M58 • Traffic management improvements to the A565 and A5036 • Improved access to Southport from the east [A570 corridor] • Safeguarding the rail link between Bootle New Strand and Aintree rail station [i.e. the Aintree Curve]. <p>2. The Council's general priorities for the transport network include:</p> <ul style="list-style-type: none"> • Protecting the freight distribution network • Maintaining, improving and extending the walking and cycling network • Better connecting new and existing neighbourhoods with the public transport network • Creating opportunities for existing transport to become more sustainable such as by promoting/installing charger units at appropriate places along routes. <p>3. Transport Assessments or Transport Statements will be required for all significant development (see paragraph 9.17 below). A</p>	<p>HRA implications</p> <p>This outlines transport based policy.</p> <p>Projects noted within his policy have potential to impact upon European designated sites via the following impact pathways:</p> <ul style="list-style-type: none"> • loss of supporting habitat; • disturbance to bird features during construction and operation al phase; and, • increased recreational pressure

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>Transport Assessment will also be required where a development:</p> <ul style="list-style-type: none"> • Is below the Transport Assessment threshold but which will generate a significant number of trips • Will affect the strategic route network • Are judged to result in a significant impact on air quality, particularly where the development is within, or adjacent to and an Air Quality Management Area or the development would be likely to result in the declaration of an Air Quality Management Area • Will have a significant impact upon a level crossing. Any proposal that significantly impacts upon a level crossing should be accompanied by a transport assessment which includes assessment of the level crossing. <p>4. Access onto the Primary Route Network will be restricted as follows:</p> <ul style="list-style-type: none"> • direct access onto the Highways Agency's motorways and trunk road network will not normally be permitted • access onto the remainder of the primary route network, whether indirectly (by way of an existing access) or directly (by a newly built access) will be permitted where it does not reduce the capacity of the road. <p>5. Direct access onto the primary route network will not be permitted where a reasonable alternative exists.</p> <p>6. The preferred locations for development which generates significant movement of freight are:</p> <ul style="list-style-type: none"> • Sites which are served by sea, canal, rail or where rail facilities can be provided as part of the development or, where these options are not available, • Where there is good access to a road designated as a Freight Priority Route. 	
<p>IN3:</p>	<p>1. The Council will promote sustainable waste management in accordance with the waste hierarchy. As set out in the Joint</p>	<p>No implications</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
<p>Managing waste</p>	<p>Waste Local Plan it will work to:</p> <ul style="list-style-type: none"> • Identify and safeguard [where appropriate] waste management sites in appropriate locations; • Assist in the implementation of a resource-recovery led strategy for sustainable waste management; • Ensure that the Borough contributes to meeting the identified sub-regional waste management needs; • Encourage good design in new development in order to minimise waste, promote the use of reclaimed and recycled materials and to facilitate the storage, collection and recycling of waste; • Encourage the sustainable transport of waste and promote use and waste audits or a similar mechanism, such as waste management plans; and • Ensure that waste management facilities are developed whilst minimising any negative impacts on the environment and communities of the Borough. 	<p>This outlines policy for managing waste.</p> <p>This policy does not provide specifically for new development, only that it should take place in ‘appropriate locations’.</p> <p>There are no impact pathways.</p>
<p>A quality, healthy environment for Sefton</p>		
<p>EQ1:</p> <p>Planning for a healthy Sefton</p>	<p>1. Development should help maximise opportunities to improve quality of life to make it easier for people in Sefton to lead healthy, active lifestyles, by:</p> <ul style="list-style-type: none"> • Improving access to a choice of homes and providing new homes that meet the needs of future occupiers • Improve access to jobs • Making adequate provision for safe waste storage or recycling opportunities • Designing easy to maintain, safe and attractive public areas which minimise the opportunity for from crime or the fear of crime and which promote social cohesion • Encouraging people to take physical exercise by providing opportunities for walking, cycling, outdoor recreation and sport 	<p>HRA implications</p> <p>This policy includes provision for health. It includes provision to encourage people to take physical exercise such as <i>‘walking, cycling, outdoor recreation, sport and physical exercise close to where people live’</i></p> <p>Impact pathways are:</p> <ul style="list-style-type: none"> • increased recreational pressure.

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<ul style="list-style-type: none"> • Appropriately locating of food and drink shops, hot food takeaways drinking establishments, restaurant, cafes and other non food and drink uses, having regard to other land uses in the local area • Having regard to accessibility of homes, education, jobs, public transport, health and other services, recreational opportunities and community, cultural and leisure facilities • Encouraging measures to achieve affordable warmth • Managing air quality and pollution 	
<p>EQ2:</p> <p>Design</p>	<p>1. Development will only be permitted, where it is of a high quality design that responds positively to the local character and distinctiveness of the surroundings.</p> <p>2. To achieve high quality design, development must demonstrate that the following have been considered:</p> <p>a) Scale, density, massing, height, landscape, layout, alignment, orientation, materials, access, active frontages, townscape, architecture and amenity.</p> <p>b) Retaining or creating good quality landmark and gateway features.</p> <p>c) Ease and safety of movement and circulation of walkers, cyclists, vehicles and people with limited mobility, both within and into the site</p> <p>d) Safety and security of those within and outside the development.</p> <p>e) Preservation and enhancement of views towards, within and out of the development.</p> <p>f) Flexibility and adaptability to change in order to be sustainable.</p> <p>g) The delivery of high quality, well-connected and well-maintained public space.</p>	<p>No implications</p> <p>This outlines policy for design and is a development control document.</p> <p>This policy does not provide specifically for new development.</p> <p>There are no impact pathways.</p>
<p>EQ3:</p> <p>Accessibility</p>	<p>1. In order to improve accessibility in Sefton, new development must adhere to the following principles:</p> <ul style="list-style-type: none"> • Be located and designed to encourage walking and cycling both within, to and from the site, • Where practical, be located in areas that are accessible, or are capable of being made accessible to bus stops and rail 	<p>HRA implications</p> <p>This outlines policy for accessibility.</p> <p>It includes the principle to encourage walking and cycling within and to and from the site.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>stations,</p> <ul style="list-style-type: none"> • Be accessible to an existing range of local services and facilities or, where appropriate, be supported by new services and facilities, • Consider the needs of all residents and users of services and buildings, including those with limited mobility, • Consider the safety of pedestrians, cyclists and all road users, and • Comply with the Council's parking standards. 	<p>Impact pathways are:</p> <ul style="list-style-type: none"> • increased recreational pressure; and, • disturbance to bird features during construction and operation al phase.
<p>EQ4:</p> <p>Pollution and Hazards</p>	<p>1. Development proposals should demonstrate that environmental risks have been evaluated and appropriate measures have been taken to minimise the risks of adverse impacts which include amenity, damage to health and wellbeing, property and the natural environment from:</p> <ul style="list-style-type: none"> • Pollution of the land, water including surface water and groundwater. and the air • Hazardous substances • Noise/vibration, dust, odour or artificial light pollution. <p>2. Development will be permitted where it can be demonstrated that:</p> <ul style="list-style-type: none"> • Appropriate measures are incorporated into proposals to avoid pollution to air, water and soil; • There would be no unacceptable risk to the users of the site, occupiers of neighbouring land or the environment from the presence of hazardous substances. Proposals for sensitive uses close to existing sources of pollution must demonstrate, that there will be no detrimental impact on the amenity of existing or future occupiers; • The impact of noise/vibration and lighting will not be significant or can be reduced to an acceptable level. <p>3. Development must lead to no deterioration of, and where practicable improve, water quality; and must protect and enhance</p>	<p>No implications</p> <p>This policy provides for the protection against pollution and hazards.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>Sefton’s waterbodies and water environment.</p> <p>4. The cumulative effects of pollution will be taken into account in terms of the impact of a number of developments in an area. The effects of a combination of various types of pollution will also be considered.</p>	
<p>EQ5:</p> <p>Air quality</p>	<p>1. Development proposals must demonstrate that they will not:</p> <ul style="list-style-type: none"> • Result in a significant worsening of air pollution levels in an Air Quality Management Area or • Hinder the revocation of an Air Quality Management Area by: <ul style="list-style-type: none"> ○ introducing significant new sources of air pollutants; or, ○ Introducing new development whose users will be especially susceptible to air pollution or • Lead to a significant decline in air quality <p>2. Major developments must incorporate appropriate measures to reduce air pollution and minimise exposure to harmful levels of air pollution to both occupiers of the site and occupiers of neighbouring sites.</p>	<p>No implications</p> <p>This policy provides protection to prevent reductions in air quality.</p> <p>There are no impact pathways</p>
<p>EQ6:</p> <p>Land Affected by Contamination</p>	<p>1. Development on contaminated land will be granted permission where it can be demonstrated that both future residents/occupiers of the development site, the residents of neighbouring sites and controlled water systems, ecological systems and property will not be exposed to harmful levels of contamination.</p> <p>2. Where development is proposed on a site that may be contaminated, the developer must establish the nature, degree and extent of any contamination and other relevant ground conditions on the development site by carrying out preliminary investigations.</p> <p>Where there is evidence that a site may be affected by contamination, or the proposed development is particularly sensitive to contamination, planning applications must be</p>	<p>No implications</p> <p>This outlines planning policy for dealing with land affected by contamination.</p> <p>There are no impact pathways</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>accompanied by a Preliminary Investigation report.</p> <ol style="list-style-type: none"> 3. Where planning permission is granted for sites where contamination has been identified, the developer will be required to (where appropriate): <ul style="list-style-type: none"> • Carry out a full site investigation and assessment of development; and • Remediate the site before it is developed. 4. Where remediation is required, a verification report must be submitted to show that the agreed remediation objectives and criteria have been complied with. 5. After remediation, land should not be capable of being listed as contaminated land under Part 2A of the Environmental Protection Act 1990. 	
<p>EQ7: Energy efficient and low carbon design</p>	<ol style="list-style-type: none"> 1. Major development should incorporate measures to reduce greenhouse gas emissions where practicable, through one or more of the following: <ol style="list-style-type: none"> a) Making the most of natural solar gain through site and building layout and design, b) Energy efficiency measures, including for existing buildings, c) Use of low carbon, decentralised and renewable energy, d) Provision of infrastructure for low emissions vehicles. 	<p>No implications</p> <p>This policy outlines development principles for energy efficient and low carbon design.</p> <p>There are no impact pathways</p>
<p>EQ8: Managing flood risk and surface water</p>	<p><u>Flood risk generally</u></p> <ol style="list-style-type: none"> 1. Development must be located in areas at lowest risk of flooding from all sources. Within the site, buildings must be located in the areas at lowest risk of flooding. 2. Development must not increase flood risk from any sources within the site or elsewhere, and where possible should reduce flood risk. <p><u>Surface water management</u></p> <ol style="list-style-type: none"> 3. Site-specific Flood Risk Assessments will be required for all development on sites of 0.5 hectares or more in Critical Drainage Areas as defined in the Strategic Flood Risk Assessment. 	<p>HRA implications</p> <p>This outlines policy for the management of surface water and flood risks. Potential impact pathways are:</p> <ul style="list-style-type: none"> • changes in water quality • changes in water quantity

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>4. Development must incorporate sustainable drainage systems to manage surface water flooding run-off within the site so that:</p> <ul style="list-style-type: none"> a) Surface water run-off rates and volumes are reduced by 20% (compared to the pre-existing rates) for sites covered by buildings or impermeable hard surfaces, and for greenfield sites do not exceed greenfield rates. b) Surface water discharge is targeted, using a sequential approach and proposals to discharge surface water into anything other than the ground must demonstrate why the other sequentially preferable alternatives cannot be implemented; <ul style="list-style-type: none"> i. Into the ground ii. Into a watercourse or surface water body, iii. Into a surface water sewer, or iv. Into a combined sewer. c) Above ground, natural drainage features rather than engineered or underground systems are used. <p>5. Sustainable drainage systems and any water storage areas must control pollution and should enhance water quality and existing habitats and create new habitats where practicable.</p> <p>6. Development on an area which is an adopted Sustainable Drainage System or has a formal flood risk management function is acceptable in principle where the development proposals do not reduce the ability of the area to manage the surface water or flood risk.</p>	
<p>EQ9:</p> <p>Provision of public open space, strategic paths and trees in development</p>	<p>Public open space</p> <ul style="list-style-type: none"> 1. Proposals for 50 or more new-build homes, or which are part of a phased development for a site of 100 or more new homes must provide appropriate high quality new public open space. 2. New public open space (including outdoors sports facilities) created during the Plan period will be accorded the policy protection set out in policy NH5 'Protection of public open space, 	<p>No implications</p> <p>This provides policy for the provision of public open space, strategic paths and trees within development. This include the provision for developments of 50 or more new build dwellings (phased or un-phased) to <i>provide</i></p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>Countryside Recreation Areas and other outdoor sports and recreation facilities available to the public', even where it is not shown on the Policy Map.</p> <p>3. Development which includes new public open space must incorporate suitable arrangements for long-term management, maintenance and public access to the new open space.</p> <p><u>Sefton's green network of paths and cycleways</u></p> <p>4. Development with the potential to adversely affect the establishment or retention of a public right of way, or Strategic Path as shown on the Policy Map, will not be permitted unless sufficient mitigation is provided to ensure that existing access is maintained, and where possible enhanced, or where an acceptable alternative path is provided.</p> <p>5. Links to, or extensions of existing public rights of way, strategic paths or cycleways will be supported where they improve the accessibility of an existing community or a development site.</p> <p><u>Trees and landscaping</u></p> <p>6. Major development proposals must:</p> <ul style="list-style-type: none"> a) Not result in unacceptable loss of, or damage to, existing trees or woodlands or significant landscaping during or as a result of development; b) Replace any trees lost as a result of the development at a ratio of 1:1 within the site. c) Include an appropriate landscape scheme, showing all hard and soft landscaping and including future management arrangements.. 	<p><i>appropriate high quality new public open space'</i>. This will help alleviate recreational pressure upon the European designated sites.</p> <p>There are no impact pathways</p>
<p>EQ10:</p> <p>Food and Drink</p>	<p>1. Proposals for food and drink uses in the town, district and local centres will only be permitted where they are located so as to meet all of the following criteria:</p> <ul style="list-style-type: none"> • They would not cause significant harm to local amenity; • They would not result in unacceptable groupings of similar uses where they would harm the character of the area or 	<p>No implications</p> <p>This outlines policy for food and drink use proposals.</p> <p>There are no impact pathways.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>harm public health; and</p> <ul style="list-style-type: none"> • Any external ventilation and extractor systems do not: <ul style="list-style-type: none"> ○ Significantly harm the external appearance of the building or the street scene. ○ Harm the residential amenity of neighbouring properties through noise or odours. <p>2. Proposals for food and drink uses in or adjacent to Primarily Residential Areas and/or close to school and educational establishments will not be permitted where they cause significant harm to living conditions local residents, encourage unhealthy lifestyle choices in local people or harm the residential character of the local area.</p>	
<p>EQ11:</p> <p>Advertisements</p>	<p>1. Proposals for advertisements will be granted consent where they do not have an unacceptable impact upon amenity and are not harmful to public safety.</p> <p>2. In relation to amenity the following will be considered:</p> <ul style="list-style-type: none"> • They should respect the scale of and be sympathetic to their immediate surroundings and not dominate buildings, street scenes or open areas; • They should respect the design and appearance of buildings on which they are displayed • The size, location, and means of any illumination and whether a proliferation of adverts will create clutter, <p>3. In relation to public safety the following will be considered:</p> <ul style="list-style-type: none"> • The location, siting, illumination, design or scale must not impede movement of pedestrians or make it unsafe for pedestrians and must not compromise the safety of vehicles using the public highway. <p>4. Advertisements displayed within or adjacent to Heritage Assets will need to be of particularly high quality, respecting the size, materials, proportions and detailing of the building.</p> <p>Advertisements on the verandahs in the Lord Street and Birkdale</p>	<p>No implications</p> <p>This outlines policy for advertisement proposals.</p> <p>There are no impact pathways.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p><u>Village Conservation Areas</u></p> <p>5. Advertisements attached to the verandahs should be limited in extent and must not over-dominate or hide their features. The cumulative effects of signage on the verandahs will be taken into account.</p>	
Natural and heritage assets		
<p>Strategic Policy NH1:</p> <p>Environmental Assets</p>	<p>1. Sefton’s natural and heritage assets together with its landscape character should continue to contribute to the Borough’s sense of place, local distinctiveness and quality of life. Development proposals and other initiatives should contribute positively towards achieving this.</p> <p>2. A hierarchical approach will be taken to the protection and enhancement of Sefton’s natural and heritage assets, according to their designation and significance.</p> <p>3. Development should protect and manage Sefton’s natural assets. Where possible, development should:</p> <ul style="list-style-type: none"> • Maintain, restore, enhance or extend these natural assets; and • Create new habitats and green infrastructure; and • Secure their long-term management. <p>The main priorities are; improving access, quality, linkages and habitat within the city region ecological network (including the Nature Improvement Area), improving access to and the quality of public open space and other outdoor facilities available to the public; and urban trees.</p> <p>4. Sefton’s heritage assets should be protected from losses and harmful changes to their significance, fabric and features or in their settings. Development should:</p> <ul style="list-style-type: none"> • Secure the long-term future of the heritage asset • Be designed to avoid harm • Be of a high quality design which is sympathetic to the historic context of the heritage assets affected • Incorporate proposals for proper repair and re-instatement of historic features and/or involve work which better reveals the 	<p>No implications</p> <p>This outlines policy for the protection of environmental assets.</p> <p>There are no impact pathways.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>significance of Sefton’s heritage assets and their settings</p> <ul style="list-style-type: none"> Where losses are unavoidable, recording, analysis and reporting must be undertaken where appropriate. 	
<p>NH2:</p> <p>Protection and Enhancement of Nature Sites, Priority Habitats and Species</p>	<ol style="list-style-type: none"> Development which may result in a likely significant effect on an internationally important site must be accompanied by sufficient evidence to enable the Council to make a Habitats Regulations assessment. Adverse effects should be avoided, or where this is not possible they should be mitigated, to make sure that the integrity of internationally important sites is protected. Development which may adversely affect the integrity of <i>internationally important sites</i> will only be permitted where there are no alternative solutions and there are imperative reasons of overriding public interest, and where compensatory provision has been made. This also applies to sites and habitats outside the designated boundaries that support species listed as being important in the designations of the internationally important sites. Development which may affect other designated sites of nature/geological conservation importance, or priority habitats and protected or priority species will be permitted where it can be demonstrated that there is no significant harm. Development which may cause significant harm will only be permitted in: <ul style="list-style-type: none"> <i>National sites (including Sites of Special Scientific Interest, National Nature Reserves)</i>: where there are no alternatives and where the reasons for and the benefits of development clearly outweigh the impact on the nature conservation value of the site and its broader contribution to the national network; <i>Local Sites (including Local Nature Reserves, Local Wildlife Sites and Local Geological Sites)</i>: where the reasons for and the benefits of development clearly outweigh the impact on the 	<p>No implications</p> <p>This provides protective policy for European designated sites and features for which they are designated.</p> <p>There are no impact pathways.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>nature conservation value of the site and its broader contribution to the ecological network; and</p> <ul style="list-style-type: none"> • <i>Priority Habitats</i>: where the reasons for and the benefits of development on balance outweigh the habitat's broader contribution to the ecological network. <p>For national and local sites, where it has been demonstrated that significant harm cannot be avoided appropriate mitigation or, as a last resort, replacement or other compensation will be required, to accord with the hierarchy of sites. The location of appropriate mitigation, replacement or other compensation will be targeted, using a sequential approach, as follows:</p> <ul style="list-style-type: none"> • Within the development site • In the immediate locality and / or within the core biodiversity area • Within a Nature Improvement Area within the Borough • Within a Nature Improvement Area elsewhere in the Liverpool City Region, and lastly, • Elsewhere. <p>Where significant harm resulting from development cannot be avoided, adequately mitigated or, as a last resort, compensated, then planning permission will be refused.</p> <p>4. Development proposals which affect sites of nature conservation importance, priority habitats and/or priority or legally protected species must be supported by an ecological appraisal showing details of avoidance, mitigation and/or compensation, and management.</p> <p>5. This policy also applies to sites which are recognised and designated during the Plan period as being of nature conservation</p>	

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	importance, including land provided as compensation under this policy.	
NH3: Development in the Nature Improvement Area	Development proposals within the Nature Improvement Area will be permitted where they complement the identified opportunities for habitat creation and / or habitat management, and are consistent with other policies in the Plan.	No implications This provides policy for development within the Nature Improvement Area There are no impact pathways.
NH4: The Sefton Coast and Development	<p>1. Development must not:</p> <ol style="list-style-type: none"> a) Increase the risk of tidal flooding or coastal erosion through their impact on coastal processes b) Impair the capacity of the coast to form a natural sea defence or adjust to changes in conditions without risk to life or property c) Adversely affect water quality including the quality of the dune aquifer and bathing water quality d) Adversely affect the integrity of sites of international nature conservation importance, taking into account appropriate mitigation, or as a last resort, compensation. Development which may have an adverse effect on internationally important nature sites will only be permitted where it can be demonstrated that there are both no alternatives and imperative reasons of overriding public interest and where compensatory provision has been made <p>2. Proposals which protect or enhance informal recreation, for new coastal flood defences, flood risk management measures, and essential landfall facilities for offshore installations will be supported, subject to other Plan policies.</p> <p>3. Within the Coastal Change Management Area, development must</p>	No HRA implications. This sets out policy for development within the Sefton Coast. Impact pathways are: <ul style="list-style-type: none"> • increased recreational pressure; • direct disturbance to features; • loss of supporting habitat; • water quality; • water quantity; and, • coastal squeeze This policy includes explicit protection for European designated sites within 1d.

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>take into account the risk of coastal change and the vulnerability of the development and must:</p> <ul style="list-style-type: none"> • Be located in accordance with a sequential approach to risk and vulnerability, • Be safe over its planned lifetime; and • Provide wider sustainability benefits. 	
<p>NH5:</p> <p>Protection of public open space, Countryside Recreation Areas and other outdoor sports and recreation facilities available to the public</p>	<p>1. The following types of development are acceptable in principle on public open space and other outdoor sports and recreation facilities which are available to the public:</p> <ol style="list-style-type: none"> a) Environmental improvements which enhance the site's environmental quality or green infrastructure benefits, including built facilities necessary for the use of the site; b) Other development proposals, where: <ul style="list-style-type: none"> • An assessment has been undertaken which has clearly shown the public open space or outdoor sports facilities to be surplus to Sefton's standards; or • The loss of public open space or outdoor sports facilities resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity <i>and</i> quality in a suitable location; • The development is for alternative sports and recreational provision, the needs for which clearly outweigh the loss. <p>2. Development in Countryside Recreation Areas should protect and enhance their informal recreation use, subject to other Plan policies.</p>	<p>No implications</p> <p>This provides policy for the protection of public open space and other outdoor sports and recreation facilities available to the public. This is important for the integrity of European designated sites as the loss of these facilities could lead to an increase in recreational pressure on European designated sites.</p>
<p>NH6:</p> <p>Urban golf courses</p>	<p>1. Development which enhances the recreation or environmental quality or other green infrastructure benefits of Bootle Golf Course will be acceptable in principle, including built facilities necessary to the golfing use of the site.</p> <p>2. Proposals for other development which sustains the viability and</p>	<p>HRA implications</p> <p>This sets out policy for the use and development of Urban golf courses. Development within Southport Old Links Golf Course and Hesketh Golf Course has</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>quality of a golfing facility at Bootle Golf Course, or for other development, will be considered on their merits, having particular regard to:</p> <ul style="list-style-type: none"> • The scale and type of development, • Enhancements to the golf and recreation facilities, • Highways and access issues, • Design, access and amenity considerations, and • Other plan policies. <p>3. Development which enhances the recreation or environmental quality or other green infrastructure benefits of Southport Old Links Golf course and protects or enhances the Local Wildlife Site will be supported, subject to other Plan policies.</p> <p>4. Development which enhances the recreation or environmental quality or other green infrastructure benefits of the part of Hesketh Golf Course in the urban area and protects or enhances the Site of Special Scientific Interest and Local Wildlife Site and Local Geological Site will be supported, subject to other Plan policies.</p>	<p>potential to negatively impact upon the integrity of European designated sites as they have potential to be supporting habitat to bird features.</p> <p>See Appendix 1 for TOLSE of these sites.</p> <p>It should be noted that Bootle Golf Course has been screened out.</p>
<p>NH7: Rural Landscape Character</p>	<p>Development in the rural area must protect, enhance or restore landscape character, as appropriate.</p>	<p>No implications.</p> <p>This sets out development policy for the character of the rural landscape.</p> <p>There are no impact pathways.</p>
<p>NH8: Minerals</p>	<p>1. To minimise the need for minerals extraction, the use of recycled, secondary and substitute materials will be encouraged. Mineral resources found to be present on sites intended for development will be expected to be extracted for beneficial use prior to development taking place, unless special circumstances can be demonstrated that justify proceeding without prior extraction.</p>	<p>HRA implications but screened out.</p> <p>This policy sets out development control for minerals extraction. This policy does not identify any location, type or quantity of mineral extraction.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<p>2. The Port of Liverpool and strategic rail freight links suitable for the movement of minerals will be safeguarded from inappropriate development. Proposals for non-mineral related development that may threaten the functioning of the wharfage of the Port of Liverpool, transport links or other infrastructure through which minerals are landed, processed (including secondary and recycled materials) and trans-shipped, will only be permitted where it can be demonstrated that:</p> <ul style="list-style-type: none"> • The infrastructure is not required for mineral purposes, and is unlikely to be so in the future; or • There is an overriding case for development taking place; • Equivalent alternative infrastructure capacity exists which is able to meet commercial needs. <p>3. Proposals for the exploration, extraction, storage, processing and distribution of minerals will be permitted if all of the following criteria are met:</p> <ul style="list-style-type: none"> • Adverse impacts relating to any criteria set out in Section 4 of this policy can be avoided or appropriately mitigated; • The developer must demonstrate the proposed location for the development is suitable, taking into account factors such as environmental, geological and technical issues; <p>Restoration and aftercare of sites will be implemented at the earliest opportunity and to an agreed timescale, to a standard and manner consistent with the agreed end use and the context of its surrounding area including its character, setting and landscape.</p> <p>4. Planning and environmental criteria to be taken into account when considering planning applications for minerals development are as follows:</p> <ul style="list-style-type: none"> • Amenity (e.g. dust, noise and vibration); • Air quality; • Lighting; 	<p>It provides basic protection for European designated sites.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
	<ul style="list-style-type: none"> • Visual intrusion into local setting and landscape; • Landscape character; • Traffic, including air and rail, and access; • Risk of contamination to land; • Soil resources; • The impact on best and most versatile agricultural land; • Flood risk and drainage; • Land stability; • Ecology including habitats, species and designated sites; • Heritage assets and their setting. 	
<p>NH9:</p> <p>Demolition or substantial harm to Designated Heritage Assets</p>	<p>1. Development which results in substantial harm to, or demolition of a designated heritage asset or its setting will not be permitted.</p>	<p>No implications</p> <p>This outlines policy for the demolition or substantial harm to Designated Heritage Assets.</p> <p>There are no impact pathways.</p>
<p>NH10:</p> <p>Works affecting Listed Buildings</p>	<p>1. Works affecting a Listed Building or its setting will only be permitted where:</p> <ul style="list-style-type: none"> a) Any alterations preserve the historic fabric and features of the building and/or its setting which are important to it. b) Any new additions are well designed and respect the special architectural or historic interest of the building. c) New development in the building's setting respects and conserves historic and positive existing relationships between the listed building and its surroundings. d) Development does not undermine the long term economic viability of the listed building or otherwise harm options for its long term maintenance. 	<p>No implications</p> <p>This outlines policy for works affecting listed buildings.</p> <p>There are no impact pathways.</p>
<p>NH11:</p>	<p>1. Development within conservation areas or affecting their setting will only be permitted where the proposal is of high quality design</p>	<p>No implications.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
<p>Development affecting Conservation Areas</p>	<p>and preserves or enhances the character or appearance of the conservation area or its setting. Changes of use within conservation areas should retain the mix of uses which are characteristic of the area.</p> <p>2. Development which affects features which positively contribute to a conservation area or its setting will only be permitted where:</p> <ul style="list-style-type: none"> a) Replacement or new features are of an appropriate style and use materials which are sympathetic to the age, architecture and features of the affected property b) Extensions, alterations or additions respect the layout and historic pattern of development in the conservation area affected c) Hard and soft landscape features which contribute to the historic value of the site to the conservation area are retained (including historically significant features from previous uses), and d) The character of historic boundary treatments, patterns of trees and planting in the conservation area are retained and enhanced. <p>3. Development which affects sites or features which do not contribute positively to the character or appearance of the conservation area, must enhance the site or conservation area.</p>	<p>This outlines policy for development affecting Conservation Areas.</p> <p>There are no impact pathways.</p>
<p>NH12: Development affecting Registered Parks and Gardens</p>	<p>1. Development within a Registered Historic Park or Garden or affecting its setting will only be permitted where the development relates well to the significant features of the historic park or garden, and is of high quality design, which is sympathetic to the special interest and function of the site.</p> <p>2. Development affecting the setting of a registered historic park or garden must maintain the aspects of its setting which contribute to its significance including views into and out of it, and the general relationship between the park or garden and the character of the surrounding landscape or townscape.</p>	<p>No implications.</p> <p>This outlines policy for development affecting Registered Parks and Gardens.</p> <p>There are no impact pathways.</p>

Heading	Policies	HRA Test of Likely Significant Effects (TOLSE) implications
<p>NH13:</p> <p>Development affecting archaeology and Scheduled Monuments</p>	<ol style="list-style-type: none"> 1. Development affecting, or within the setting of, Scheduled Monuments or nationally important archaeological sites will only be permitted where the development does not detract from the importance of the site. Historically significant relationships between features within the site and between the site and its surroundings must be retained. 2. Development which harms the archaeological interest of buildings, and development on, or within the setting of non-designated archaeological sites, will not be permitted unless the benefits of the proposals outweigh the loss and:- <ol style="list-style-type: none"> a) the nature and value of the archaeology is well understood, b) the development has been designed to minimise harm to the archaeology, and c) provision is made for recording, reporting and interpretation where appropriate. 	<p>No implications.</p> <p>This outlines policy for development affecting archaeology and Scheduled Monuments.</p> <p>There are no impact pathways.</p>
<p>NH14:</p> <p>Development affecting non-designated Heritage Assets</p>	<ol style="list-style-type: none"> 1. Development affecting a locally listed asset or its setting, or an undesignated heritage asset or its setting will be permitted where the aspects of the asset which contribute to its significance are conserved or enhanced. 	<p>No implications.</p> <p>This outlines policy for development affecting non-designate Heritage Assets.</p> <p>There are no impact pathways.</p>

APPENDIX 3: SCREENING TABLE FOR OTHER SITES ASSESSED BUT NOT TAKEN FORWARD INTO THE LOCAL PLAN

The table below sets out the HRA Screening of sites that were subject to an initial Screening exercise in 2014, but not taken forward into the Local Plan as formally allocated sites. The following impact pathways were considered: recreational pressure; other forms of disturbance; coastal squeeze; and loss of land outside of the European site boundary. Air quality is not a site-specific pathway (it is development cumulatively across Sefton that would need to be considered) and therefore it is discussed within the full Appropriate Assessment of the Local Plan rather than in this document. If a site is screened in it requires further consideration if taken forward for development. If it is screened out it does not require further consideration if taken forward for development.

This screening assessment was undertaken in 2014. As such, the site numbers and names are as they were then. It should be noted that these may have since changed. .

Sites highlighted in orange are screened in. Sites highlighted in green are screened out.

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ¹⁰³	Loss of land outside of SPA/Ramsar with value to designated species ¹⁰⁴	Initial Screening (stand alone)
Employment sites						
SR5A.3 (Land at Trinity Park, Orrell Lane, Bootle)	Employment	Located 5km from SPA/ Ramsar Unlikely, as this is an employment site and will not generate significant recreational activity	Habitat is hardstanding. Not considered suitable habitat.	No – too far from the coast for this to be a realistic impact pathway	Site is not considered suitable habitat.	Screened Out.
SR5A.4 (Former Sewage Works, Sefton Lane, Maghull)	Employment	Located 6km from SPA/ Ramsar Unlikely, as this is an employment site and will not generate significant recreational activity	Habitat is previously developed land, wasteland and scrub. Not considered suitable habitat.	No – too far from the coast for this to be a realistic impact pathway	Site is not considered suitable habitat.	Screened Out.
SR5A.5 (Land at Heysham Road, Bootle)	Employment	Located 4km from SPA/ Ramsar Unlikely, as this is an employment site and will not generate significant recreational activity	Habitat is previously developed ground surrounded by urban development. Not considered suitable habitat.	No – too far from the coast for this to be a realistic impact pathway	Site is not considered suitable habitat.	Screened Out.
SR5A.6 (Rear of Atlantic Industrial Estate, Bridle Road, Netherton)	Employment	Located 3.7km from SPA/ Ramsar Unlikely, as this is an employment site and will not generate significant recreational activity	Habitat is previously developed ground surrounded by urban development. Not considered suitable habitat.	No – too far from the coast for this to be a realistic impact pathway	Site is not considered suitable habitat.	Screened Out.
SR5A.10 (Land North of Slaidburn Crescent, Southport)	Employment	Located 100m from SPA/ Ramsar Unlikely, as this is an employment site and will not generate significant recreational activity	Habitat is a very small parcel totally surrounded by built up development (including intervening between the development site and the SAC/SPA/Ramsar site)	No – presence of intervening urban develop prevents this from arising	Site is not considered suitable habitat.	Screened Out.
Housing Sites						
Southport						

¹⁰³ Coastal management plans have been referenced from <http://mycoastline.org/documents/smp2/11a9PS.pdf>

¹⁰⁴ Reference has been made to ongoing work being undertaken by MEAS

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ¹⁰³	Loss of land outside of SPA/Ramsar with value to designated species ¹⁰⁴	Initial Screening (stand alone)
S009 (Land at Foul Lane, Southport)		Located approx. 4km from SPA/Ramsar and SAC with residential areas in between so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹⁰⁵	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and whooper swan. Aerial photographs indicated site is currently agricultural land so may be suitable for both species. The Lancashire Bird Atlas identifies that the parcel lies adjacent to a high density of records of wintering whooper swan which is particularly concentrated on farmland to the east of urban Sefton. A concentration of pink-footed goose records is also identified in this area. Non-breeding season bird surveys would be required to confirm their presence.	Screened In. If this site is selected it will need to be covered by a site specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population.
S026 Agricultural land at Segars Farm, Pinfold Lane, Ainsdale S027 Caravan storage at Segars Farm, Pinfold Lane, Ainsdale	591	Located immediately adjacent to SAC/SPA/ Ramsar and scale of proposed development is high, so potentially yes	Located immediately adjacent to SAC/ Ramsar so potentially yes. Bird species for which SPA and Ramsar are designated, and natterjack toads for which the Ramsar is designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹⁰⁶ Habitats for which the European sites are designated for could potential be impacted by mechanical abrasion as a result of	Landward of railway, so no	Located within an area of sensitivity for pink-footed goose and where records of the species exist according to the Lancashire Bird Atlas. Aerial photograph indicates current land use is grassland adjacent to sand dunes. Non-breeding season bird surveys would be required to confirm their presence. May also serve as supporting habitat for natterjack toads which could be found in habitat within several hundred metres of the Ramsar site boundary.	Screened In. If this site is selected it will need to be covered by a site-specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population.

¹⁰⁵ Definitions of 'significant' with regard to supporting habitat for SPA/Ramsar birds are not formally defined in guidance, but usual practice would be to regard any land parcel that regularly supported at least 1% of the SPA/Ramsar site population as 'significant'

¹⁰⁶ Definitions of 'significant' with regard to supporting habitat for SPA/Ramsar birds are not formally defined in guidance, but usual practice would be to regard any land parcel that regularly supported at least 1% of the SPA/Ramsar site population as 'significant'

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ¹⁰³	Loss of land outside of SPA/Ramsar with value to designated species ¹⁰⁴	Initial Screening (stand alone)
			increased recreational pressure.			
Formby						
S039/AS03 (Wood Hey, Southport Old Road, Formby)		Located approx. 1km from SAC, and relatively small scale. Whilst it may contribute cumulatively to recreational pressure it is unlikely to result in significant recreational pressure on a stand alone basis	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected	Landwards of railway and A565 so no	Located within an area of sensitivity for pink-footed goose but there are no records of the species exist according to the Lancashire Bird Atlas. Aerial photograph indicates current land use is short grassland, but it is an extremely small land parcel. Ultimately it is considered unlikely it will be of value for SPA/Ramsar species.	Screened Out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
S039/AS04 (Formby House Farm, Southport Old Road, Formby)		Located approx. 1km from SAC, and relatively small scale. Whilst it may contribute cumulatively to recreational pressure it is unlikely to result in significant recreational pressure on a stand alone basis	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected	Landwards of railway and A565 so no	Located within an area of sensitivity for pink-footed goose but there are no records of the species exist according to the Lancashire Bird Atlas. Aerial photograph indicates current land use is short grassland, but it is an extremely small land parcel. Ultimately it is considered unlikely it will be of value for SPA/Ramsar species.	Screened Out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
SR4.45 (Land at Range Farm, Formby)		Located 250m from SAC and 1km from SPA/Ramsar relatively accessible through footpath. So site specific recreational impact possible depending on number of dwellings.	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹⁰⁷ .	Possibly – building in a currently open and undefended (except by the dunes) area close behind the SAC may prevent (in part) the SAC shifting inland in response to rising sea levels inundating the seawards sandflats	Located within an area of sensitivity for pink-footed goose and whooper swan and where records of the species exist according to the Lancashire Bird Atlas. Aerial photographs indicated site is currently agricultural land (confirmed by surveys undertaken for the proponent in 2012) so may be suitable for both species. Non-	Screened In. If this site is selected it will need to be covered by a site specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population.

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Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ¹⁰³	Loss of land outside of SPA/Ramsar with value to designated species ¹⁰⁴	Initial Screening (stand alone)
				and dunes.	breeding season bird surveys would be required to confirm their presence.	
Crosby						
S093/SR4.24 Tanhouse Farm, Runnell's Lane, Thornton	57	Located 5km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹⁰⁸ .	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose. Aerial photographs indicate current land use is market farming/agriculture however it is understood that MEAS conducted a site visit late 2012 and found the site to be unsuitable	Screened Out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
S104/AS25 (Land at the Stables, Chapel Lane, Netherton)		Located 5.2km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat	No – too far from the coast for this to be a realistic impact pathway	Located in an area of sensitivity for pink-footed goose but with no records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land-use is grassland. On balance, site cannot be entirely ruled out.. It is noted that the site is located south of the construction of the Thornton to Switch Island Link. Non-breeding season bird surveys would be required to confirm their presence or absence.	Screened In. If this site is selected it will need to be covered by a site specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population. It is noted that this site is adjacent to the Thornton to Switch Island Link road. Upon completion, there is potential for birds to have been displaced as a result of the new road. Non-breeding season bird surveys would be required to confirm the

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Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ¹⁰³	Loss of land outside of SPA/Ramsar with value to designated species ¹⁰⁴	Initial Screening (stand alone)
						presence or absence of bird features.
S077 + S078 (Land to East and West of Virgins Lane, Crosby)		Located over 4km from SAC, so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹⁰⁹ .	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and within an area with a concentration of records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use is agriculture which is likely to be suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	Screened In. If this site is selected it will need to be covered by a site specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population
Sefton East						
S107/AS15 (Land South of the Crescent, Maghull)		Located 6.7km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No – too far from the coast for this to be a realistic impact pathway	Located in an area of sensitivity for pink-footed goose but with no records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land-use is grassland although a Phase 1 Survey in 2012 identified that the vegetation on site was fairly tall and rank which would render it unsuitable for SPA and Ramsar bird features. It is recommended that an update habitat survey is conducted to determine if the habitats on site remain unsuitable for pink footed goose and waders.	Screened Out. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects. Existing information (from a Phase 1 survey in 2012) identifies the habitats within the site as unsuitable to support pink-footed goose and waders. However, an update habitat survey is required to determine if habitats on the site remain unsuitable for these species. If this is the

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Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ¹⁰³	Loss of land outside of SPA/Ramsar with value to designated species ¹⁰⁴	Initial Screening (stand alone)
						case, no further action is required in relation to loss of supporting habitat. However, if habitats within the site are found to be suitable to support SPA and Ramsar bird species, this site will need to be subject to wintering bird surveys and a site specific HRA.
AS16 (Land adjacent to Maghull Station, Melling Lane, Maghull)		Located c. 7km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	No due to distance	No – too far from the coast for this to be a realistic impact pathway	No. Parcel is too urban and Phase 1 Habitat and NVC Survey in 2013 identified this site does not contain the necessary short grassland or arable habitats.	Screened Out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
S108/AS13 (Cheshire Lines Health Club, Sefton Lane, Maghull)		Located c. 7km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	No due to distance	No – too far from the coast for this to be a realistic impact pathway	No. Parcel consists essentially of hardstanding and scrub.	Screened Out. Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
S110, S111, S112/AS12/ (Land at West of Maghull, Between Bells Lane and South Mead)		Located approximately. 7.3km from SAC/SPA/Ramsar. However, the site is adjacent to a footpath that leads to Altcar Withins, which is supporting habitat for pink footed goose. Additionally the site is less than 1km from Lunt Meadows, with direct footpath access. Lunt	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted	No – too far from the coast for this to be a realistic impact pathway	Located in an area of sensitivity for pink-footed goose and with some records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land-use is arable. Non-breeding season bird surveys would be required to confirm their presence.	Screened In. If this site is selected, due to the site number of houses proposed and its proximity to supporting habitat, it will need to be covered by a site specific HRA accompanying the planning

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ¹⁰³	Loss of land outside of SPA/Ramsar with value to designated species ¹⁰⁴	Initial Screening (stand alone)
		Meadows supports Whooper swans (thereby extended their range south) and roosting lapwing. Recreational disturbance both within the area of the European designated sites and within supporting habitat outside of the European designated sites may be an issue.	a significant area of supporting habitat			application.
S124/AS14 (Land East of Northway, Lydiate)		Located 8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹¹⁰ .	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity area for pink-footed goose although with no records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use agriculture which is likely to be suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	Screened In. If this site is selected It will need to be covered by a site specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population
S131/SR4.49 Land South of Melling Lane, Maghull	111	Located 9km from SAC/SPA /Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹¹¹ .	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and within a broad area containing records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use is agriculture which is likely to be suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	Screened In If this site is selected It will need to be covered by a site specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population
S158 (Land off Bank Lane,		Located 10km from SAC/SPA/ Ramsar so only cumulative impact	Bird species for which SPA and Ramsar are designated may be	No – too far from the coast for this to be a	Located within an area of sensitivity for pink-footed goose and adjacent	Screened In.

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Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ¹⁰³	Loss of land outside of SPA/Ramsar with value to designated species ¹⁰⁴	Initial Screening (stand alone)
Melling)		when all development sites are considered together	present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹¹² .	realistic impact pathway	to a broad area with records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use is agriculture which is likely to be suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	If this site is selected it will need to be covered by a site specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population
S125 (Land off Millbank Lane, Kenyon's Lane, Maghull)		Located 8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹¹³ .	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity area for pink-footed goose although with no records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use agriculture which is likely to be suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	Screened In. If this site is selected It will need to be covered by a site specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population
S132 (Land Between the M58, Railway and Leeds Liverpool Canal, Melling)		Located 7.2km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹¹⁴ .	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose although with no records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use agriculture which is likely to be suitable habitat. It is noted that the site is located between urban development and a motorway so be less suitable supporting habitat. However, non-breeding season bird	Screened In. If this site is selected It will need to be covered by a site specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population

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Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ¹⁰³	Loss of land outside of SPA/Ramsar with value to designated species ¹⁰⁴	Initial Screening (stand alone)
					surveys would be required to confirm their presence or absence.	
S056 (Alt Road, Hightown)		Located approx. 500m from SAC and 1km from SPA/Ramsar, but the railway forms a barrier to access so only cumulative impact when all development sites are considered together	Aerial photographs indicate current land use is predominantly farmland. Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat The railway is likely to limit dispersion of natterjack toads from Ramsar site	No - an existing railway separates this land parcel from the SAC/Ramsar site.	Located in an area of sensitivity for pink-footed goose and where records of the species exist according to the Lancashire Bird Atlas, aerial photographs indicate current land-use is grassland with some scrub. Non-breeding season bird surveys would be required to confirm their presence.	Screened In. If this site is selected it will need to be covered by a site specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population
S058 (Land East of Hightown)		Around 1km from SAC but the railway forms a barrier to access so only cumulative impact when all development sites are considered together	Aerial photographs indicate current land use is predominantly farmland. Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat	No - an existing railway separates this land parcel from the SAC/Ramsar site.	Located in an area of sensitivity for pink-footed goose and where records of the species exist according to the Lancashire Bird Atlas, aerial photographs indicate current land-use is grassland with some scrub. Non-breeding season bird surveys would be required to confirm their presence.	Screened In. If this site is selected it will need to be covered by a site specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population
S068 (Whole of Land South East of Hightown)		Around 1km from SAC but the railway forms a barrier to access so only cumulative impact when all development sites are considered together	Aerial photographs indicate current land use is predominantly farmland. Bird species for which SPA and Ramsar are designated may be present and could be adversely	No - an existing railway separates this land parcel from the SAC/Ramsar site.	Located in an area of sensitivity for pink-footed goose and where records of the species exist according to the Lancashire Bird Atlas, aerial photographs indicate	Screened In. If this site is selected it will need to be covered by a site specific HRA accompanying the planning

Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ¹⁰³	Loss of land outside of SPA/Ramsar with value to designated species ¹⁰⁴	Initial Screening (stand alone)
			<p>affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat</p> <p>The railway is likely to limit dispersion of natterjack toads from Ramsar site</p>		current land-use is grassland with some scrub. Non-breeding season bird surveys would be required to confirm their presence.	application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population
AS17 (Land at Switch Island North of the M57 between Aintree, Maghull and Melling)	Employment uses (distribution)	Located 8km from SAC. Employment use will not lead to a recreational impact.	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹¹⁵ .	No – too far from the coast for this to be a realistic impact pathway	Located close to an area of sensitivity for pink-footed goose although not within an area with records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use is agriculture which is likely to be suitable habitat. Non-breeding season bird surveys would be required to confirm their presence.	Screened In. If this site is selected it will need to be covered by a site-specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population
S157/AS18 (Land North of Oriel Drive, Aintree)		Located 8km from SAC/SPA/ Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹¹⁶ .	No – too far from the coast for this to be a realistic impact pathway	Located close to an area of sensitivity for pink-footed goose although not within an area with records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use is agriculture which is likely to be suitable habitat. It is noted that the site is located between urban development and a motorway so may be less suitable supporting	Screened In. If this site is selected it will need to be covered by a site specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population

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					habitat. However, non-breeding season bird surveys would be required to confirm their presence or absence.	
S154/AS19 (Land West of Bulls Bridge Lane, Aintree)		Located 8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹¹⁷ .	No – too far from the coast for this to be a realistic impact pathway	Located close to an area of sensitivity for pink-footed goose although not within an area with records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use is agriculture which is likely to be suitable habitat. This potential is confirmed in a Phase 1 Habitat Survey from 2013, although the potential is identified as being fairly marginal. It is noted that the site is located between urban development and a motorway so may be less suitable supporting habitat. However, non-breeding season bird surveys would be required to confirm their presence or absence.	Screened In. If this site is selected it will need to be covered by a site-specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population
S153/AS20 (Land at Spencer's Lane, Melling)		Located 8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted	No – too far from the coast for this to be a realistic impact pathway	Located close to an area of sensitivity for pink-footed goose and within an area with records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use is agriculture which is likely to be suitable habitat. It is noted that the	Screened In. If this site is selected it will need to be covered by a site-specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site

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Proposed Site Allocation Number	No of Houses/ Employment use	Recreational Pressure	Other forms of disturbance	Coastal Squeeze ¹⁰³	Loss of land outside of SPA/Ramsar with value to designated species ¹⁰⁴	Initial Screening (stand alone)
			a significant area of supporting habitat ¹¹⁸ .		site is small and also located between urban development and a motorway so may be less suitable supporting habitat. However, non-breeding season bird surveys would be required to confirm their presence or absence.	bird population
SK001/AS21 (Land East of Bulls Bridge Lane, Aintree)		Located 8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	Bird species for which SPA and Ramsar are designated may be present and could be adversely affected/displaced if/when using the site which would be of importance for the SPA/Ramsar population if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat ¹¹⁹ .	No – too far from the coast for this to be a realistic impact pathway	Located close to an area of sensitivity for pink-footed goose and within an area with records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use is agriculture which is likely to be suitable habitat. It is noted that the site is located between urban development and a motorway so may be less suitable supporting habitat. However, non-breeding season bird surveys would be required to confirm their presence or absence..	Screened In. If this site is selected it will need to be covered by a site-specific HRA accompanying the planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population
SK002/AS23 (Land East of Aintree Racecourse, Wango Lane, Aintree)		Located 8km from SAC/SPA/Ramsar so only cumulative impact when all development sites are considered together	The site is dominated by areas of dense scrub, making it unsuitable for bird species of the SPA and Ramsar site.	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose and within an area with records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land use is dominated by scrub, making it unsuitable for bird species of the SPA and Ramsar site	Screened Out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects

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SR4.37 (Land at Sterrix Lane, Netherton)		Located 3km from SAC/SPA/ Ramsar so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No – too far from the coast for this to be a realistic impact pathway	Not located in an area of sensitivity for pink-footed goose or an area with a concentration of records of the species according to the Lancashire Bird Atlas.	Screened Out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
SR4.38 (Land Adjacent to Our Lady Queen of Pace School, Ford Close, Litherland)		Located 3km from SAC/SPA/ Ramsar so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No – too far from the coast for this to be a realistic impact pathway	Not located in an area of sensitivity for pink-footed goose or an area with a concentration of records of the species according to the Lancashire Bird Atlas.	Screened Out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
Other sites (various)						
S6(2a) (501-509 Hawthorne Road, Bootle)		Located 4km from SPA/Ramsar site so only cumulative impact when all development sites are considered together	Is essentially developed ground	No – distance too great and large amounts of urban development intervening	Is essentially developed ground	Screened Out
S6 (3a) (Heysham Road Industrial Estate)		Located 3.7km from SPA/ Ramsar – unlikely as this is an employment site	Is essentially developed ground	No – distance too great and large amounts of urban development intervening	Is essentially developed ground	Screened Out
S6 (3b) (Bootle Office Quarter)		Located 3.7km from SPA/ Ramsar – unlikely as this is an employment site	Is essentially developed ground	No – distance too great and large amounts of urban development intervening	Is essentially developed ground	Screened Out
CC2 (Priority		No	At present the type of development	No – too far from the	Located within an area of sensitivity	Screened In

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Zone for District Heating, Kew, Southport)			<p>is unknown. If the proposals include chimneys, there is potential for the development to effect flight lines of SPA and Ramsar bird species. District Heating does not normally involve wind energy.</p> <p>No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected</p>	coast for this to be a realistic impact pathway	for pink-footed goose and whooper swan. The Lancashire Bird Atlas identifies that the parcel lies adjacent to a high density of records of wintering whooper swan which is particularly concentrated on farmland to the east of urban Sefton. A concentration of pink-footed goose records is also identified in this area. However, aerial photographs indicate site is currently rank and overgrown which would make it unsuitable.	<p>This is dependent upon the type of development. If chimneys or wind turbines are placed within the site, then the development would require a project specific HRA to accompany any planning application to ensure the protection of the SPA and Ramsar sites.</p> <p>A habitat survey will be required to determine if habitats on site remain unsuitable for pink footed goose. If the habitat is suitable, to support SPA and Ramsar site bird features a suite of non-breeding bird surveys will be required.</p>
CC2 (Area of Search for Wind Energy, Ince Blundell)		No	Wind energy could potentially lead to significant birdstrike by interrupted flight lines. From review of aerial photography, the site appears to consist of grassland, therefore suitable as supporting habitat for SPA and Ramsar site bird features.	No – too far from the coast for this to be a realistic impact pathway	Located within an area of sensitivity for pink-footed goose. The Lancashire Bird Atlas identifies that the parcel lies adjacent to a high density of records of pink-footed goose which is particularly concentrated on farmland to the east of urban Sefton. Non-breeding season bird surveys would be required to confirm their presence.	<p>Screened In</p> <p>Wind energy could potentially lead to significant birdstrike by interrupted flight lines.</p> <p>A habitat survey will be required to determine if habitats on site remain unsuitable for pink footed goose. If the habitat is suitable, to support SPA and Ramsar site bird features a suite of non-breeding bird surveys will be required.</p>
Traveller sites						
TS1 (Land at the	6-8 caravans	Located 4km from SPA and Ramsar	Is essentially developed ground.	No – Distance too	Is essentially developed ground.	Screened Out

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corner of Linacre Lane/ Hawthorne Road, Bootle)		site so only cumulative impact when all development sites are considered together.		great and large amounts of urban development intervening.		Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
TS5 (Land at the Crescent, Maghull)	6-8 caravans	Located 6.7km from the SAC, SPA and Ramsar sites so only cumulative impact when all development sites are considered together.	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No –Too far from the coast for this to be a realistic impact pathway.	Located in an area of sensitivity for pink-footed goose but with no records of the species according to the Lancashire Bird Atlas. Aerial photographs indicate current land-use is grassland although a Phase 1 Survey in 2012 identified that the vegetation on site was fairly tall and rank which would render it unsuitable for SPA and Ramsar bird features. It is recommended that an update habitat survey is conducted to determine if the habitats on site remain unsuitable for pink footed goose and waders.	<p>Screened Out.</p> <p>Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects.</p> <p>Existing information (from a Phase 1 survey in 2012) identifies the habitats within the site as unsuitable to support pink-footed goose and waders. However, an update habitat survey is required to determine if habitats on the site remain unsuitable for these species. If this is the case, no further action is required in relation to loss of supporting habitat. However, if habitats within the site are found to be suitable to support SPA and Ramsar bird species, this site will need to be subject to wintering bird surveys and a site specific HRA.</p>

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TS21 (Land at Tattersall Road, Litherland)	6-8 caravans	Located 1.6 km from SPA, and Ramsar site and 2.3km from the SAC, so only cumulative impact when all development sites are considered together.	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No – Too far from the coast for this to be a realistic impact pathway.	Not located within an area sensitive for pink-footed goose or whooper swans. The site is 0.1 ha within an urban setting. Due to its size and location, it is not considered suitable to support bird features of the European sites.	Screened Out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
TS37(Kew Park & Ride Car Park, Southport)	6-8 caravans	Located approx. 4km from SPA, Ramsar and SAC sites with residential areas in between so only cumulative impact when all development sites are considered together	No evidence that bird species for which SPA and Ramsar are designated are using site and would be adversely affected.	No – Too far from the coast for this to be a realistic impact pathway.	Site is brownfield / tarmac car park and not suitable habitat.	Screened Out Due to no realistic pathway being identified. Whilst in-combination recreational pressures have been identified, this is associated with the overall quantum of development in Sefton rather than site-specific effects
TS38 (Pinfold Cottage Field, Northern Perimeter Road, Netherton)	6-8 caravans	Located approx. 5.1km from SPA, Ramsar and SAC sites with residential areas in between so only cumulative impact when all development sites are considered together. The site is located within Woodland Park, an area of recreational area. The loss of this recreational area may result in an increase in recreational pressure upon the European designated sites.	No evidence that bird species for which the SPA and Ramsar are designated are using the site and would be adversely affected.	No – Too far from the coast for this to be a realistic impact pathway.	Located in an area of sensitivity for pink-footed goose. Aerial photographs indicate current land-use is amenity grassland fringed by woodland and used as a recreation area. However, non-breeding season bird surveys would be required to determine their presence or likely absence.	Screened In. If this site is selected it will need to be covered by a site specific HRA accompanying any planning application to provide appropriate protection to the integrity of the SPA/Ramsar site bird population including an assessment of the impact of the loss of green open space.
TS39 (Promenade, Ainsdale)	6-8 caravans	Located partially within 5m of the SAC, 120m from the Ramsar site and 150m from the SPA. Due to the small size of the site (<0.5ha),	Yes. From aerial photography, the habitat on site appears to be grassland over sand dune habitats adjacent to semi-fixed to fixed dunes	Yes - As located between the SAC dune habitats and Pontins holiday park. There is	Yes - Evidence of former sand dune habitat on site, and adjacent to the SAC, so great crested newts could be affected; and within 120m of the	Screened In. If this site is selected it will need to be covered by a site specific

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		cumulative impact when all development sites are considered together.	within the SAC.	no barrier to dune retreat. As sea levels rise, dunes closer to the high tide line may be lost and dunes outside the SAC, Ramsar site could be of increasing importance.	Ramsar site, so natterjack toads could be affected. The site is within sight lines of the SPA, and Ramsar sites so has potential to disturb bird species of the SPA/ Ramsar site that may be using that habitat.	HRA accompanying any planning application to provide appropriate protection to the integrity of the SPA/SAC/ Ramsar sites and their bird, great crested newt and natterjack toad populations.
TS40 (Meadow Lane Green, Ainsdale)	6-8 caravans	Located 1.3km from the SAC, and Ramsar site and 2.3km from the SPA so only cumulative impact when all development sites are considered together.	Although a small area (approx. 1ha), bird species for which the SPA and Ramsar sites are designated may be present and could be adversely affected/ displaced if/ when using the site which would be of importance for the SPA and Ramsar site populations if non-breeding season bird surveys confirmed that this parcel constituted a significant area of supporting habitat. The site is located adjacent to Sandy Brook which flows into Downholland Brook, the River Alt and into the SPA, SAC and Ramsar sites, 10.5km downstream of the land parcel. Standard water quality controls will prevent adverse effects upon the European sites	No – Distance too great and large amounts of urban development intervening.	Located within an area of sensitivity for pink-footed goose and whooper swan. Aerial photographs indicate the site is currently grassland, close to the urban area, but also within a wider arable landscape so may be suitable for both species. Non-breeding season bird surveys would be required to determine their presence or likely absence.	Screened In. If this site is selected it will need to be covered by a site specific HRA accompanying any planning application to provide appropriate protection to the integrity of the SPA and Ramsar site bird populations.
TS45 (Mariners Road (grassed area), Blundellsands)	6-8 caravans	Located adjacent to the SPA, SAC and Ramsar sites. Due to the site's small size (approx. 0.2ha) only cumulative impact when all development sites are considered together.	Yes. From aerial photography the habitat on site appears to be sand dune habitats grading from semi-mobile to fixed dunes	Yes - There is no barrier to dune retreat. As sea levels rise, dunes closer to the high tide line may be lost and dunes outside the SAC and Ramsar	Yes - Sand dune habitats present within the site. As adjacent to the SAC and Ramsar site great crested newts and natterjack toads could be affected. The site is within sight lines of all	Screened In. If this site is selected it will need to be covered by a site specific HRA accompanying any planning application to provide appropriate protection to the

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				sites could be of increasing importance.	European sites so has potential to disturb bird species of the SPA and Ramsar sites that may be using the habitats.	integrity of the SPA, SAC, and Ramsar sites and their bird, great crested newt and natterjack toad populations.