

Habitats Regulations Assessment of the Revised East of Halewood Supplementary Planning Document

Knowsley Council

March 2020

Quality information

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Revision History

Revision	Revision date	Details	Authorized	Name	Position
0	08/04/19	For client review	JR	James Riley	Technical Director
1	13/05/2019	Amendments in Response to Client Comments	JR	James Riley	Technical Director
2	03/06/19	Amendment taking into account Natural England response to SPD consultation	JR	James Riley	Technical Director
3	28/02/2020	Amendment following further Natural England consultation dated 27/02/2020	JR	James Riley	Technical Director

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Table of Contents

1. Introduction	5
Scope of the Project.....	5
Legislation.....	5
The Layout of this Report.....	6
2. Methodology	7
Introduction.....	7
HRA Task 1: Test of Likely Significant Effects (TOLSE).....	7
HRA Task 2 – Appropriate Assessment (AA).....	8
HRA Task 3 – Avoidance and Mitigation.....	8
Assessment of Land Use Plans.....	9
The Scope.....	10
'In-Combination' Effects.....	11
Plans.....	11
3. Test of Likely Significant Effects (TOLSE)	14
Loss of functionally linked land.....	19
Recreational pressure.....	20
Water quality.....	20
Atmospheric pollution.....	21
4. Appropriate Assessment	22
Loss of functionally-linked land (alone and 'in-combination').....	22
Recreational pressure ('in-combination').....	23
Water quality ('in-combination').....	26
5. Conclusions & Recommendations	28
6. Appendices	29
Appendix 1: Map showing the East of Halewood SUE in relation to the European sites (SPAs, SACs, Ramsars) within 15km of Knowsley District.....	29
Appendix 2: Summary of the European sites located within 15km of the allocated site for the East of Halewood SUE, detailing their qualifying features, their conservation objectives and potential threats to site integrity.....	30

Figures

Figure 1: Four stage approach to Habitats Regulations Assessment (CLG, 2006).....	7
Figure 2: Tiering in HRA of land use plans.....	9

Tables

Table 1: List of European sites considered in Knowsley's Core Strategy HRA and the East of Halewood SPD HRA. Given are also the reasons why these sites were included in the Core Strategy HRA.....	10
Table 2: Housing to be delivered within other Merseyside authorities under most recent published proposals (housing numbers are subject to change).....	13
Table 3: Results of TOLSE of policies outlined in the revised East of Halewood SUE Supplementary Planning Document.....	14

1. Introduction

Scope of the Project

- 1.1 AECOM was initially appointed by Knowsley Council in 2016 to assist in undertaking a Habitats Regulations Assessment of the Consultation Draft Version of the Council's Supplementary Planning Document (SPD) for East of Halewood Sustainable Urban Extension (SUE), this being a site allocated in the adopted Local Plan Core Strategy. A report setting out the HRA of the Consultation Draft SPD was issued in 2016. This current report contains an updated Habitats Regulations Assessment (HRA) of the revised East of Halewood Supplementary Planning Document (SPD) put forward by Knowsley Council in 2019. The objective of the assessment is to identify any policies within the SPD that have potential to cause a Likely Significant Effect (LSE) or adverse effect on the Natura 2000 network and Ramsar sites (otherwise known as European sites or internationally designated sites), either in isolation or in combination with other plans and projects. If they do, then this report presents an appropriate assessment to determine whether measures are required to ensure no adverse effects on site integrity.
- 1.2 A Habitats Regulations Assessment was undertaken of Knowsley Council's adopted Core Strategy in 2012 and of the Main Modifications document in 2014. These HRA documents concluded that the Core Strategy would not result in adverse effects upon European sites alone or in-combination with other projects or plans. The allocation of a Sustainable Urban Extension (SUE) to the east of Halewood, including 1,100 dwellings to be delivered therein, was established in the Core Strategy and assessed in the accompanying HRA. The SPD builds on the adopted Core Strategy policies - in particular Policies SUE2 and SUE2b - to provide further design, development and infrastructure guidance which sets the framework for the preparation of a masterplan and planning applications.
- 1.3 However, the final version of the SPD allows for a maximum quantum of up to 1,500 dwellings to be delivered in the SUE, potentially exceeding the Core Strategy housing quantum by up to 400 dwellings. Therefore, Natural England advised that the HRA of the revised SPD cannot rely solely on the conclusions of the Core Strategy HRA and needs to undertake its own Appropriate Assessment discussing any implications of the additional 400 dwellings. At the same time, the Core Strategy HRA assesses the overarching planning document for Knowsley (delivering a much larger amount of development) 'in combination' with planned growth across the Liverpool City Region and therefore does provide useful guidance on the impact pathways to be assessed in the East of Halewood SPD HRA.
- 1.4 This document examines the entirety of the SPD to determine whether any of its specific policies relating to the quantum of housing, detailed design and delivery of the SUE would pose LSEs or, ultimately, adverse effects on the integrity of European sites.

Legislation

- 1.5 The need for HRA is set out in the Conservation of Habitats & Species Regulations 2017 (as amended). Its ultimate aim is to maintain or restore European sites that have a particular conservation interest. This aim relates to habitats and species, not the European sites themselves, although the sites have a significant role in delivering favourable conservation status. European sites can be defined as actual or proposed/candidate Special Areas of Conservation (SAC) or Special Protection Areas (SPA). It is also Government policy for sites designated under the Convention on Wetlands of International Importance (Ramsar sites) to be treated as having equivalent status to European sites. All European sites mentioned in this document are shown in Appendix 1. In order to ascertain whether the integrity of European sites will be affected, an Appropriate Assessment should be undertaken of the plan in question.
- 1.6 The HRA process applies the precautionary principle to protected areas. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. This is in contrast to the SEA Directive which does not prescribe how plan or programme proponents should respond to the findings of an environmental assessment; merely that the assessment findings (as documented in the 'environmental report') should be 'taken into account' during preparation of the plan or programme. In the case of the Conservation of Habitats & Species Regulations 2017 (as amended), plans and projects may still be permitted if there are no alternatives to them and there are Imperative Reasons of

Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.

Box 1: The legislative basis for Appropriate Assessment

Conservation of Habitats and Species Regulations 2017 (as amended)

The Regulations state that:

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

The Layout of this Report

Chapter 2 of this report explains the process by which the HRA has been carried out. Chapter 3 undertakes the Test of Likely Significant Effects (TOLSE) of the East of Halewood SPD 'alone' and 'in-combination'. Chapter 4 discusses the European sites and impact pathways taken forward to Appropriate Assessment.

2. Methodology

Introduction

- 2.1 This HRA has been carried out in the continuing absence of formal central Government guidance, although general EC guidance on HRA does exist¹. Ministry of Housing, Communities and Local Government (MHCLG) released a consultation paper on the Appropriate Assessment of Plans in 2006². As yet, no further formal guidance has emerged. However, Natural England has produced its own internal guidance³, as has the RSPB⁴. Both of these have been referred to in undertaking this HRA.
- 2.2 Figure 1 below outlines the stages of HRA according to current draft MHCLG guidance. The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the plan until no significant adverse effects remain. Details of the three HRA stages are discussed below.

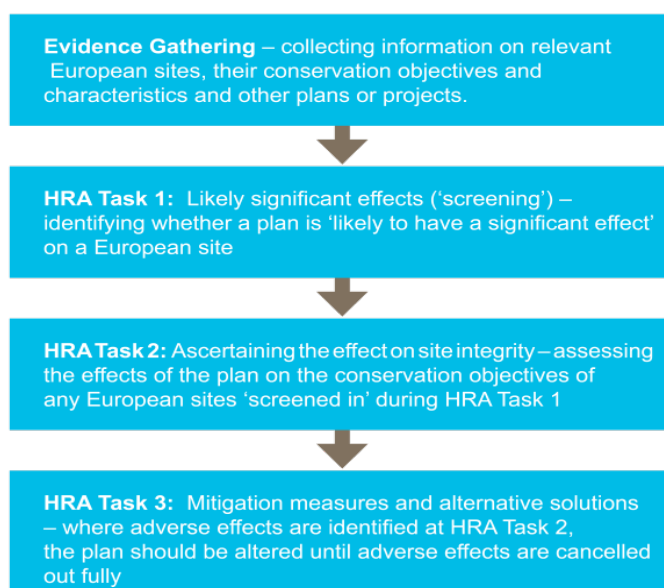


Figure 1: Four stage approach to Habitats Regulations Assessment (CLG, 2006)

HRA Task 1: Test of Likely Significant Effects (TOLSE)

- 2.3 Following evidence gathering, the first stage of any Habitats Regulations Assessment is a Test of Likely Significant Effects. This is essentially a risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is: *“Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites?”*
- 2.4 The objective is to ‘screen out’ those plans and projects that can, without any detailed appraisal, be said to be unlikely to result in significant adverse effects upon European sites, usually because there is no mechanism for an adverse interaction with a European site.
- 2.5 In evaluating significance, AECOM has relied on professional judgement as well as the results of previous stakeholder consultation regarding development impacts on the European sites considered within this assessment.

¹ European Commission. (2001) *Assessment of plans and projects significantly affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and 6(4) of the Habitats Directive*.

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

³ http://www.ukmpas.org/pdf/practical_guidance/HRGN1.pdf

⁴ Dodd, A.M., Cleary, B.E., Dawkins, J.S., Byron, H.J., Palframan, L.J. & Williams, G.M. (2007) *The Appropriate Assessment of Spatial Plans in England: a guide to why, when and how to do it*. The RSPB, Sandy.

HRA Task 2 – Appropriate Assessment (AA)

- 2.6 Where it is determined that a conclusion of ‘no likely significant effect’ cannot be drawn, the analysis has proceeded to the next stage of HRA known as Appropriate Assessment. Case law has clarified that ‘appropriate assessment’ is not a technical term. In other words, there are no particular technical analyses, or level of technical analysis, that are classified by law as belonging to appropriate assessment rather than determination of likely significant effects.
- 2.7 By virtue of the fact that it follows ToLSE, there is a clear implication that the analysis will be more detailed and one of the key considerations during Appropriate Assessment is whether there is available mitigation that would entirely address the potential effect. In practice, the appropriate assessment would take any policies or proposed allocations that could not be dismissed following the high-level ToLSE analysis and analyse the potential for an effect in more detail, with a view to concluding whether there would actually be an adverse effect on integrity (in other words, disruption of the coherent structure and function of the European site(s)).
- 2.8 The UK is no longer part of the European Union. However, as a precaution, this HRA assumes that European Court of Justice rulings on the HRA process may continue to be considered useful jurisprudence by the UK courts. A decision by the European Court of Justice⁵ concluded that measures intended to avoid or reduce the harmful effects of a proposed project on a European site may no longer be taken into account by competent authorities at the ToLSE stage of HRA. That ruling has been taken into account in producing this HRA.
- 2.9 Also, in 2018 the Holohan ruling⁶ was handed down by the European Court of Justice. Among other provisions paragraph 39 of the ruling states that ‘*As regards to other habitat types or species, which are present on the site, but for which that site has not been listed, and with respect to habitat types and species located outside that site, ... typical habitats or species must be included in the appropriate assessment, if they are necessary to the conservation of the habitat types and species listed for the protected area*’ [emphasis added]. Due account of this decision has been taken in this HRA, particularly regarding parts of the SUE site allocation (or land parcels directly adjacent to the scheme’s boundary) potentially being functionally linked to nearby European sites, such as the Mersey Estuary SPA and Ramsar.

HRA Task 3 – Avoidance and Mitigation

- 2.10 Where necessary, measures are recommended for incorporation into the Plan in order to avoid or mitigate adverse effects on European sites. There is considerable precedent concerning the level of detail that a Local Plan document needs to contain regarding mitigation for impact pathways on European sites (e.g. regarding recreational pressure). The implication of this precedent is that it is not necessary for all measures that will be deployed to be fully developed prior to adoption of the Plan, but the Plan must provide an adequate policy framework within which these measures can be delivered.
- 2.11 When discussing ‘mitigation’ for a Local Plan, one is concerned primarily with the policy framework to enable the delivery of such mitigation rather than the details of the mitigation measures themselves since a Local Plan document is a high-level policy document.
- 2.12 In any planning document, there are numerous policies for which there is a limit to the degree of assessment that is possible at the respective plan level. This is because either:
- The policy in question does not contain any specifics as to what will be delivered or where, so literally cannot be assessed in detail at the present level. In these cases, the appropriate assessment focusses on precautionary mitigation that can be included in the plan to ensure that whatever proposals come forward will not result in adverse effects on integrity; or
 - The nature of the potential impacts (notably lighting, noise and visual disturbance during construction, or loss of functionally-linked habitat) are very closely related to exactly how the development will be designed and constructed, or detailed development site-specific bird survey data, and therefore cannot be assessed in detail at the plan level. In these instances, the appropriate assessment focusses on the available mitigation measures, the extent to which such measures would be achievable and effective and whether an

⁵ People Over Wind and Sweetman v Coillte Teoranta (C-323/17)

⁶ Case C-461/17

adequate protective framework exists to ensure that the policy would not lead to an adverse effect on the integrity of any internationally designated sites.

- 2.13 On these occasions the advice of Advocate-General Kokott⁷ is worth considering. She commented that: *‘It would ...hardly be proper to require a greater level of detail in preceding plans [rather than planning applications] or the abolition of multi-stage planning and approval procedures so that the assessment of implications can be concentrated on one point in the procedure. Rather, adverse effects on areas of conservation must be assessed at every relevant stage of the procedure **to the extent possible on the basis of the precision of the plan. This assessment is to be updated with increasing specificity in subsequent stages of the procedure**’* [emphasis added].

Assessment of Land Use Plans

- 2.14 The level of detail in land use plans concerning developments that will be permitted under the plans is rarely sufficient to allow the fullest quantification of potential adverse effects. It is therefore necessary to be cognisant of the fact that HRAs for plans can be tiered, with assessments being undertaken with increasing specificity at lower tiers. This is in line with MHCLG guidance and court rulings 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. This ‘tiering’ of assessment is summarised in Figure 2.

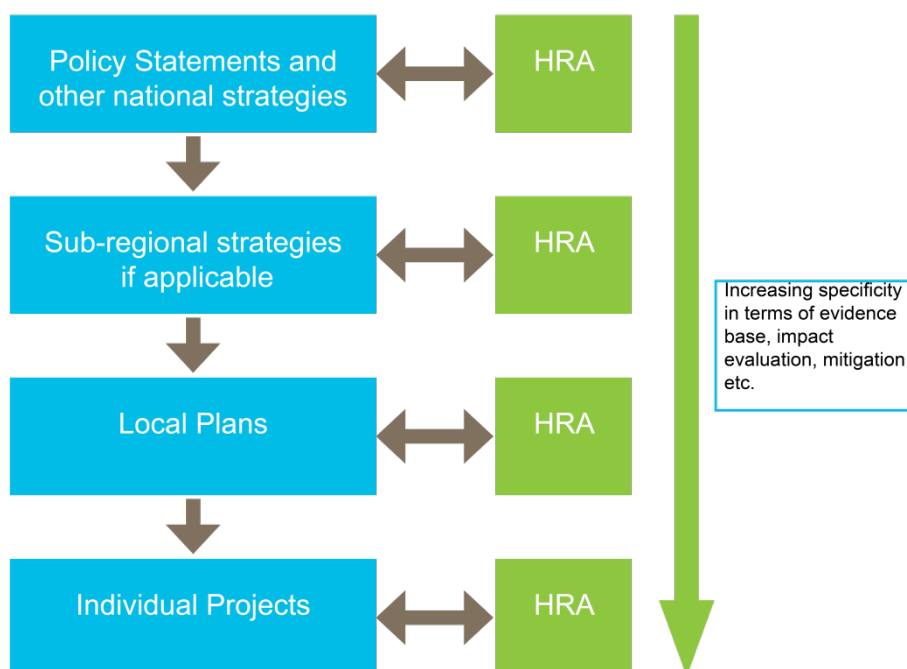


Figure 2: Tiering in HRA of land use plans

- 2.15 On these occasions the advice of Advocate-General Kokott⁸ to the European Court of Justice is worth considering. She commented that: *‘It would ...hardly be proper to require a greater level of detail in preceding plans [rather than planning applications] or the abolition of multi-stage planning and approval procedures so that the assessment of implications can be concentrated on one point in the procedure. Rather, adverse effects on areas of conservation must be assessed at every relevant stage of the procedure **to the extent possible on the basis of the precision of the plan. This assessment is to be updated with increasing specificity in subsequent stages of the procedure**’* [emphasis added].

⁷ Opinion of Advocate General Kokott, 9th June 2005, Case C-6/04. Commission of the European Communities v United Kingdom of Great Britain and Northern Ireland, paragraph 49 <http://curia.europa.eu/juris/document/document.jsf?docid=58359&doclang=EN>

⁸ Opinion of Advocate-General Kokott, 9th June 2005, Case C-6/04. Commission of the European Communities v United Kingdom of Great Britain and Northern Ireland, paragraph 49. <http://curia.europa.eu/juris/document/document.jsf?docid=58359&doclang=EN>

The Scope

2.16 Current guidance suggests that the following European sites be included in the scope of assessment:

- All sites adjacent to and within close proximity of the Scheme, and
- Other sites shown to be linked to the Scheme through a known “impact pathway” (discussed below).

2.17 Briefly defined, impact pathways are routes through which a change in activity within the Scheme area can lead to an effect upon a European site.

2.18 Table 1 summarises the European sites (and reasons for their inclusion) identified in the HRA of the Knowsley Core Strategy, for which Likely Significant Effects (LSEs) might result from implementing the Plan. The geographic locations of these sites are shown in Appendix 1, while more detailed background information on the European sites (including qualifying features, conservation objectives and threats / pressures to site integrity) is summarised in Appendix 2. For more information on the sites and possible impact pathways linking to Knowsley Council’s Core Strategy please consult the Core Strategy HRA⁹.

2.19 Due to the East of Halewood SUE SPD being a lower-tier planning document, this HRA focusses on assessing the impact pathways specific to the East of Halewood SPD (i.e. recreational pressure, loss of functionally-linked land, water quality and atmospheric pollution) in relation to the Mersey Estuary SPA and Ramsar site, which lies closest to the development boundary.

Table 1: List of European sites considered in Knowsley’s Core Strategy HRA and the East of Halewood SPD HRA. Given are also the reasons why these sites were included in the Core Strategy HRA.

European site	Reason for inclusion
Mersey Estuary SPA & Ramsar Sites	Located approximately 1.6km to the south of the Knowsley Borough Core Strategy Area and with hydraulic connections to it. Impact pathways were identified as recreational pressure and loss of functionally linked land.
Manchester Mosses SAC	Located adjacent to the M62, which is one of the principal routes between Knowsley and Manchester. The main impact pathway was identified as air quality.
River Dee & Bala Lake SAC	Identified as a source of drinkable water for Merseyside.
Sefton Coast SAC	Located within Merseyside, currently subject to recreational pressures.
Dee Estuary SAC SPA & Ramsar sites	Downstream of the River Dee which is identified as a source of drinkable water for Merseyside.
Mersey Narrows & North Wirral Foreshore Ramsar & SPA	Located within Merseyside, with hydraulic connections to the Mersey and currently subject to recreational pressures.
Ribble & Alt Estuaries SPA & Ramsar sites	Located within Merseyside with hydraulic connections to the Mersey and currently subject to recreational pressures. Also, potential water quality pathway through wastewater discharge from River Alt and via the River Mersey. The main impact pathway was identified as loss of functionally linked land.
Liverpool Bay SPA	Located immediately adjacent to Merseyside and is therefore a potential water quality pathway through wastewater effluent discharges as well as disturbance. The main impact pathway was identified as loss of functionally linked land.

⁹ URS (October 2012). Knowsley Borough Council Core Strategy Habitats Regulations Assessment. http://www.knowsley.gov.uk/pdf/SD11_CoreStrategyHabitatsRegulationsAssessment.pdf [accessed 09/04/19]

European site	Reason for inclusion
River Eden SAC	Haweswater Lake (to which the River is hydrologically connected) is likely to form part of the future water supply for Merseyside.
Martin Mere SPA & Ramsar site	Whilst this is located approximately 12.7km north of Knowsley, any renewable energy policies (e.g. wind turbines), alone or in combination have the potential to affect flight paths of qualifying bird species.

'In-Combination' Effects

2.20 The Knowsley Council Core Strategy HRA¹⁰ undertook a strategic assessment 'in-combination' of all housing and other development planned for Knowsley Council regarding the following impact pathways:

- Disturbance;
- Mechanical/abrasive damage and nutrient enrichment;
- Loss of functionally-linked land;
- Atmospheric pollution;
- Water quality; and,
- Water resources.

2.21 In practice, in combination assessment is of greatest relevance when the Local Plan would otherwise be screened out because its individual contribution is inconsequential. The Conservation of Habitats and Species Regulations 2017 (as amended) require that plans are not considered purely in isolation but 'in combination' with other projects and plans.

2.22 An 'in-combination' analysis has already been conducted as part of the strategic HRA undertaken for the Knowsley Core Strategy¹¹. However, some of the plans drawn up by other Merseyside authorities have been amended since 2016. Therefore, this HRA provides an updated overview of the most important plans that may act 'in-combination' in the following.

Plans

- Liverpool John Lennon Airport Masterplan to 2050 (March 2018). This project constitutes part of the Liverpool Local Plan but the Masterplan provides considerably more detail on some issues than the Local Plan policy. It is discussed in detail in chapter 5 of the Liverpool Local Plan HRA;
- 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 imminently), 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). This project constitutes part of the Liverpool Local Plan but the project Masterplan provides more detail on some issues than the Local Plan policy. It is discussed in detail in chapter 5 of the Liverpool Local Plan HRA;
- The Wales Spatial Plan (updated 2008);

¹⁰ URS (October 2012). Knowsley Borough Council Core Strategy Habitats Regulations Assessment. http://www.knowsley.gov.uk/pdf/SD11_CoreStrategyHabitatsRegulationsAssessment.pdf [accessed 09/04/19]

¹¹ URS (October 2012). Knowsley Borough Council Core Strategy Habitats Regulations Assessment. http://www.knowsley.gov.uk/pdf/SD11_CoreStrategyHabitatsRegulationsAssessment.pdf [accessed 09/04/19]
URS (June 2014). HRA of Changes to the Knowsley Local Plan Core Strategy following Examination in Public http://www.knowsley.gov.uk/pdf/SD29_KLPCS_ProposedModifications_HRA.pdf [accessed 09/04/19]

- North West England & North Wales Shoreline Management Plan 2 (SMP 22 Great Ormes Head to Scotland) (2011), incorporating: Great Ormes Head to Formby Point Shoreline Management Plan, and Formby Point to River Wyre Shoreline Management Plan;
 - Sefton Local Plan. Adopted April 2017;
 - Liverpool Local Plan (submitted May 2018);
 - Halton Draft Local Plan, the Delivery and Allocations Local Plan (incorporating revised Core Strategy Policies) January 2018;
 - Wirral Local Plan – emerging (this plan will include the strategic mixed used development known as Wirral Waters - a mixed use redevelopment of the area surrounding both West Float and East Float docks in Birkenhead, which obtained outline planning permission in 2012. The first stage in housing delivery, Wirral Waters One (500 dwellings), was granted detailed planning permission in 2018);
 - St. Helens Local Plan Proposed Submission Version;
 - Flintshire Unitary Development Plan (adopted 2011) and Flintshire Local Development Plan (emerging);
 - Denbighshire Local Development Plan (adopted 2013);
 - Wrexham Local Plan (submission stage);
 - Conwy Local Development Plan 2013;
 - Joint Merseyside & Halton Waste Local Plan Adopted 2013;
 - Greater Manchester Joint Waste Plan updated 2015;
 - West Lancashire Local Plan Adopted 2013;
 - Adopted Cheshire West and Chester Local Plan;
 - Proposed Submission Version of Warrington Local Plan (March 2019);
 - Part 1 North West River Basin District River Basin Management Plan (updated 2015);
 - Alt / Crossens Catchment Flood Management Plan (adopted 2009); and
 - United Utilities Water Resources Management Plan 2015.
- 2.23 For the purposes of this assessment, it is determined that the key plans that are likely to result in 'in-combination' effects with Knowsley Council's revised East of Halewood SUE SPD relate to the additional housing and commercial/industrial allocations proposed by other nearby authorities over the lifetime of the council's Core Strategy (and therefore also of the revised SPD document, see Table 2).

Table 2: Housing to be delivered within other Merseyside authorities under most recent published proposals (housing numbers are subject to change)

Local Authority	Total number of new dwellings under most recent published proposals
Liverpool	34,780 between 2013 and 2033 ¹²
Halton	9,930 between 2010 and 2028 ¹³ (subject to revision due to new Local Plan)
St Helens	13,680 between 2003 and 2027 ¹⁴
Wirral	12,500 between 2003 and 2027 ¹⁵
Sefton	11,520 between 2012 and 2030 ¹⁶
Warrington	18,900 between 2017 and 2037 ¹⁷
Total	101,310 dwellings

2.24 It should be noted that individually most of these plans have already been assessed as part of the 2019 Liverpool Local Plan HRA. Their inclusion in the current document serves the purpose of determining whether these policies may have an 'in-combination' effect with any policies contained within the revised East of Halewood SUE Supplementary Planning Document.

¹²Liverpool Local Plan Submitted for Examination in May 2018.

¹³ Halton Core Strategy Local Plan Adopted April 2013

¹⁴ St. Helens adopted Local Plan Core Strategy (2012). <https://www.sthelens.gov.uk/media/3385/sthelens-local-plan-core-strategy-october-2012.pdf>

At the time of writing (October 2018), St Helens were in the process of developing their New Local Plan.

¹⁵Proposed Submission Draft Core Strategy for Wirral (December 2012). A revised proposed submission draft is expected to be published for public comment in 2016

¹⁶Adopted Sefton Local Plan April 2017

¹⁷ Proposed Submission Version of Warrington Local Plan March 2019

3. Test of Likely Significant Effects (TOLSE)

3.1 The revised SPD Policies are tested for LSEs on qualifying features of relevant European sites in the following. The results of the TOLSE process are summarised in Table 3. Each of the policies are assessed both alone and ‘in-combination’ with other plans and projects. Due to the SPD being a lower-tier planning document, most impact pathways (except for the loss of functionally linked land) are screened out alone and are only concluded to have LSEs ‘in-combination’ (please see further explanation in the sections on impact pathways below).

Table 3: Results of TOLSE of policies outlined in the revised East of Halewood SUE Supplementary Planning Document.

Policy	Description	TOLSE Outcome*
EH1 Vision and Objectives	The East of Halewood masterplan and subsequent development proposals must demonstrate how they deliver the strategic objectives set out in the Vision and Development Objectives for the site (paragraphs 2.7 to 2.13 above).	This policy does not outline a quantum or location of residential / employment development. There are no impact pathways present and the policy is thus screened out.
EH2 East of Halewood Masterplan	<p>1) A masterplan will be prepared for the East of Halewood, which conform with the strategic objectives (EH1) and other requirements (EH3–EH12) set out in this document.</p> <p>2) The masterplan may be prepared (alone or jointly) by the Council, landowners, or developers. In line with the requirements of Local Plan Core Strategy Policies SUE2 and SUE2b, it must cover the entire area of the Sustainable Urban Extension site, and will need to be approved by the Council.</p> <p>3) The masterplan will be accompanied by technical evidence which identify constraints, potential impact, and proposed mitigation (including technical and layout responses) across the following themes: - a. Drainage and flood risk - b. Site levels - c. Ecology and arboriculture - d. Archaeology and heritage - e. Highways and transportation - f. Landscape and visual impact - g. Noise, vibration and air quality - h. Ground conditions - i. Utilities and infrastructure</p> <p>4) The masterplan, and subsequent planning applications, will be accompanied by written and illustrative material which demonstrates how proposals align with the requirements of this Supplementary Planning Document (or which explains and justifies any proposed departure).</p> <p>5) The masterplan, and subsequent planning applications, will demonstrate how phasing and sequencing of development will be facilitated across the entire site in a way which supports and secures the comprehensive development of the site.</p>	<p>This policy outlines the masterplan for development within the East Halewood SUE.</p> <p>This policy does not outline a quantum or location of residential / employment development. Furthermore, it makes the positive provision of ecological mitigation.</p> <p>There are no impact pathways present; this policy can be screened out</p>
EH3 Development parameters	1) Development will be planned and delivered in accordance with the uses and quanta set out in Table 4.1.	This policy outlines the positive provision of a minimum of 16 hectares of public open space. It also provides for a maximum of 1,500 new homes in the East Halewood SUE as set out in Table 4.1.

Policy	Description	TOLSE Outcome*
		<p>Given that the site allows for more housing than originally allocated in the Core Strategy (1,100 dwellings), Natural England advises that Likely Significant Effects on European sites cannot be excluded.</p> <p>Therefore, the policy is screened in for Appropriate Assessment in relation to the following impact pathways already identified at the Core Strategy level:</p> <ul style="list-style-type: none"> • Functionally linked land (alone and 'in-combination') • Recreational pressure ('in-combination') • Water quality ('in-combination').
EH4 Residential Development	<p>1) The SPD envisages that the site will deliver at least 1,100 dwellings. The maximum number of dwellings is expected to be 1,500 dwellings. The masterplan will be accompanied by written and illustrative material which demonstrates how the residential development of the site can be achieved without compromising on quality of design, landscaping or construction.</p> <p>2) The precise housing mix and typologies to be delivered will be established through the planning application process in response to prevailing market conditions, although the masterplan should be prepared in a way which provides for a range of different housing types and sizes being provided across the site.</p> <p>3) The provision of a minimum of 25% affordable housing is required across the site in accordance with Core Strategy Policy CS15; affordable housing must be fully integrated with and not distinguishable from the market housing provided, and must be secured and delivered alongside the market housing.</p>	<p>This policy outlines the provision of a maximum of 1,500 new homes in the East Halewood SUE.</p> <p>The policy contains the positive provision of achieving 'without compromising on ...landscaping...'</p> <p>Given that the site allows for more housing than originally allocated in the Core Strategy (1,100 dwellings), Natural England advises that Likely Significant Effects on European sites cannot be excluded. Therefore, the policy is screened in for Appropriate Assessment in relation to the following impact pathways already identified at the Core Strategy level:</p> <ul style="list-style-type: none"> • Functionally linked land (alone and 'in-combination')

Policy	Description	TOLSE Outcome*
		<ul style="list-style-type: none"> • Recreational pressure ('in-combination') • Water quality ('in-combination')
EH5 Public Open Space	<p>1) Open space should be provided in accordance with Policies CS8, CS21 and CS27 of the Core Strategy, and the requirements of the Developer Contributions Supplementary Planning Document and Playing Pitch Strategy. The final spatial extent, distribution and form of open spaces within the site or provided off site will be agreed with the Council as part of the masterplanning and planning application process.</p> <p>2) The masterplan should include a Green Infrastructure and Public Open Space Framework(s), with the design and use of open spaces an essential part of the overall development. Open spaces should perform a variety of functions including: offering green connectivity, enhancing biodiversity, Sustainable Drainage, attenuation and easements, and earth movement to facilitate construction, as well as providing an appropriate setting for the Listed gravestone within the site.</p> <p>3) Public Open Spaces within the site – and the green links and corridors that connect them – should have active development frontages.</p> <p>4) Open spaces must be proven to be practical and manageable in the long term and avoid creating an unsustainable maintenance burden.</p>	<p>This policy outlines the provision of Green Infrastructure and Open Space Frameworks. It also places emphasis on green connectivity and biodiversity.</p> <p>The policy does not outline a quantum or location of residential / employment development.</p> <p>There are no impact pathways present and the policy can thus be screened out.</p>
EH6 Access	<p>1) Vehicular access to the development will be from new junctions to the existing road network. Locations and general form for road access points will be established through the masterplanning process, and these must lead to a legible and attractive network within the site (see also Box EH9: Streets, Paths and Movement below). Final detailed design will be agreed at the planning application stage.</p> <p>2) Additional access points for pedestrians and cyclists which facilitate safe and convenient movement between the site, local amenities and facilities (in particular to shops, schools and public transport stops), and the rural area to the east will be provided. Principal pedestrian and cyclist connections should include across Baileys Lane (towards bus stops, Halewood Leisure Centre, Halewood Shopping Centre and railway station beyond), and at the junction of Lower Road and Greensbridge Road (for access to local shops and services at Church Road/Baileys Lane).</p>	<p>This policy relates to the provision of access to the East Halewood SUE. It provides for small changes to the existing road network.</p> <p>The policy does not outline a quantum or location of residential / employment development.</p> <p>There are no impact pathways present and the policy can thus be screened out.</p>
EH7 Utilities and Services	<p>1) The masterplan and subsequent development proposals should be prepared in consultation with utility providers. Potable water, gas, electricity, and telecommunications are understood to be available for the site, but network reinforcement for all utilities may be required. Detailed investigations which determine the existing capacity of utilities networks and their ability to accommodate new development will be required.</p> <p>2) Unless otherwise agreed with the Council and, where appropriate, United Utilities, the masterplan and subsequent planning applications shall deliver a comprehensive drainage strategy for the site that demonstrates a full assessment of the surface water hierarchy for each development parcel.</p> <p>3) The existing sewers, water mains and associated easements cross the site will need to be carefully considered, with diversions and easements being delivered where necessary.</p> <p>4) Development proposals will respond to part of the site lying within the Pentagon COMAH outer zone; schools, nurseries or residential institutions with a site area greater than 1.4 hectares may not be built in this part of the site, although general residential development is not restricted.</p> <p>5) The masterplan will be accompanied by a utilities plan which sets out the strategy for the maintenance, installation and delivery of services including electricity, gas, water supply, surface and foul water drainage, waste management, and broadband.</p>	<p>This policy outlines expectations relating to utilities and services within the East Halewood SUE. This includes provider engagement, surface water drainage provision, water supply, electricity supply, control of major accident hazards (COMAH), and utilities plan.</p> <p>The policy does not outline a quantum or location of residential / employment development.</p>

Policy	Description	TOLSE Outcome*
		There are no impact pathways present and the policy can thus be screened out.
EH8 Design Principles	<p>1) The development should include a number of character areas, to build distinctive neighbourhoods within the development which add richness and contribute to a sense of place.</p> <p>2) A broad range of green spaces, suitable for a variety of purposes, should be an integral part of the development and should provide safe, accessible walking and cycle connections within and beyond the site.</p> <p>3) Variations in density and style of building should respond to the site's transition from suburban to semi-rural surroundings, create a legible and permeable townscape, and contribute to making an interesting and stimulating place.</p> <p>4) The site should be linked into the wider Halewood area with active housing frontages (principally to Greensbridge Lane, Baileys Lane, Lower Road and Aldersgate Drive).</p> <p>5) The interface with Higher Road should be present a distinctive and positive gateway for the development, for Halewood and for Knowsley as a whole.</p> <p>6) A design framework should set out principles for key places within the site – such as gateways and main streets – to create a coherent sense of place and embed local distinctiveness. This can include "design code" type materials, providing clear guidance for character areas and key spaces and places;</p> <p>7) Design and layout proposals should respond appropriately to ecology, heritage, landscape, environmental resources and protection and other matters identified by the technical evidence set out in Box EH2, including an appropriate response to the Listed gravestone and its setting.</p> <p>8) The Council strongly encourages independent design review to be undertaken as part of the process of preparing the masterplan and planning applications.</p>	<p>This policy outlines key design principles for development within the East Halewood SUE. It contains the positive provision of considering ecology matters in proposals.</p> <p>The policy does not outline a quantum or location of residential / employment development.</p> <p>There are no impact pathways present and the policy can thus be screened out.</p>
EH9 Streets, paths and movement	<p>1) The masterplan should include an Access and Movement Framework/Plan, and a hierarchy for streets and spaces derived from this. This should promote low-speed family-friendly street environments;</p> <p>2) The internal route hierarchy will aid and encourage movement between the site and shops, services and facilities in Halewood, and between public open spaces both within and near to the site, by non-car modes.</p> <p>3) Ensure pedestrian and cycling connectivity where appropriate, into and throughout the site. Routes should be convenient and attractive, based on the Access and Movement Framework, and should be integrated with the green infrastructure networks across and around the site.</p> <p>4) Developers will be required to deliver the necessary off-site works and public transport infrastructure identified in the masterplan to enable accessibility to the site and to mitigate highways impacts arising from the development.</p>	<p>This policy outlines key expectations relating to access and movement within the East Halewood SUE. This includes pedestrian, cycling and equestrian routes.</p> <p>The policy does not outline a quantum or location of residential / employment development.</p> <p>There are no impact pathways present and the policy can thus be screened out.</p>
EH10 Landscape and Ecology	<p>1) Existing hedgerows and hedgerow trees should be retained and enhanced where possible. Lost trees should be replaced in accordance with the Council's 2-for-1 policy.</p> <p>2) Where possible, the network of drainage ditches and bank-side habitats and woodlands should be retained where possible and enhanced as semi-natural habitats. Field ponds and other water bodies should be retained as landscape features where appropriate.</p> <p>3) Development should be planned and built in a way which restricts the rate of surface water run-off. Surface water should be managed through a sustainable drainage scheme (comprising a network of attenuation features</p>	<p>This policy outlines landscape and ecology targets for the East Halewood SUE.</p> <p>The policy does not outline a quantum or location of residential / employment development.</p>

Policy	Description	TOLSE Outcome*
	<p>including swales, basins and rain gardens, enhanced through detailed design measures such as green roofs and grey water recycling).</p> <p>4) Landscape buffers should be used where appropriate for screening or framing views, and providing an appropriate setting for the Listed gravestone, including using native species in particular.</p> <p>5) In line with the advice in the Core Strategy HRA and to inform project-level HRA, bird surveys will be required to support planning applications within or adjacent to arable fields, so that the site's value (for example as foraging habitat) for birds using the Mersey Estuary SPA/Ramsar site can be judged.</p> <p>6) Informed by evidence at the masterplan and/or the planning application stage, development should provide ecological mitigation, including where appropriate within built structures (such as bat roosts and bird boxes), along with other appropriate measures to enhance biodiversity in the urban environment.</p>	<p>Notably, this policy contains the recommendation from the previous iteration of the East of Halewood SUE HRA: 'In line with the advice in the Core Strategy HRA, bird surveys will be required to support planning applications within or adjacent to arable fields'</p> <p>There are no impact pathways present and the policy can thus be screened out.</p>
EH11 Development Sustainability	<p>1) Development proposals should include:</p> <p>a. Delivery of energy efficiency through passive design and construction techniques, including through site layout and building design.</p> <p>b. Provision of renewable energy through microgeneration, including through sustainable design and construction.</p> <p>c. Efficient use of resources including through reuse of materials and effective use of land.</p> <p>d. Electric vehicle charging points.</p> <p>e. Where appropriate, evidence of the inclusion of a sustainable approach to water management.</p>	<p>This policy outlines sustainability targets for the East of Halewood SUE. 'Sustainable' development by definition will not have adverse effects on European sites.</p> <p>The policy does not outline a quantum or location of residential / employment development.</p> <p>There are no impact pathways present and the policy can thus be screened out.</p>
EH12 Planning Application Requirements	<p>1) Proposals for development within the East of Halewood site will only be granted planning permission where they are consistent with a single detailed masterplan for the site, approved by the Council. The masterplan will in turn need to accord with development plan policy and this SPD.</p> <p>2) Planning applications will demonstrate how phasing and sequencing of development will be facilitated across the entire SUE, securing the comprehensive development of the whole site.</p> <p>3) Planning application submissions should comply with the Council's latest validation checklist requirements. Specific additional requirements for any individual planning application will be provided through the pre-application process.</p> <p>4) The scale of development at East of Halewood means that applications are likely to need to be accompanied by an Environmental Statement. The Council can provide Screening and Scoping advice to applicants.</p> <p>5) Planning application submissions will need to include a Social Value Strategy, in accordance with the Council's Employment and Skills SPD.</p>	<p>This policy details the planning application requirements for the East of Halewood SUE. It contains the positive provision of requiring Environmental Statements with planning applications.</p> <p>The policy does not outline a quantum or location of residential / employment development.</p> <p>There are no impact pathways present and the policy can thus be screened out.</p>
EH13 Infrastructure Requirements	<p>1) The masterplan will set out coherent and co-ordinated approach to the provision of enabling strategic infrastructure both through direct delivery on-site and in the form of financial contributions secured via S106 planning obligations or S278 Highways Act agreements.</p> <p>2) The masterplan should be accompanied by an infrastructure delivery plan and viability appraisal which demonstrates that the entire proposed</p>	<p>This policy details the general infrastructure requirements in the East of Halewood SUE.</p>

Policy	Description	TOLSE Outcome*
	<p>development is capable of being realised over time, including identifying land ownership interdependencies and 'trigger points' to ensure that the required capacity will be delivered when required.</p> <p>3) All development will be required to contribute to the provision of the following site wide and off-site infrastructure that is considered to be fundamental to facilitating early and comprehensive delivery of the whole of the East of Halewood site:</p> <p>a. Provision of appropriate and proportionate contributions to infrastructure that is considered fundamental to facilitating the development of the East of Halewood as a whole.</p> <p>b. Delivery of essential highways work. The masterplanning process will include carrying out technical work to determine improvements to the surrounding highway network and also to ensure safe access to and from the site.</p> <p>c. Enabling access works to achieve a satisfactory form of development such as principal points of pedestrian and vehicular access to facilitate unrestricted access to and across the East of Halewood site.</p> <p>d. Delivery of required flood risk mitigation works subject to further technical studies and a Flood Risk Assessment.</p> <p>e. Delivery of a comprehensive surface water sustainable drainage solution for the whole site.</p> <p>f. Delivery of public open space and outdoor sports facilities, to deal with demand arising from the development, and to contribute towards place making objectives identified in the masterplan;</p> <p>g. Provision of contributions towards local infrastructure requirements caused/exacerbated by the proposed development:</p> <p>i. Provision of increased education capacity (by means to be agreed with the Council) to deal with need arising from new residential development.</p> <p>ii. Provision of health care facilities to deal with need arising from new residential development.</p> <p>iii. Improvements to local public transport services and/or passenger waiting facilities to deal with increased demand arising from the new development.</p> <p>h. Any remaining and viable developer requirements including provision of 25% affordable housing in accordance with Core Strategy Policy CS15.</p>	<p>The policy does not outline a quantum or location of residential / employment development.</p> <p>There are no impact pathways present and the policy can thus be screened out.</p>

*Policies in green do not have the potential for LSE on any European sites and are therefore screened out at this stage. LSEs for policies coloured in orange cannot be excluded and these are taken forward to Appropriate Assessment. While the housing allocation in the East of Halewood SUE was already addressed in the Knowsley Council's Core Strategy HRA, it proposes housing delivery of a maximum of 1,500 dwellings (as opposed to the 1,100 dwellings allocated in the Core Strategy). Therefore, this HRA reassesses the associated impact pathways.

Loss of functionally linked land

- 3.2 While most European sites have been geographically defined to encompass the key features that are necessary for coherence of their structure and function, and the support of their qualifying features, this is not always the case. A diverse array of qualifying species including birds, bats and amphibians are not confined to the boundary of designated sites.
- 3.3 For example, the highly mobile nature of both wild- and waterfowl species means that areas of habitat of crucial importance to the maintenance of their populations are outside the physical limits of European sites. Despite not being designated, such areas are still integral to the maintenance of the structure and function of European sites and, therefore, land use plans that may affect such areas need to be subject to further assessment.
- 3.4 Knowsley, the authority in which the SUE lies, is within relatively short distances of several European sites designated for waterfowl, including the Mersey Estuary SPA and Ramsar, the Liverpool Bay SPA and the Ribble and Alt Estuaries SPA and Ramsar. The species that most notably roost or forage in functionally linked land further inland include pink-footed goose (*Anser brachyrhynchus*) and golden plover (*Pluvialis apricaria*). The nearby SPAs are of major importance during the spring and autumn migration periods, especially for birds that move along the west coast of Britain. There is considerable interchange in the movements of wintering birds between the Morecambe Bay, the Mersey Estuary, the Dee Estuary and Martin Mere and the recently established roost at Simonswood Moss. Multiple research studies have

documented that pink-footed geese travel considerable distances (>8km) from roosting sites within the SPAs to their feeding grounds.

- 3.5 The East of Halewood SUE will involve the conversion of existing greenfield sites (some of which notably are parcels of agricultural land). If such allocated land was functionally linked to any of the surrounding European sites (i.e. it being used by >1% of the population of a relevant qualifying species), this would have the potential to result in adverse effects on site integrity. Therefore, LSEs of the East of Halewood SUE regarding the loss of functionally linked land cannot be excluded, both alone and 'in-combination'.
- 3.6 The 'in-combination' scope for this impact pathway is particularly important in the Merseyside region, due to the large amount of growth proposed in the wider area. While multiple authorities are progressing their Local Plans or Core Strategies, it is likely that different parcels of functionally linked land are simultaneously under pressure from development. This may magnify the potential implications of the loss of functionally linked land at the population-level of qualifying birds.
- 3.7 Overall, the following policies of the East of Halewood SPD are screened in for Appropriate Assessment both alone and 'in-combination' regarding the loss of land that is functionally linked to nearby European sites:
- Policy EH3 Development parameters (provides for a maximum of 1,500 dwellings in the SUE)
 - Policy EH4 Residential development (provides for a maximum of 1,500 dwellings in the SUE)

Recreational pressure

- 3.8 The Mersey Estuary SPA and Ramsar, at a distance of 2.5km the closest European site to the East of Halewood SUE (and the most likely site to be visited), is designated for its non-breeding overwintering and passage waterfowl, such as dunlin, black-tailed godwit and European golden plover. These qualifying species are sensitive to disturbance arising from recreational activities along the estuary (see Natural England's Site Improvement Plan¹⁸). Its relatively short distance of 2.5km to the SPA / Ramsar means that the SUE is likely to lie within the core recreational catchment (i.e. the catchment from which 75% of visitors to the estuary derive).
- 3.9 While the East of Halewood SUE is not considered to result in Likely Significant Effects (LSEs) alone (it only allocates a portion of the growth to be delivered in Knowsley), it needs to be considered in the context of the wider growth in the Merseyside region. Up to 2033 a significant number of residential dwellings is to be delivered by Merseyside authorities, including Knowsley Council. These amount to 101,310 dwellings across the authorities of Liverpool, Halton, St. Helen's, Wirral, Sefton, and Warrington. The lowest contribution to the overall housing growth is made by the Knowsley Core Strategy (8,100 dwellings), while the highest number of homes is contributed by the Liverpool Local Plan (34,780 dwellings). Therefore, the following policies of the East of Halewood SPD are screened in for Appropriate Assessment 'in-combination' regarding recreational pressure in the Mersey Estuary SPA / Ramsar:
- Policy EH3 Development parameters (provides for a maximum of 1,500 dwellings in the SUE)
 - Policy EH4 Residential development (provides for a maximum of 1,500 dwellings in the SUE)

Water quality

- 3.10 The East of Halewood SPD allocates a maximum of 1,500 dwellings (exceeding the 1,100 dwellings allocated in the SUE in the Core Strategy). The provision of residential development may primarily affect the water quality in European sites (especially in the Mersey Estuary SPA and Ramsar, the closest European site) through the discharge of treated sewage effluent. The site is designated for waterfowl species that are dependent on food resources in the intertidal sand- and mudflats. A net increase in nitrate loading associated with development in Wirral might lead to changes in invertebrate and plant communities within the SPA and Ramsar. Natural England's Supplementary Advice highlights that the SPA and Ramsar depends both on good water quality and sufficiently high dissolved oxygen concentrations¹⁹.
- 3.11 Historically, water quality issues relating to run off and waste water discharges in the Mersey catchment (including the upper reaches outside of Merseyside) have been a significant problem. The Mersey basin

¹⁸ Available at: <http://publications.naturalengland.org.uk/file/6470778514046976> [Accessed on the 28/02/2020]

¹⁹ <https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9005131&SiteName=mersey+estuary+Si&SiteNameDisplay=Mersey+Estuary+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=7> [Accessed on the 20/11/2019]

clean-up campaign has resulted in a much better water quality, with the Mersey now supporting a wide range of fish species (including migratory fish), porpoises, grey seals and octopus. However, the Knowsley Core Strategy HRA (the overarching planning document) concluded that there was still a potential for surface water run-off and waste water discharges to adversely affect the qualifying features of the Mersey SPA and Ramsar in-combination with plans put forward by adjacent authorities. Overall, due to the sensitivity of the Mersey Estuary SPA and Ramsar to changes in water quality, LSEs of the SPD 'in-combination' cannot be excluded and this impact pathway is screened in for Appropriate Assessment.

- 3.12 Overall, the following policies of the East of Halewood SPD are screened in for Appropriate Assessment 'in-combination' regarding recreational pressure in the Mersey Estuary SPA / Ramsar:
- Policy EH3 Development parameters (provides for a maximum of 1,500 dwellings in the SUE)
 - Policy EH4 Residential development (provides for a maximum of 1,500 dwellings in the SUE)

Atmospheric pollution

- 3.13 The residential development allocated in the East of Halewood SUE SPD has the potential to contribute to an increase in atmospheric pollution through an increased number of car journeys by local residents. The most important atmospheric pollutants include sulphur dioxide (SO₂), nitrous oxides (NO_x), ammonia (NH₃) and the total nitrogen deposition. Regarding the qualifying features of the Mersey Estuary SPA and Ramsar, all of which are waterfowl, the total atmospheric nitrogen deposition is the most relevant pollutant. However, atmospheric pollution impacts of residential development are only considered significant where its main associated commuter journeys (accounting for the largest proportion of Annual Average Daily Traffic – AADT) use roads within 200m of the designated site boundaries.
- 3.14 Most importantly, an examination of the critical total nitrogen loads given on the Air Pollution Information System (APIS) website indicates that an increase in nitrogen deposition is likely to have positive effects on most bird species. This is because nitrogen is one of the limiting nutrients in marine environments and an increase in this likely leads to higher productivity and higher availability of prey species. The HRA of the Liverpool Local Plan highlights that nitrogen deposition to littoral sediments might potentially be negative for four of the qualifying bird species: Great crested grebe *Podiceps cristatus* (due to potential algal blooms), wigeon *Anas Penelope*, black-tailed godwit *Limosa* and curlew *Numenius arquata* (all due to potential increase in sward height). However, such effects were considered to be very unlikely in the Knowsley Core Strategy HRA.
- 3.15 The HRA assessed the growth in the overarching Knowsley Core Strategy 'in-combination' with the other growth in the Merseyside region and concluded that there would be no effects (alone or 'in-combination') regarding atmospheric pollution on the Mersey Estuary SPA and Ramsar. The main reason for this was that the A561, the nearest significant commuter road, is located at a distance of approximately 2km inland from the SPA and Ramsar. This is considerably further than the 200m distance that is used to screen in atmospheric pollution effects of development proposals for Appropriate Assessments. Therefore, in line with the Knowsley Core Strategy, the East of Halewood SUE SPD will not result in LSEs on the Mersey Estuary SPA and Ramsar regarding atmospheric pollution. The SPD is screened out from Appropriate Assessment.

4. Appropriate Assessment

Loss of functionally-linked land (alone and 'in-combination')

- 4.1 The previous chapter identified that LSEs of the East of Halewood SUE regarding the loss of land that is functionally linked to nearby European sites cannot be excluded. The SUE would involve the conversion of agricultural land parcels to the east of Halewood, which might be used by SPA and Ramsar waterfowl. Some qualifying species, most notably pink-footed goose and to a lesser extent golden plover, might range great distances beyond European site boundaries. The SUE lies only approx. 2.5km from the nearest European site (the Mersey Estuary SPA and Ramsar), which is well within the distance that mobile waterfowl is considered to travel. The following paragraphs assess the impact pathway loss of functionally linked land (and its mitigation) in more detail.
- 4.2 The Core Strategy HRA undertook an assessment of this impact pathway drawing upon the Lancashire and Cheshire Fauna Society' Lancashire Bird Atlas²⁰. Regarding the East of Halewood SUE site allocation, it concluded that the '*East of Halewood SUE is located 2.5km north of the nearest European site: Mersey Estuary SPA/Ramsar site. It is also 13km south of the major pink-footed goose roost at Simonswood Moss...*' It further states that '*no mechanism has been identified for this site to operate in combination with other sites or projects/plans in raising a likely significant effect that has not already been considered in the submission HRA*' and that '*From scrutiny of photography vegetation on site appears to be pasture and arable and as such would be suitable for SPA birds. However, the site is not located in an area identified based on desk-study analysis as being of particular importance for pink-footed goose, whooper swan or Bewick's swan and therefore there is no indication that its development would result in a loss of supporting habitat.*'
- 4.3 For the assessment of the revised East of Halewood SUE SPD, the same bird atlas was used to identify whether the approximate location of the East of Halewood SUE is also a known roosting or feeding area for assemblages of passage and / or overwintering birds for which the nearby Mersey Estuary SPA and Ramsar is designated. However, examination of the winter distributions (2007/08-2010/11) of golden plover, ringed plover, dunlin (*Calidris alpina*), pintail (*Anas acuta*) and teal (*Anas crecca*) indicates that these species are not present in the approximate location of the SUE. Therefore, it seems unlikely that these species are using the area in question as supporting winter habitat.
- 4.4 A submitted pre-application enquiry for the SPD area included a non-breeding bird survey covering the 2017-2018 season. The year's survey data indicates that the area of the East of Halewood SUE is not used by significant numbers (i.e. >1% of the population) of any of the qualifying species the Mersey Estuary SPA and Ramsar is designated for. Surveys of the surrounding area (up to 1km distance from the SUE site boundary north of Greens Bridge Plantations) recorded significant numbers of golden plover and lapwing (*Vanellus vanellus*), but at a low frequency. However, based on wader and wildfowl data in the Lancashire Bird Atlas, the approximate area of the SUE is a possible breeding area for shelduck (*Tadorna tadorna*) and a potential roosting site for redshank in winter (both based on winter distribution records between 2007/08-2010/11).
- 4.5 Overall, it was recognised that '*Given its relative proximity to the Mersey Estuary SPA it is considered that bird surveys would be required to judge the value of the site (for example as foraging habitat) but it is not considered that the site is likely to be of importance for SPA birds.*'
- 4.6 In the previous HRA of the East of Halewood SPD it was outlined that in order to reflect the mitigation requirements for delivery of the Core Strategy (as expressed in the HRA of the Core Strategy), the aforementioned need for non-breeding bird survey:
- '*... is referred to within East of Halewood SUE SPD policy. By stating this within the SPD, it will make it clear for developers that there is a requirement for bird surveys to support any planning application for development within or adjacent to arable fields to determine use of the site by bird features of the SPA and Ramsar site to ensure no likely significant effects result.*'
- 4.7 This recommendation has now been worked into policy EH10 (Landscape and Ecology). However, in retrospect it is considered that this wording should be expanded to go beyond simply referencing the need for survey and, for clarity, should also identify that:

²⁰ <http://www.lacfs.org.uk/Lancs%20Birds.html>

- any survey should cover the entire SUE, rather than being undertaken for each development parcel in isolation;
 - If the survey indicates that the site is functionally-linked land, the detailed masterplan for the development will need to ensure that either the relevant land parcels are preserved, or that no net loss is achieved by creating new foraging/roosting habitat in an appropriate location (i.e. another area where the birds are known to roost) or enhancing existing habitat already used by SPA birds.
- 4.8 The site should be surveyed by an experienced ornithologist twice per month from September to March²¹. The two visits each month should be carried out at different tidal states (as these are known to influence non-breeding bird 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 between visits (this may 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.
- 4.9 During 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.
- 4.10 Analysis of the data would need to determine the total number of non-breeding SPA bird features and the total number of each species of non-breeding bird, to determine whether numbers on any visit exceeded 1% of the SPA population. The 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, if there is reason to believe it may be unrepresentative of regular use. However, it is considered by the authors of this Local Plan HRA that if numbers exceeding 1% of the SPA population are recorded on multiple (for example, 3 or more) visits in a single season, then regular use of that field by significant numbers of SPA waterfowl can be reasonably assumed.
- 4.11 It is recognised that this is too much information to be contained in a policy and should therefore be included in the supporting text to Policy EH10 Landscape and Ecology instead.
- 4.12 In response to this recommendation the following supporting text has been inserted into the SPD prior to box EH10:
- 4.13 *'5.18: With respect to required bird surveys noted in Box EH10, as recommended in the HRA of this SPD, these should cover the entire SUE (rather than being undertaken for development parcels in isolation); if the survey indicates that the site is functionally linked land of importance to the SPA/Ramsar sites, development will need to ensure land is preserved or that no net loss is achieved by creating new habitat in an appropriate location or enhancing existing habitat already used by SPA birds. Further advice regarding the parameters of bird surveys can be sought from MEAS.*
- 4.14 Moreover, there is new text for the EH12 policy box as follows:
- 4.15 *'5) Planning application submissions will need to include appropriate project-level HRA submissions and reflect the requirements of box EH10 of this SPD'.*

Recreational pressure ('in-combination')

- 4.16 The previous chapter identified that LSEs of the 1,500 residential dwellings allocated in the East of Halewood SPD (a higher amount than the 1,100 dwellings proposed in the Core Strategy) regarding recreational pressure in the Mersey Estuary SPA / Ramsar could not be excluded. Due to the relatively short distance between the SUE and the estuary it is likely that residents will use the European site for recreational

²¹ Natural England Technical Guidance Note TIN008: 'Assessing ornithological impacts associated with wind farm developments: surveying recommendations' provides further background on appropriate survey method requirements. While this guidance was specifically written for wind turbine projects and some aspects (e.g. vantage point surveys) are not necessarily relevant to other types of non-breeding bird survey, the guidance also provides advice on conventional non-breeding bird survey. Changes to the survey method may become necessary depending on (i) results and (ii) nature of proposed development in terms of airport expansion.

activities. The following paragraphs assess the impact pathway recreational pressure (and its mitigation) in more detail.

- 4.17 The closest part of the SPA and Ramsar to East of Halewood SUE is Hale Marsh and Decoy Marsh. This covers an area of 345ha and is flooded on high tides which reach up to the road (Town Lane) on some occasions. There is no access on to the marsh itself, which can be viewed from Withins Way from Hale Village and from the road between Hale and Halebank, and from the hide at Pickerings Pasture Local Nature Reserve (LNR). According to local knowledge²², good numbers of teal feed along the creeks on the marsh and flocks of waders may be seen roosting on the marsh (golden plover, lapwing, avocet, curlew, redshank, greenshank and dunlin). Flocks of up to several hundred Canada geese roost on the marsh during high tides, with black-tailed godwit and little egrets an increasing sight. In recent years a small number of Bewick and Whooper swans have stayed on the marsh during the winter.
- 4.18 To balance the proximity of the development site there are intervening major roads and there does not appear to be any current access to either marsh: the nearest access to the SPA and Ramsar site from a footpath is actually 1.5km to the south-west as the crow flies but over 3km by road/footpaths and requires traversing Hale²³. There is also no parking at this entry point. Moreover, neither marsh appears particularly safe for recreation. Recreational visitors in this area are more likely to use Pickerings Pasture LNR (outside the SPA) rather than trying to access the saltmarsh and mudflats of the SPA and Ramsar site.
- 4.19 Several empirical studies using correlational analyses have determined that recreation in winter leads to significant disturbance of qualifying bird species^{24 2526 27 28}. For example, Underhill et al. (1993) found that disturbance led to lower bird numbers in small sites and movement of birds from disturbed to less disturbed patches in large sites. There is therefore the potential for increased levels of recreation to reduce the proportion of time that waterfowl spend feeding, during a time of year when these birds face food shortages. The anticipated housing growth in the Liverpool City region as a whole is likely to increase visitor pressure in European sites, and particularly in and around estuaries. Generally, interview data with visitors of European sites show that 'water features' and 'open space' are among the most desired characteristics when choosing their destination. Furthermore, many of the European sites referred to in this report are likely to be within the catchment zones (i.e. within 7km) of most allocated residential sites. As such, new residents originating from across these authorities might be expected to visit these sites at least some of the time.
- 4.20 The recreational pressure potentially arising from the Knowsley Core Strategy, and in particular the East of Halewood SUE, was already discussed in detail in the Core Strategy HRA. Screening in the Core Strategy HRA, determined that the development policies within the Knowsley Core Strategy had the potential to result in direct disturbance to qualifying bird species of the Mersey Estuary SPA / Ramsar. While it was determined that Knowsley Council's contribution to the cumulative 'in-combination' recreational pressure in the European site was small compared to other surrounding authorities, this impact pathway was screened in for Appropriate Assessment.
- 4.21 Regarding adverse effects of recreational pressure on the Mersey Estuary SPA / Ramsar the HRA of the Core Strategy indicates that: '*...the southern boundary is within 1.6km. The Trans-Pennine trail follows the SPA for 5.5km from the Runcom Bridge west to Halebank and, although it then diverts from the estuary at Halebank, another footpath (the Mersey Way) lies adjacent to the estuary from Hale Head for 7km downstream...*'. The HRA recognised that footpaths at Hale Head would likely be used by Knowsley Council residents, and the area identified in the East of Halewood SPD is located only a short drive (approx. 10

²² <http://www.rspb.org.uk/groups/Liverpool/places/353268/>

<http://www.thefriendsofpickeringspasture.org.uk/winter-2015-16-pickerings-pasture.html>

²³ Various investigations into the habits of recreational visitors to nationally and internationally important wildlife sites have found that the majority of dog walkers and casual walkers are generally disinclined to walk very far to visit sites for recreation. For example, in one of the most thorough studies visitor surveys were conducted at the Thames Basin Heaths Special Protection Area. The study found that the average distance between the visitor's home postcode and Thames Basin Heaths SPA when arriving by foot was 0.8 km, with 75% of foot-based visitors living within a 0.9 km straight line distance from the visitor survey point. Other surveys show a similar broad pattern (e.g. Humber Estuary), since there is a natural limit as to how far a majority of people are prepared to walk to visit a particular site, even when it is large and appealing.

²⁴ 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.

²⁵ 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

²⁶ Footprint Ecology. 2010. Recreational Disturbance to Birds on the Humber Estuary.

²⁷ Kerbiriou et al. 2009. Tourism in protected areas can threaten wild populations; From individual response to population viability of the chough *Pyrrhocorax pyrrhocorax*. *Journal of Applied Ecology* 46: 657-665

²⁸ Remacha et al. 2016. Human disturbance during early life impairs nesting growth in birds inhabiting a nature recreation area. *PLoS ONE*. DOI:10.1371/journal.pone.0166748

minutes) away from this section of the Mersey Estuary SPA and Ramsar. Therefore, an increase in the number of residential dwellings, including those allocated in the East of Halewood area, is expected to lead to an increase in recreation pressure on the Mersey Estuary SPA. In order to mitigate recreation pressure on the SPA, the Core Strategy HRA recommended that *'...Knowsley Borough Council should work with the other Merseyside Authorities 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.'*

- 4.22 This access management framework is to be delivered through the Liverpool City Region (LCR) Visitor Management Strategy, which is currently being developed and not yet in effect. It is therefore to be noted that there is, at the present, no strategic mechanism addressing visitor use of the Mersey Estuary SPA and Ramsar in place. Assessing potential adverse effects of residential development on the integrity of relevant European sites will therefore need to be undertaken at the planning application stage of individual building projects (see policy recommendation in the next section and Table 3).
- 4.23 Finally, it was also advised that the LCR authorities should deliver a suite of strategically located Green Infrastructure. The HRA highlights that *'...While this is unlikely to be effective (or viable) with regard to water-based recreation, it may be possible and effective with regard to dog walking and other non-vehicular activities.'* Overall, the HRA concluded that if this programme of mitigation measures were implemented, there would be no adverse 'in-combination' effects of recreational pressure on the integrity of the Mersey Estuary SPA and Ramsar.
- 4.24 Considering that the mitigation commitment is considered appropriate to address the 'in combination' effect of 101,000 dwellings across the Liverpool City Region, there is no reason to consider that the further 400 dwellings added to the SPD will alter that conclusion. Given that the mitigation package proposed in the Knowsley Core Strategy HRA was endorsed by Natural England, it is important that the East of Halewood SPD reflects these recommendations to ensure that there are no adverse recreational pressure effects on the Mersey Estuary SPA / Ramsar. It is noted that the both policies EH3 and EH5 of the SPD provide for extensive Greenspace Infrastructure. For example, policy EH3 details that a minimum of 16 hectares of public open space will be provided on-site. Policy EH5 stipulates that *'Minimum open space should be provided in accordance with Policies CS21 and CS27 of the Core Strategy... as part of the masterplanning process. The masterplan should include a Green Infrastructure and Public Open Space Framework(s)... Open spaces should perform a variety of functions including: offering green connectivity, enhancing biodiversity, Sustainable Drainage, attenuation and easements, and earth movement to facilitate construction.'*
- 4.25 Providing residents with local, easily accessible greenspaces will absorb some of the daily recreational pressure arising from the East of Halewood allocation. However, it is likely that some residual recreational pressure on the Mersey Estuary SPA and Ramsar will remain, either due to visitors undertaking water-based activities or not wanting to consider alternative destinations.
- 4.26 To reflect that there is currently little evidence on the recreation patterns and visitor catchment area of the Mersey Estuary SPA / Ramsar (and other European sites in the vicinity) and in the continuing absence of a Visitor Management Strategy, we recommend the following amendment or similar wording is made to policy: Planning applications will have to ensure and demonstrate, through appropriate methodology (e.g. visitor surveys), that any housing proposals will not lead to Likely Significant Effects and, where such effects are identified, that these are appropriately mitigated to ensure there are no adverse effects on the integrity of nearby European sites through increased recreational pressure. Knowsley Council will be a signatory to the LCR Visitor Management Strategy, which will deliver mitigation of recreational pressure effects once it is implemented.
- 4.27 In response to this recommendation the following supporting text has been inserted into the SPD prior to box EH10:
- 4.28 *'5.19. The HRA of this SPD recommends additional planning application requirements to ensure that the potential impacts of the development at East of Halewood on European sites. These requirements are reflected in Box EH10 and relate to:*
- impacts on recreational pressure; this is ultimately anticipated to be dealt with within the LCR Visitor Management Strategy...'*
- 4.29 In addition, the proposed new text for the EH10 policy box is as follows:

- 4.30 *'7) Planning applications will have to ensure and demonstrate, through appropriate methodology (e.g. visitor surveys), that any housing proposals will not lead to Likely Significant Effects and, where such effects are identified, that these are appropriately mitigated to ensure there are no adverse effects on the integrity of nearby European sites through increased recreational pressure.*
- 4.31 Moreover, there is new text for the EH12 policy box as follows:
- 4.32 *'5) Planning application submissions will need to include appropriate project-level HRA submissions and reflect the requirements of box EH10 of this SPD'.*

Water quality ('in-combination')

- 4.33 The previous chapter identified that LSEs of the 1,500 residential dwellings allocated in the East of Halewood SPD (a higher amount than the 1,100 dwellings proposed in the Core Strategy) regarding water quality in the Mersey Estuary SPA and Ramsar could not be excluded. It was considered that impacts on water quality would primarily arise due to the discharge of treated sewage effluent into the estuary. The following paragraphs assess the impact pathway water quality (and its mitigation) in more detail.
- 4.34 Avoiding an adverse effect of site integrity is mainly the responsibility of water companies, which need to ensure that the future provision of sewage treatment infrastructure is adequate to ensure that sewage from additional development can be adequately processed. The Wastewater Treatment Works are required to comply with the headroom set out in their Environment Agency license, because exceedance of the thresholds is likely to result in elevated nutrient loadings and / or pollutant concentrations in local waterways receiving effluent discharge. Headroom is allocated as part of the Environment Agency's Review of Consents process that takes due consideration of the sensitivity of European sites. Remaining within the discharge permit therefore automatically ensures that there are no adverse effects on the integrity of European sites.
- 4.35 The potential impacts of development on water quality in the Mersey Estuary SPA and Ramsar were already discussed in the Core Strategy HRA. It identified that the water quality in the Mersey Estuary SPA / Ramsar might be affected by domestic and industrial wastewater discharge and industrial water abstraction. A study that was cited in the HRA highlighted the extent of water quality pressure on the Mersey Estuary SPA / Ramsar. According to this study the Mersey receives a significant amount of sewage effluent (~1,200,000 m³/day, which is only exceeded by the Thames and the Solent in Southampton).
- 4.36 Within the HRA it is stated that *'combined pollution pressure from run off and waste water discharges throughout the Mersey catchment (including the upper reaches outside of Merseyside) has been a significant historic pressure.* The HRA goes on to state that *'it is reasonable to identify the potential for an in-combination effect of the Knowsley Core Strategy (above the existing baseline) on the water quality pressures.* The in-combination effects of other development plans (e.g. the Mersey Gateway Port) were also considered. For example, the Mersey Gateway Port was found to likely contribute to harmful effects on the benthic and aquatic invertebrate communities.
- 4.37 Most importantly, the HRA recommended expanding policy CS27 (Planning for and Paying for New Infrastructure) to stipulate that the *'delivery of 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'.* Putting this policy into effect will require collaboration with external authorities, such as United Utilities and the Environment Agency. It was concluded that there would be no adverse impacts, alone or in-combination, on qualifying features of the Mersey Estuary SPA and Ramsar through wastewater discharge with this policy amendment in place.
- 4.38 It is noted that the East of Halewood SUE SPD already contains some mitigation wording addressing the water quality impact pathway. This wording is mainly contained in the policies EH12 (Planning Application Requirements) and EH13 (Infrastructure Requirements). For example, policy EH12 outlines important planning application requirements on the East of Halewood site, detailing that *'Planning applications will demonstrate how phasing and sequencing of development will be facilitated across the entire SUE, securing the comprehensive development of the whole site'.* In policy EH13 infrastructure details that all development needs to provide are set out. It stipulates that all developments need to ensure *'provision of appropriate and proportionate contributions to infrastructure that is considered fundamental to facilitating the development of the East of Halewood as a whole'.* This is considered positive policy wording regarding the mitigation of water quality impacts, effectively ensuring that residential development is delivered in phases and the appropriate infrastructure (e.g. wastewater treatment capacity) is in place.

- 4.39 However, to better align the East of Halewood SPD with the Core Strategy and to ensure explicitly that there will be no adverse effects on the water quality in the Mersey Estuary SPA and Ramsar, we recommend an addition to the wording in Policy EH12. This should make specific reference to residential sites only being delivered once it is established that there is sufficient headroom in existing wastewater discharge permits to accommodate the new development.
- 4.40 In response to this recommendation the following supporting text has been inserted into the SPD prior to box EH10:
- 4.41 *'5.19. The HRA of this SPD recommends additional planning application requirements to ensure that the potential impacts of the development at East of Halewood on European sites. These requirements are reflected in Box EH10 and relate to:...*
- impacts on sufficiency of wastewater treatment facilities, which will require liaison with partner agencies'*
- 4.42 In addition, the proposed new text for the EH10 policy box is as follows:
- 4.43 *'8) Planning applications will have to show that there is sufficient headroom in the discharge permits of relevant wastewater treatment facilities to process the sewage from new housing, to ensure that there are no adverse effects on European sites. Such additional wastewater treatment capacity will have to be determined and delivered through interaction with United Utilities and the Environment Agency'.*
- 4.44 Moreover, there is new text for the EH12 policy box as follows:
- 4.45 *'5) Planning application submissions will need to include appropriate project-level HRA submissions and reflect the requirements of box EH10 of this SPD'.*






5. Conclusions & Recommendations

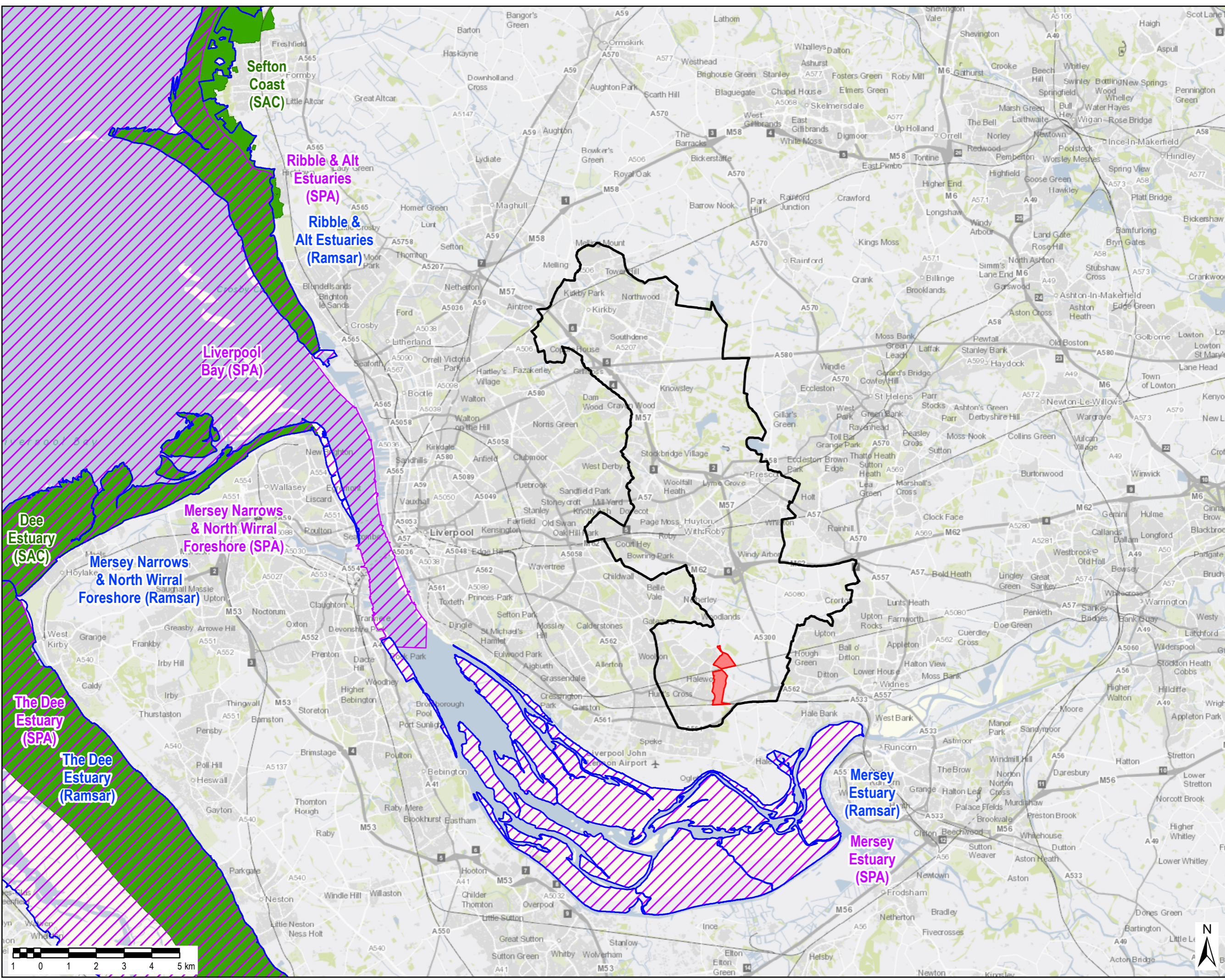
- 5.1 In conclusion, the SPD for East of Halewood SUE sets out Knowsley Council's requirements for development within the SUE. It offers detail on the development quantum, and further outlines the development control and management policies specific to this strategic site. This SPD allocates the East of Halewood SUE and specifies residential development beyond that defined within the Core Strategy and assessed in its HRA (a maximum of 1,500 dwellings in contrast to the Core Strategy's 1,100 dwellings).
- 5.2 While the impact pathway atmospheric pollution was screened out at the TOLSE stage, the impact pathways loss of functionally linked land, recreational pressure and water quality were taken forward into Appropriate Assessment due to the following policies contained in the SUE SPA:
- Policy EH3 Development parameters
 - Policy EH4 Residential development
- 5.3 Regarding the impact pathway loss of functionally linked land, in line with the Core Strategy HRA, LSEs could not be excluded. The SUE encompasses parcels of agricultural land that lie within the distances that qualifying water- and wildfowl (especially pink-footed goose and golden plover) range from European sites. While historical data show few records of relevant species in the approx. location of the SUE, bird surveys will be required to confirm the presence or absence of SPA and Ramsar birds. The SPD already includes a requirement for bird survey, but it is recommended that further wording relating to details of bird surveys is inserted into the supporting text of Policy EH10 Landscape and Ecology and EH12 Planning Application Requirements (see Chapter 4 for details on the wording as inserted into the SPD).
- 5.4 Regarding the impact pathway recreational pressure, in line with the Core Strategy HRA, LSEs of the East of Halewood SUE SPD cannot be excluded. The SUE lies only approx. 2.5km from accessible sections of the Mersey Estuary SPA and Ramsar and is likely to be a focal point for recreational activities of local residents. In order to ensure that recreational pressure is addressed at the project level (particularly in the continuing absence of an overarching recreation strategy in the wider Merseyside region), wording was inserted into Policy EH10 Landscape and Ecology and EH12 Planning Application Requirements setting out the need for planning applications to ensure and demonstrate, through appropriate methodology (e.g. visitor surveys), that any housing proposals will not lead to adverse effects and, where such effects are identified, that these are appropriately mitigated to ensure there are no adverse effects on the integrity of nearby European sites through increased recreational pressure. It also includes reference to the emerging the LCR Visitor Management Strategy as a long-term solution, which will deliver mitigation of recreational pressure effects once it is implemented.
- 5.5 Regarding the impact pathway water quality, in line with the Core Strategy HRA, LSEs on the Mersey Estuary SPA and Ramsar cannot be excluded. Policy EH12 Planning Application Requirements already suggests that appropriate infrastructure to serve new development should be in place, but additions have been made to this policy and Policy EH10 Landscape and Ecology noting that prior to the delivery of any housing, planning applications will have to show that there is sufficient headroom in the discharge permits of relevant wastewater treatment facilities to process the sewage from new housing, to ensure that there are no adverse effects on European sites.
- 5.6 Given the amendments made to Policy EH10 (and its supporting text) and Policy EH12 of the SPD it is considered that the SPD sets out a suitable policy framework to ensure that delivery of the development will not result in adverse effects on the integrity of European sites, most notably the Mersey Estuary SPA and Ramsar site.

6. Appendices

Appendix 1: Map showing the East of Halewood SUE in relation to the European sites (SPAs, SACs, Ramsars) within 15km of Knowsley District.

THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT

- LEGEND**
-  Knowsley District
 -  East of Halewood Urban Extension
 -  Ramsar
 -  Special Protection Area (SPA)
 -  Special Area of Conservation (SAC)



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Purpose of Issue **DRAFT**

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Project Title **KNOWSLEY HRA**

Drawing Title **SUPPLEMENTARY PLANNING DOCUMENT: EAST OF HALEWOOD SUSTAINABLE URBAN EXTENSION**

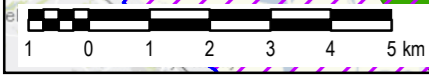
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Appendix 2: Summary of the European sites located within 15km of the allocated site for the East of Halewood SUE, detailing their qualifying features, their conservation objectives and potential threats to site integrity.

Site Name	Qualifying Features	Conservation Objectives	Potential threats to site integrity
Mersey Estuary SPA	<p>Qualifies under Article 4.1 of the Directive by supporting the following Annex I species:</p> <p>Wintering:</p> <ul style="list-style-type: none"> • Pintail <i>Anas acuta</i> • Eurasian teal <i>Anas crecca</i> • Wigeon <i>Anas penelope</i> • Dunlin <i>Calidris alpina</i> • Golden plover <i>Pluvialis apricaria</i> • Shelduck <i>Tadorna tadorna</i> • Redshank <i>Tringa totanus</i> <p>Passage:</p> <ul style="list-style-type: none"> • Ringed plover <i>Charadrius hiaticula</i> • Redshank <i>Tringa totanus</i> 	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features • The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, • The distribution of the qualifying features within the site. 	<ul style="list-style-type: none"> • Recreational pressure • Disturbance (recreational and non-recreational) • Coastal squeeze and loss of functionally linked supporting habitats • Aquatic pollution from WwTW, surface, runoff and construction related, sedimentation • Atmospheric pollution
Mersey Estuary Ramsar	<p>Ramsar Criterion 5</p> <ul style="list-style-type: none"> • Supports 89,576 waterfowl (peak mean counts in winter) <p>Ramsar Criterion 6</p> <ul style="list-style-type: none"> • Regularly supports 1% of the individuals in a population of 	Not Applicable	Not Applicable

	<p>one species or subspecies of waterbird</p> <ul style="list-style-type: none"> • Supports internationally important numbers of common shelduck, black-tailed godwit and common redshank (peak counts in spring/autumn) • Supports internationally important numbers of Eurasian teal, Northern pintail and dunlin (peak counts in winter) 		
<p>Sefton Coast SAC</p>	<p>Supporting the following:</p> <p>Annex I habitats:</p> <ul style="list-style-type: none"> • Embryonic shifting sand dunes • Shifting dunes along the shoreline with marram <i>Ammophila arenaria</i> (“white dunes”) • Fixed dunes with herbaceous vegetation (“grey dunes”) • Dunes with creeping willow <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>) • Humid dune slacks: 	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site. 	<ul style="list-style-type: none"> • Coastal squeeze • Air pollution: Risk of atmospheric nitrogen deposition • Inappropriate scrub control • Invasive species • Hydrological changes • Public access / disturbance • Inappropriate coastal management • Fisheries: Commercial marine and estuarine • Change to site conditions • Shooting / scaring

	<ul style="list-style-type: none"> • Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>) <p>Annex II species:</p> <ul style="list-style-type: none"> • Petalwort <i>Petalophyllum ralfsii</i> • Great-crested newt <i>Triturus cristatus</i> 		
<p>Ribble and Alt Estuaries SPA</p>	<p>Qualifies under Article 4.1 of the Directive by supporting the following Annex I species:</p> <p>Breeding:</p> <ul style="list-style-type: none"> • Common Tern <i>Sterna hirundo</i>; • Ruff <i>Philomachus pugnax</i>; • Lesser Black-backed Gull <i>Larus fuscus</i> <p>Over winter:</p> <ul style="list-style-type: none"> • Bar-tailed Godwit <i>Limosa lapponica</i>; • Bewick's Swan <i>Cygnus columbianus bewickii</i>; • Golden Plover <i>Pluvialis apricaria</i>; • Whooper Swan <i>Cygnus cygnus</i>; • Black-tailed Godwit <i>Limosa limosa islandica</i>; • Dunlin <i>Calidris alpina alpina</i>; • Grey Plover <i>Pluvialis squatarola</i>; • Knot <i>Calidris canutus</i>; 	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely; • The population of each of the qualifying features; and, • The distribution of the qualifying features within the site. 	<ul style="list-style-type: none"> • Coastal squeeze • Air pollution: Risk of atmospheric nitrogen deposition • Inappropriate scrub control • Invasive species • Hydrological changes • Public access / disturbance • Inappropriate coastal management • Fisheries: Commercial marine and estuarine • Change to site conditions • Shooting / scaring

	<ul style="list-style-type: none"> • Oystercatcher <i>Haematopus ostralegus</i>; • Pink-footed Goose <i>Anser brachyrhynchus</i>; • Pintail <i>Anas acuta</i>; • Redshank <i>Tringa totanus</i>; • Sanderling <i>Calidris alba</i>; • Shelduck <i>Tadorna tadorna</i>; • Teal <i>Anas crecca</i>; • Wigeon <i>Anas penelope</i>. <p>On passage:</p> <ul style="list-style-type: none"> • Ringed Plover <i>Charadrius hiaticula</i>; • Sanderling <i>Calidris alba</i> 		
Ribble and Alt Ramsar	<p>Ramsar Criterion 2</p> <ul style="list-style-type: none"> • Supports up to 40% of the Great Britain population of natterjack toads (<i>Epidalea calamita</i>) <p>Ramsar Criterion 5</p> <ul style="list-style-type: none"> • Supports a waterfowl assemblage of international importance, consisting of 222,038 waterfowl (5-year peak mean 1998/99-2002/03) <p>Ramsar Criterion 6</p> <ul style="list-style-type: none"> • Regularly supports 1% of the individuals in a population of one species or subspecies of waterbird 	Not Applicable	Not Applicable

	<ul style="list-style-type: none"> • Supports internationally important numbers of ringed plover, grey plover, red knot, sanderling, dunlin, black-tailed godwit, common redshank and lesser black-backed gull (peak counts in spring/autumn) • Supports internationally important numbers of whooper swan, pink-footed geese, common shelduck, Eurasian wigeon, Eurasian teal, Northern pintail, Eurasian oystercatcher and bar-tailed godwit (peak counts in winter) 		
<p>Liverpool Bay SPA</p>	<p>Qualifies under Article 4.1 of the Directive by supporting the following Annex I species:</p> <p>Foraging areas for breeding colonies:</p> <ul style="list-style-type: none"> • Common tern <i>Sterna hirundo</i> • Little tern <i>Sterna albifrons</i> <p>Non-breeding:</p> <ul style="list-style-type: none"> • Red-throated diver <i>Gavia stellate</i> • Little gull <i>Larus minutus</i> • Common scoter <i>Melanitta nigra</i> 	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features • The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, • The distribution of the qualifying features within the site. 	<ul style="list-style-type: none"> • Fisheries: Commercial marine and estuarine • Transportation and service corridors • Fisheries Recreational marine and estuarine • Extraction: Non-living resources • Siltation • Water pollution

	<p>Waterbird assemblages:</p> <ul style="list-style-type: none"> • Red-breasted merganser <i>Mergus serrator</i> • Cormorant <i>Phalacrocorax carbo</i> 		
<p>Mersey Narrows and North Wirral Foreshore SPA</p>	<p>Qualifies under Article 4.1 of the Directive by supporting the following Annex I species:</p> <p>Breeding:</p> <ul style="list-style-type: none"> • Common tern <i>Sterna hirundo</i> <p>Non-breeding:</p> <ul style="list-style-type: none"> • Common tern <i>Sterna hirundo</i> • Sanderling <i>Calidris alba</i> • Dunlin <i>Calidris alpina alpina</i> • Bar-tailed godwit (<i>Limosa lapponica</i>) • Knot (<i>Calidris canutus</i>) • Little gull (<i>Hydrocoloeus minutus</i>) • Oystercatcher <i>Haematopus ostralegus</i> • Cormorant <i>Phalacrocorax carbo</i> • Grey plover <i>Pluvialis squatarola</i> 	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features • The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, • The distribution of the qualifying features within the site. 	<ul style="list-style-type: none"> • Public access / disturbance • Changes in species distributions • Invasive Species • Climate change • Coastal squeeze • Inappropriate scrub control • Water pollution • Fisheries: Commercial marine and estuarine • Inappropriate coastal management • Marine litter • Predation • Planning permission: General • Marine consents and permits • Wildfire / arson • Air pollution: Impact of atmospheric nitrogen deposition

	<ul style="list-style-type: none"> Redshank <i>Tringa tetanus</i> 		<ul style="list-style-type: none"> Transportation and service corridors Physical modification
Mersey Narrows and North Wirral Foreshore Ramsar	<p>Ramsar Criterion 2</p> <ul style="list-style-type: none"> Regularly supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions <p>Ramsar Criterion 5</p> <ul style="list-style-type: none"> Supports a waterfowl assemblage of international importance, consisting of 32,402 waterfowl (counts from winters 2004/05-2008/09) <p>Ramsar Criterion 6</p> <ul style="list-style-type: none"> Regularly supports 1% of the individuals in a population of one species or subspecies of waterbird Supports internationally important numbers of bar-tailed godwit, black-tailed godwit and knot 	Not Applicable	Not Applicable
Manchester Mosses SAC	<p>Qualifies under Article 4.1 of the Directive by supporting the following:</p> <p>Annex I habitats:</p>	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats 	<ul style="list-style-type: none"> Hydrological changes Air pollution: Impact of atmospheric nitrogen deposition

	<ul style="list-style-type: none"> Degraded raised bogs still capable of natural regeneration 	<ul style="list-style-type: none"> The structure and function (including typical species) of qualifying natural habitats, and, The supporting processes on which qualifying natural habitats rely 	
<p>River Dee Estuary SPA</p>	<p>Qualifies under Article 4.1 of the Directive by supporting the following Annex I species:</p> <p>Breeding:</p> <ul style="list-style-type: none"> Common tern <i>Sterna hirundo</i>; Little tern <i>Sterna albifrons</i> <p>Wintering:</p> <ul style="list-style-type: none"> Bar-tailed godwit <i>Limosa lapponica</i>; Curlew <i>Numenius arquata</i>; Dunlin <i>Calidris alpina alpina</i>; Grey plover <i>Pluvialis squatarola</i>; Knot <i>Calidris canutus</i>; Oystercatcher <i>Haematopus ostralegus</i>; Pintail <i>Anas acuta</i>; Redshank <i>Tringa totanus</i>; Shelduck <i>Tadorna tadorna</i>; Teal <i>Anas crecca</i> 	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats and habitats of qualifying species The structure and function (including typical species) of qualifying natural habitats The structure and function of the habitats of qualifying species The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely The populations of qualifying species, and, The distribution of qualifying species within the site. 	<ul style="list-style-type: none"> Public access / disturbance Changes in species distributions Invasive species Climate change Coastal squeeze Inappropriate scrub control Water pollution Fisheries: Commercial marine and estuarine Inappropriate coastal management Overgrazing Direct impact from third party Marine litter Predation Planning permission: General Marine consents and permits Wildfire / arson Air pollution: Impact of atmospheric nitrogen deposition

	<p>On passage:</p> <ul style="list-style-type: none"> • Sandwich tern <i>Sterna sandvicensis</i>; • Redshank <i>Tringa totanus</i> 		<ul style="list-style-type: none"> • Transportation and service corridors • Physical modification
<p>River Dee Estuary SAC</p>	<p>Supporting the following:</p> <p>Annex I habitats:</p> <ul style="list-style-type: none"> • Annual vegetation of drift lines; • Atlantic salt meadows; • Embryonic shifting dunes; • Estuaries; • Fixed dunes with herbaceous vegetation ('grey dunes'); • Humid dune slacks; • Mudflats and sandflats not covered by seawater at low tide; • <i>Salicornia</i> and other annuals colonising mud and sand; and • Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes') • Vegetated sea cliffs of the Atlantic and Baltic coasts. <p>Annex II species:</p> <ul style="list-style-type: none"> • Petalwort <i>Petalophyllum ralfsii</i>; 	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site. 	<ul style="list-style-type: none"> • Public access / disturbance • Changes in species distributions • Invasive species • Climate change • Coastal squeeze • Inappropriate scrub control • Water pollution • Fisheries: Commercial marine and estuarine • Inappropriate coastal management • Overgrazing • Direct impact from third party • Marine litter • Predation • Planning permission: General • Marine consents and permits • Wildfire / arson

	<ul style="list-style-type: none"> • River lamprey <i>Lampetra fluviatilis</i>; • Sea lamprey <i>Petromyzon marinus</i> 		<ul style="list-style-type: none"> • Air pollution: Impact of atmospheric nitrogen deposition • Transportation and service corridors • Physical modification
River Dee Estuary Ramsar	<p>Ramsar Criterion 1</p> <ul style="list-style-type: none"> • Supports extensive intertidal mud and sand flats with large expanses of saltmarsh towards the head of the estuary <p>Ramsar Criterion 2</p> <ul style="list-style-type: none"> • Supports breeding colonies of the vulnerable natterjack toad, <i>Epidalea calamita</i> <p>Ramsar Criterion 5</p> <ul style="list-style-type: none"> • Supports a waterfowl assemblage of international importance, consisting of 120,726 waterfowl (5-year peak mean 1994/95-1998/99) <p>Ramsar Criterion 6</p> <ul style="list-style-type: none"> • Regularly supports 1% of the individuals in a population of one species or subspecies of waterbird • Supports internationally important numbers of 	Not Applicable	Not Applicable

	<p>redshank (peak counts in spring/autumn)</p> <ul style="list-style-type: none"> • Supports internationally important numbers of teal, shelduck, oystercatcher, curlew, pintail, grey plover, knot, dunlin, black-tailed godwit, bar-tailed godwit and redshank (peak counts in winter) 		
<p>River Dee and Bala Lake SAC</p>	<p>Supporting the following:</p> <p>Annex I habitats:</p> <ul style="list-style-type: none"> • Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation • Rivers with floating vegetation often dominated by water-crowfoot <p>Annex II species:</p> <ul style="list-style-type: none"> • Atlantic salmon <i>Salmo salar</i> • Floating water-plantain <i>Luronium natans</i> • Sea lamprey <i>Petromyzon marinus</i> • Brook lamprey <i>Lampetra planeri</i> • River lamprey <i>Lampetra fluviatilis</i> 	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site. 	<p>Not Available</p>

	<ul style="list-style-type: none"> • Bullhead <i>Cottus gobio</i> • Otter <i>Lutra lutra</i> 		
<p>River Eden SAC</p>	<p>Supporting the following:</p> <p>Annex I habitats:</p> <ul style="list-style-type: none"> • Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoeto-Nanojuncetea</i> • Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation • Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> <p>Annex II species:</p> <ul style="list-style-type: none"> • White-clawed crayfish (<i>Austropotamobius pallipes</i>) • Sea lamprey (<i>Petromyzon marinus</i>) • Brook lamprey (<i>Lampetra planeri</i>) • River lamprey (<i>Lampetra fluviatilis</i>) • Atlantic salmon (<i>Salmo salar</i>) 	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site. 	<ul style="list-style-type: none"> • Water pollution • Agricultural management practices • Physical modification • Invasive species • Changes in species distributions • Forestry and woodland management • Hydrological changes • Disease • Air pollution: Risk of atmospheric nitrogen deposition

	<ul style="list-style-type: none"> • Bullhead (<i>Cottus gobio</i>) • Otter (<i>Lutra lutra</i>) 		
Martin Mere SPA	<p>Qualifies under Article 4.1 of the Directive by supporting the following Annex I species:</p> <p>Over winter:</p> <ul style="list-style-type: none"> • Bewick's swan (<i>Cygnus columbianus bewickii</i>) • Whooper swan (<i>Cygnus Cygnus</i>) <p>Qualifies under Article 4.1 of the Directive by supporting the following migratory species:</p> <p>Over winter:</p> <ul style="list-style-type: none"> • Pink-footed goose (<i>Anser brachyrhynchus</i>) • Pintail (<i>Anas acuta</i>) 	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features • The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, • The distribution of the qualifying features within the site. 	<ul style="list-style-type: none"> • Hydrological changes • Invasive species • Water pollution
Martin Mere Ramsar	<p>Ramsar Criterion 5</p> <ul style="list-style-type: none"> • Supports a waterfowl assemblage of international importance, consisting of 25,306 waterfowl (5-year peak mean 1998/99-2002/03) <p>Ramsar Criterion 6</p> <ul style="list-style-type: none"> • Regularly supports 1% of the individuals in a population of 	Not Applicable	Not Applicable

	<p>one species or subspecies of waterbird</p> <ul style="list-style-type: none">• Supports internationally important numbers of pink-footed goosek (peak counts in spring/autumn)• Supports internationally important numbers of tundra swan, whooper swan, Eurasian wigeon and Northern pintail (peak counts in winter)		
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