

Shadow Habitats Regulations Assessment of the Great George Street Development

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SUMMARY

The residential development of a site on Great George Street has been proposed. Because of its scale and location, a Habitats Regulations Assessment (HRA) is required to assess the impact of the proposal on the internationally important sites for biodiversity in and around the City. Together, these Special Protection Areas, Special Areas of Conservation and Ramsar sites are known as European sites and comprise almost all the Merseyside coastline and are renowned for their wintering bird populations, sand dune populations and associated species.

HRA asks very specific questions. Firstly, it *screens* the project to identify if it may have a *likely significant effect* on a European site, *alone* or (if necessary) *in combination* with other plans and projects. If likely significant effects can be ruled out, then consent may be granted (notwithstanding any other planning issues) but if they cannot, the project must be subjected to the greater scrutiny of an *appropriate assessment* to find out if *adverse effects on the integrity* of the European sites can be ruled out. Here, mitigation measures can be considered or imposed by the competent authority if necessary, to secure this outcome. Again, if *adverse effects* can be avoided, consent can again be granted.

This document follows best practice (drawing heavily on guidance contained within the Habitats Regulations Assessment Handbook¹) and takes full account of policy and law. Where appropriate, this HRA also draws on the HRA of the emerging Local Plan.

The disturbance of wintering birds and dune habitats on European sites nearby from an increase in recreational pressure from the new residents was the only potential threat identified. However, **this HRA found that likely significant effects could be ruled out alone on all European sites in the area. There were no residual effects and, therefore, no need for an in-combination assessment with other plans and projects. Bespoke mitigation is neither proposed nor required and so there is no need for an appropriate assessment.**

This is largely because of the location of the proposed development, deep within the centre of Liverpool, the relative inaccessibility of the European sites in closest proximity and the considerable distances to the more fragile features of, for instance, the Sefton Coast. It is also reasonable to consider that many of the new residents will relocate from accommodation which is already within the City, looking for a different type of lifestyle rather than move in from further afield and therefore not add to the overall population (and recreational pressure).

A Visitor Management Strategy is under preparation by the local authorities in the area to address the issue of recreational pressure from development on the region's European sites. However, this is not yet complete, and no raw data is available to inform this HRA. Therefore, whilst key principles surrounding the impact of recreational pressure have been adopted in this HRA, the emerging Strategy has not been able to play an active role in the outcome.

Lastly, although this HRA has been prepared to help the Council discharge its duties under the Habitats Regulations, the Council is the competent authority and it must decide whether to adopt this report or otherwise.

¹ Tyldesley, D., and Chapman, C., (2013) *The Habitats Regulations Assessment Handbook*, November 2018 edition UK: DTA Publications Ltd

1. INTRODUCTION

Background

- 1.1. This Shadow HRA is submitted in support of a full planning application on behalf of Great George Street Developments Limited for: full planning permission to demolish existing structures and erect a mixed use development over 7 buildings (2-18 storeys) comprising 466 apartments and 37 townhouses (Use Class C3), 6,280sqm of commercial space (A1,A2,A3,A4,D1 and D2), 6,074sqm hotel (Use Class C1) and 4,183sqm of office space (Use Class B1) with associated access, parking, servicing, so and hard landscaping and public open space.

Author

- 1.2. This HRA has been prepared entirely by Bernie Fleming, a Chartered Ecologist and the Owner and Director of [Fleming Ecology](#). He can draw on a near 30 year career with English Nature, Natural England and as a freelance ecologist to provide practical advice on the management and protection of designated sites on land and at sea, in the UK and beyond. He is an acknowledged expert on Habitats Regulations Assessment and sits on the editorial board of the Habitats Regulations Journal which accompanies the award-winning [Habitats Regulations Assessment Handbook](#).

Natura 2000 and European sites

- 1.3. The EU Habitats Directive requires local (or '*competent*') authorities to assess the impact of plans and projects on the Natura 2000 network of protected sites. The Directive is given domestic effect by the Habitats and Species Regulations 2017 ² (the '*Habitats Regulations*'). In England, this requirement is implemented via a *Habitats Regulations Assessment (HRA)* which comprises a series of mandatory tests.
- 1.4. Natura 2000 is the cornerstone of European nature conservation policy; it is an EU-wide network of Special Protection Areas (SPA) classified under the 1979 Birds Directive and Special Areas of Conservation (SAC) designated under the 1992 Habitats Directive for a range of habitats and species, or *qualifying features*. Together, the network comprises over 27,000 sites, extending across 18% (over 1.3 million km²)³ of the land and sea of the EU28, and safeguards the most valuable and threatened habitats and species across Europe; it represents the largest, coordinated network of protected areas in the world.
- 1.5. Over 8.5% of the UK land area forms part of this network including, locally, sites such as the Mersey Estuary, Sefton Coast and Liverpool Bay. Further afield, it also incorporates such well known sites as the Manchester Mosses, Martin Mere and the Peak District.
- 1.6. In England, these sites are referred to in law, policy and elsewhere as 'European sites' which, according to Government policy⁴, also comprise 'Wetlands of International Importance' or Ramsar sites. As a matter of policy⁵ the same level of protection is also afforded to *potential* or *proposed* sites (ie pSPA, pSAC and pRamsar) which have not yet been formally classified, designated or listed, respectively.

The HRA of Projects

² Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2017

³ Natura 2000 Barometer

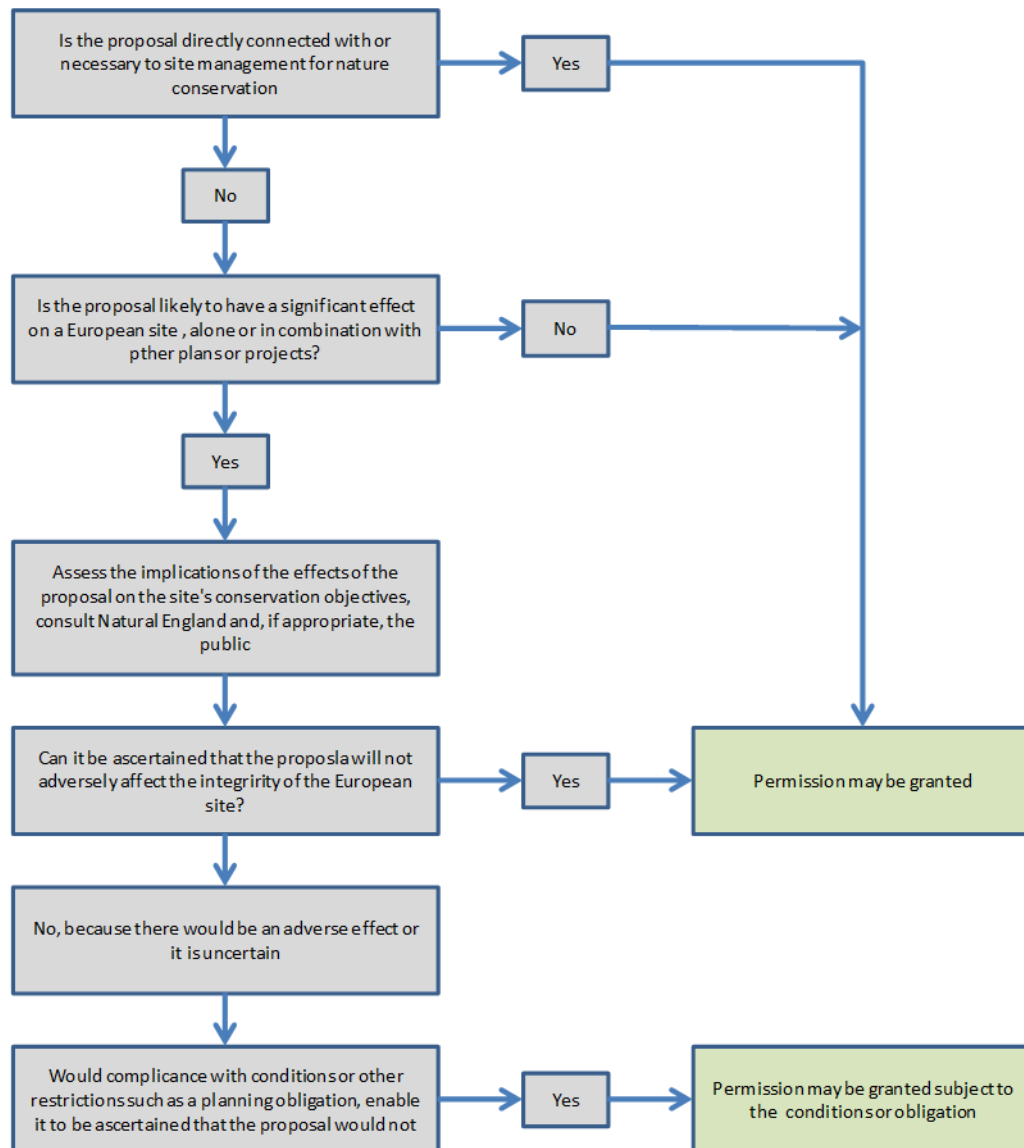
<https://view.officeapps.live.com/op/view.aspx?src=http://ec.europa.eu/environment/nature/natura2000/barometer/docs/Natura%202000%20barometer.xlsx> accessed 18 August 2019

⁴ ODPM Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System (16 August 2005)

⁵ National Planning Policy Framework (para 176). Ministry of Housing, Communities and Local Government. February 2019.

- 1.7. Fundamentally, the HRA process employs the precautionary principle and Regulation 63 ensures that where a project is 'likely to have a significant effect', it can only be consented if the competent authority can ascertain (following an appropriate assessment) that it 'will not adversely affect the integrity of the European site'. In simpler terms, it is not for the competent authority to prove harm but for the developer to demonstrate the absence of harm; the HRA process provides the evidence to justify the decision.
- 1.8. To achieve this, HRA asks very specific, mandatory questions of development projects shown graphically in Figure 1 (derived from Circular 06/05). Firstly, it explores if the project can be excluded from HRA because it is actually necessary for the management of a European site. If not, it "screens" the project to identify if it may lead to a likely significant effect (or LSE), alone or in-combination with other plans and projects. If likely significant effects can be ruled out, then no further scrutiny is necessary, and the project may be consented (notwithstanding any other planning issues).

Figure 1: Consideration of development proposals affecting European sites



- 1.9. If likely significant effects cannot be ruled out, the project must be subjected to the greater scrutiny of an appropriate assessment (AA) which explores the impact on the site's *conservation objectives*, to identify whether it may result in an adverse effect on the integrity of the European site. Only at this stage can the ameliorating effects of mitigation measures (such as changes to the design or scale) be considered or imposed. If the AA is able to rule out an AEOI (with or without mitigation) the project may again be consented.
- 1.10. An in-combination assessment is required where an impact is identified which would have an insignificant effect on its own (a residual effect) but where likely significant effects arise cumulatively with other plans or projects.
- 1.11. If AEOI cannot be ruled out, specific derogations may be sought but these are regarded as a last resort and considered only in exceptional circumstances. These explore whether alternative solutions

exist and if not, whether imperative reasons of overriding public interest (IROPI) apply and if so, whether compensation is feasible. It is implicit that the outcomes of the appropriate assessment are also subjected to an in-combination assessment.

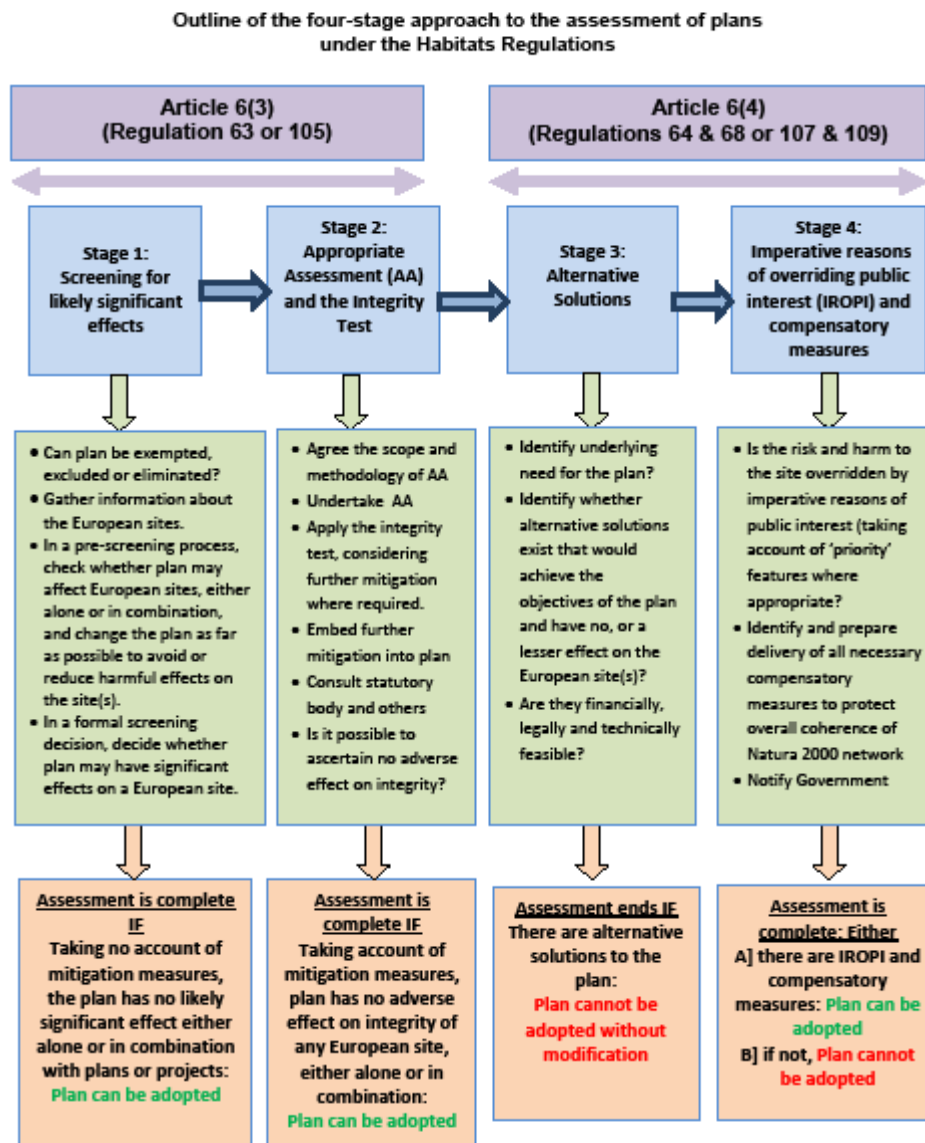
1.12. In practical terms, the HRA process described above can be broken-down into a four-stage series of tests as shown below in Table 1.

Table 1: Summary of the four-stage HRA process

Stage	Test	Task
1	Screening	Determines if the project will lead to a <i>likely significant effect</i> on a European site alone or in-combination with other plans or projects
2	Appropriate Assessment and Integrity Test	If likely significant effects cannot be ruled out, a more thorough AA must be carried out to assess whether it is possible to ascertain that the project will have ‘no <i>adverse effect on the integrity of the site</i> ’ or not. Mitigation can be considered.
3	Alternative solutions	If AEOI cannot be ruled out, the HRA must explore if less damaging <i>alternative solutions</i> could deliver the overall objective of the project
4	Imperative Reasons of Overriding Public Interest and Compensation	If no alternative solutions exist, the project can only proceed if IROPI apply and compensatory measures must be delivered before consent can be granted

1.13. The decision-making process and the specific tasks that relate to each of the four key stages are shown in Figure 2 which also includes the use of additional, pragmatic filters at the outset to explore if the project even needs to be subject to HRA at all.

Figure 2: The four stage assessment of plans under the Habitats Regulations



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- 1.14. Essentially, Table 1 and Figure 2 all indicate that if harmful effects can be ruled out in either Stages 1 or 2, a project can be withdrawn from further scrutiny. In reality, the vast majority of development projects are resolved in Stages 1 and 2 as by their nature few would pass the stringent tests of Stages 3 and 4.
- 1.15. In the next sections, therefore, this HRA first defines the meaning of key phrases. It then engages in a pre-screening exercise to ensure that the development actually requires an HRA before identifying those European sites potentially at risk. Subsequently, it formally screens the project against the characteristics of the designated sites.
- 1.16. This HRA utilises guidance provided by the Habitats Regulations Assessment Handbook. The Handbook draws on best practice and case law at home and across the EU to inform best practice and influence contemporary thinking. Subscribers to the Handbook include Natural England, the Environment Agency and the Planning Inspectorate which ensures that key decision-makers will be familiar with the approach shown in Figure 2.

Definitions, Evidence and Case Law

- 1.17. The specific meaning of the key terms and tests in HRA is of considerable importance. Drawing again on Section C.7 of the Handbook and other sources the following definitions, embedded in case law, apply to key words, phrases and stages throughout the overall process:

Stage One - Screening

- *Likely* in the context of ‘a likely significant effect’ means ‘a possible significant effect; one whose occurrence cannot be excluded on the basis of objective information’⁶; therefore, ‘likely’ differs from the normal English meaning of a probability;
 - *Significant*, in the same context, means ‘any effect that would undermine the conservation objectives for a European site ...’⁷;
 - *Objective*, in this context, means clear verifiable fact rather than subjective opinion. ...;
 - *There should be credible evidence to show that there is a real rather than a hypothetical risk⁸ of effects that could undermine the site’s conservation objectives. Any serious possibility of a risk that the conservation objectives might be undermined should trigger an ‘appropriate assessment’.* Reliance on this, the Boggis case, can help focus effort only those plausible effects and not the extremely unlikely.
- 1.18. Building on these definitions, the courts have clarified the differing levels of scrutiny in each of the first two tests. In the Sweetman case⁹, the Advocate General stated the following when describing the levels of scrutiny to be applied to each test:

‘The threshold at the first stage [the test for LSE] ... is thus a very low one. It operates merely as a trigger, in order to determine whether an appropriate assessment must be undertaken ... The threshold at this (the second) [the appropriate assessment] stage is noticeably higher than that laid down at the first stage [screening]. That is because the question (to use more simple terminology) is not ‘should we bother to check?’ (the question at the first stage) but rather ‘what will happen to the site if this plan or project goes ahead ...’.
 - 1.19. Similarly, the judge in the Bagmoor Wind case¹⁰ stated:

⁶ European Court of Justice Case C – 127/02 *Waddenzee* 7 September 2004

⁷ Peter Charles Boggis and Easton Bavants Conservation v Natural England and Waveney District Council, High Court of Justice Court of Appeal case C1/2009/0041/QBACF Citation No [2009] EWCA Civ. 1061 20th October 2009

⁸ *ibid*

⁹ C-258/11 Sweetman reference for a preliminary ruling from the Supreme Court of Ireland. Opinion of the Advocate General 22 November 2012

'If the absence of risk ... can only be demonstrated after a detailed investigation, or expert opinion, that is an indicator that a risk exists and the authority must move from preliminary examination to appropriate assessment'.

- 1.20. In other words, this means the initial screening phase should not be exhaustive and if there is any serious possibility of a risk that the conservation objectives might be undermined this should trigger an appropriate assessment.'

Stage Two – Appropriate Assessment and the Integrity Test

- 1.21. In *Champion*¹¹, the Supreme Court found that 'appropriate' is not a technical term and indicates no more than that the assessment should be appropriate to the task in hand. However, in comparison with the screening test, the 'appropriate assessment' and its associated '*Integrity Test*' it can be seen it embraces the precautionary principle and can be much more thorough.

- 1.22. The *integrity* of a European site was described in Defra draft Guidance¹² as:

the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which the site is (or will be) designated.

- 1.23. Elsewhere, the CJEU (*Sweetman*)¹³ defined integrity as:

'the lasting preservation of the constitutive characteristics of the site ... whose preservation was the objective justifying the designation of that site

- 1.24. Importantly, Habitats Regulations Assessment is an iterative process and further scrutiny within the appropriate assessment will inevitably review the initial outcomes of the screening exercise. In due course, this may result in changes such as the identification of new or the removal of existing effects or the need for an in-combination screening assessment where none had been anticipated.

- 1.25. In line with the principles of the mitigation hierarchy, if mitigation can remove an adverse effect it must be adopted no matter the cost or difficulty, if the project is to be consented; this step cannot be omitted.

Stages Three and Four – The Derogations

- 1.26. If an adverse effect on the integrity of the site can be avoided, with or without mitigation, the project can be adopted (Figure 1). If not, derogations would have to be sought to allow the plan to continue; these are regarded as a 'last resort'¹⁴ and considered only in exceptional circumstances. These explore whether *alternative solutions* are possible and if there are not, whether *imperative reasons of overriding public interest* apply and if so, whether compensation is feasible. These latter stages are not shown in Figure 1, but the entire process is summarised in Stages 2, 3 & 4 of Figure 2.

Mitigation and recent case law

- 1.27. Recently, the European Court of Justice gave its ruling on the *People Over Wind*¹⁵ case which provided a new interpretation of when and how mitigation measures should be considered in an HRA. In departing from previous decisions, it clearly identifies that measures designed specifically to avoid or reduce likely significant effects should not be evaluated at the screening stage but reserved for the appropriate assessment.

¹⁰ *Bagmoor Wind Limited v The Scottish Ministers* Court of Sessions [2012] CSIH 93

¹¹ *R (on the application of Champion) v. North Norfolk District Council* [2015] UKSC 52.

¹² Habitats Regulations Assessment. Defra draft Guidance. July 2013

¹³ *Sweetman* EU:C:2013:220 para 39

¹⁴ Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. European Union 2019.

¹⁵ [Case C/323-17 People Over Wind](#)

- 1.28. Recently, the Department of Housing, Communities and Local Government provided guidance on this but for the avoidance of doubt, this HRA takes full account of the ruling and policy by restricting consideration of bespoke mitigation measures to the appropriate assessment.

Role of the competent authority

- 1.29. Lastly, although this HRA has been prepared to help the Council discharge its duties under the Habitats Regulations, the Council is the competent authority and it must decide whether to adopt this report or otherwise.

2. THE NEED FOR ASSESSMENT AND IDENTIFYING EUROPEAN SITES AT RISK

Exclusion, Elimination and Exemption from the need for Assessment

- 2.1. Prior to the identification of vulnerable European sites, Stage 1 of Figure 2 (elaborated further in section E5.1 – 5.4 of the Handbook) encourages a brief, ‘pre-screening’ exercise prior to the formal screening test to determine if there is actually a need for an HRA. It explores if the proposed development can be:
- **Exempted** from the HRA because it is ‘... directly connected with or necessary to the management of the ... European site’;
 - **Excluded** from the HRA because ‘it is not a project within the meaning and scope of the Habitats Directive’; or
 - **Eliminated** from the HRA because it can easily be shown that although ‘it is a project ... it could not have any conceivable effect on any European site’.
- 2.2. Taking these in turn, **it is clear on the basis of current information, that the proposed development represents a project within the meaning and scope of the Directive with the potential to cause harm to European sites; consequently, it can neither be excluded nor eliminated from the HRA. Likewise, the purpose of the project is clearly not the nature conservation management of any European sites and so it cannot be made exempt from further assessment either.** Consequently, the next steps in Stage 1 of Figure 2 need to be pursued by identifying which European sites (and features) may be vulnerable as follows.

Identification of European sites at risk

- 2.3. This HRA has adopted a precautionary 10km radius from the development site to search for European sites at risk. Based on similar experiences elsewhere, this is considered to be the maximum extent that the proposal could reasonably be expected to generate measurable effects for a project of this scale and type. Using data drawn from MAGIC, sites within this area of search are listed in Table 2.

Table 2 List of European sites within 10km of the proposed development

European site
Mersey Estuary SPA/Ramsar
Mersey Narrows and North Wirral Foreshore (MNNWF) SPA/Ramsar
Sefton Coast SAC
Ribble and Alt Estuaries SPA/Ramsar
Liverpool Bay SPA
Dee Estuary SAC

- 2.4. Note that the Dee Estuary SAC, although listed above, has been excluded from further assessment because the features of interest which lie within this radius, a range of estuarine habitats, are considered resilient to potential harm arising from the proposed development.
- 2.5. All the above sites are also ‘European Marine Sites’ (EMS). An EMS is any statutory European site that comprises marine areas (ie below mean high water and out to the 12 nautical mile limit of

territorial waters). They are not designated for any additional reasons than for the habitats and species for which they have been classified as a SPA or designated as a SAC.

- 2.6. However, all EMSs are accompanied by bespoke (and lengthy) conservation objectives and supplementary advice. At this stage in the HRA, attention will focus on just the high-level objectives and scrutiny of the more detailed information will be reserved for the appropriate assessment (if required).
- 2.7. The simple presence of a European site within this area of search does not provide sufficient evidence to justify its scrutiny under subsequent stages of the HRA as the characteristics of the sites and the project will inevitably exert a strong influence on the outcome.
- 2.8. So, to encourage a consistent, reliable and repeatable process, the *Handbook* (Figure E6.3) identifies 16 generic criteria, listed in full in Appendix B (Columns 1 & 2), that when evaluated generate a preliminary and precautionary, 'long' list of European sites in Column 3 which might be affected by the Plan¹⁶. However, when considered further, using readily available information and local knowledge (Column 4) the list of plausible threats can be refined, and the list of affected sites reduced (Column 5). Albeit a coarse filter, this complies with the Boggis case by considering only realistic and credible threats and avoiding the hypothetical or extremely unlikely.
- 2.9. If Column 5 remains empty of European sites, then no European sites will be considered to be at risk and no further scrutiny will be required.
- 2.10. In practice, this exercise can have the effect of extending the area of search (for instance in the case of riverine sites) or shrinking it where the evidence demands that harmful effects are unlikely.
- 2.11. It is important to note that although the outcomes of this site identification task will reflect the type and location of activities proposed within the plan and/or the ecological characteristics of the European sites, it does not represent the test for likely significant effect (which follows later).
- 2.12. The exercise identified that only one of the 16 criteria, recreational pressure (#6b), represented a credible threat to European sites in the area. For reasons of brevity, only the relevant extract from Appendix B is presented in Table 3 below. The remaining 15 criteria are removed from any further scrutiny. Importantly, it did not provide any evidence to increase the size of the area of search. Attention is drawn to the content of all of Appendix B which provides important evidence and opinion.

¹⁶ This table is taken from the Handbook albeit with changes to the number and titles of Columns appropriate to this HRA.

Table 3: Potential mechanisms and the initial list of European sites that could be affected

Types of plan (or potential effects)	Sites to scan for and check	Initial list of potentially affected European sites	Additional context	European sites selected
6. Projects that could increase recreational pressure on European sites where qualifying features are sensitive to such pressure	(b) Such European sites within an agreed zone of influence or other reasonable and evidence-based travel distance of the project location that may be affected by local recreational or other visitor pressure generated by the project	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	The proposed development has the clear potential to increase recreational pressure along the coastline of the wider Liverpool City Region and the Europeans sites present. Therefore, harmful effects on all the European sites listed cannot be ruled out and further scrutiny, in the form of a formal screening exercise is required.	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Estuaries Sefton Coast

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- 2.13. **As impacts on the qualifying features of five European sites cannot be ruled out, a formal screening assessment is required.**
- 2.14. Table 4 provides a brief description of the five discrete sites and eight designations (when SPAs, SACs and Ramsar designations are taken into account). Conservation objectives and qualifying features are also provided. Citations for each European site are provided, in full, in Appendix A. Table 4 also draws on evidence provided within the Site Improvement Plans and, where available, Supplementary Guidance produced by Natural England.

Table 4: Description of European Sites

Description (including summary of qualifying features)	Conservation objectives/Pressures and threats (P/T)
<p>Liverpool Bay SPA</p> <p>Description</p> <p>Liverpool Bay / Bae Lerpwl SPA is in the east of the Irish Sea, bordering the coastlines of northwest England and north Wales, and running as a broad arc from Morecambe Bay to the east coast of Anglesey. It is classified for the protection of red-throated diver (<i>Gavia stellata</i>), common scoter (<i>Melanitta nigra</i>), and little gull (<i>Hydrocoloeus minutus</i>) in the non-breeding season; common tern (<i>Sterna hirundo</i>) and little tern (<i>Sterna albifrons</i>) in the breeding season, and an internationally important waterbird assemblage. Liverpool Bay / Bae Lerpwl SPA encompasses marine areas supporting large aggregations of wintering red-throated diver and common scoter as well as important marine foraging areas of little terns breeding within The Dee Estuary SPA, and foraging areas of common terns breeding at the Mersey Narrows & North Wirral Foreshore SPA¹⁷.</p> <p>The landward boundary of the SPA generally follows the mean low water mark or the boundaries of existing SPAs, whichever is the furthest seaward apart from at Prestatyn and in the river Mersey where it follows mean high water or the boundaries of existing SPAs¹⁸ extending into the narrows of the Mersey Estuary.</p> <p>Qualifying Features:</p> <p>A001 <i>Gavia stellata</i>; Red-throated diver (Non-breeding)</p> <p>A065 <i>Melanitta nigra</i>; Common scoter (Non-breeding)</p> <p>A177 <i>Hydrocoloeus minutus</i>; Little gull (Non-breeding)</p> <p>A193 <i>Sterna hirundo</i>; Common tern (Breeding)</p> <p>A195 <i>Sternula albifrons</i>; Little tern (Breeding)</p> <p>Waterbird assemblage</p>	<p>Conservation objectives</p> <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 site¹⁹. <p>Pressures and threats</p> <ul style="list-style-type: none"> • Fisheries: Commercial marine and estuarine (P); • Transportation and service corridors (T); • Fisheries: Recreational marine and estuarine (T); • Extraction: non-living Natural England resources (T); • Siltation (T); • Water Pollution (T)²⁰
<p>Ribble and Alt Estuaries SPA (12,361 ha)</p> <p>The Ribble and Alt Estuaries SPA lies on the coast of Lancashire and Merseyside in north-west England. It comprises two estuaries, of which the Ribble Estuary is by far the larger, together with an extensive area of sandy foreshore</p>	<p>Conservation objectives</p> <p>Ensure that the integrity of the site is maintained or restored as</p>

¹⁷ JNCC site description: <http://archive.jncc.gov.uk/default.aspx?page=7507> (accessed 26 August 2019)

¹⁸ Liverpool Bay SPA Citation. Natural England. October 2017.

¹⁹ European Site Conservation Objectives for Liverpool Bay / Bae Lerpwl Special Protection Area. Natural England. 21 February 2019 (Version 5).

²⁰ Site Improvement Plan Liverpool Bay. Natural England. 20 March 2015 (Version 0.3).

Description (including summary of qualifying features)

along the Sefton Coast. It forms part of the chain of western SPAs that fringe the Irish Sea. There is considerable interchange in the movements of wintering birds between this site and Morecambe Bay, the Mersey Estuary, the Dee Estuary and Martin Mere. A large proportion of the SPA is within the Ribble Estuary National Nature Reserve. The site consists of extensive sand- and mud-flats and, particularly in the Ribble Estuary, large areas of saltmarsh. There are also areas of coastal grazing marsh located behind the sea embankments. The intertidal flats are rich in invertebrates, on which waders and some of the wildfowl feed. The highest densities of feeding birds are on the muddier substrates of the Ribble, though sandy shores throughout are also used. The saltmarshes and coastal grazing marshes support high densities of grazing and seed-eating wildfowl and these, together with the intertidal sand- and mud-flats, are used as high-tide roosts. Important populations of waterbirds occur in winter, including swans, geese, ducks and waders. The SPA is also of major importance during the spring and autumn migration periods, especially for wader populations moving along the west coast of Britain. The larger expanses of saltmarsh and areas of coastal grazing marsh support breeding birds during the summer, including large concentrations of gulls and terns. These seabirds feed both offshore and inland, outside the SPA. Several species of waterbirds (notably Pink-footed Goose *Anser brachyrhynchus*) utilise feeding areas on agricultural land outside the SPA boundary²¹.

Qualifying Features:

A037 *Cygnus columbianus bewickii*; Bewick's swan (Non-breeding)
A038 *Cygnus cygnus*; Whooper swan (Non-breeding)
A040 *Anser brachyrhynchus*; Pink-footed goose (Non-breeding)
A048 *Tadorna tadorna*; Common shelduck (Non-breeding)
A050 *Anas penelope*; Eurasian wigeon (Non-breeding)
A052 *Anas crecca*; Eurasian teal (Non-breeding)
A054 *Anas acuta*; Northern pintail (Non-breeding)
A130 *Haematopus ostralegus*; Eurasian oystercatcher (Non-breeding)
A137 *Charadrius hiaticula*; Ringed plover (Non-breeding)
A140 *Pluvialis apricaria*; European golden plover (Non-breeding)
A141 *Pluvialis squatarola*; Grey plover (Non-breeding)
A143 *Calidris canutus*; Red knot (Non-breeding)
A144 *Calidris alba*; Sanderling (Non-breeding)
A149 *Calidris alpina alpina*; Dunlin (Non-breeding)

Conservation objectives/Pressures and threats (P/T)

appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- 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.²²

Pressures and threats

- Coastal squeeze (T);
- Air Pollution: risk of atmospheric nitrogen deposition (T);
- Inappropriate scrub control (P/T);
- Invasive species (T);
- Hydrological changes (T);
- Public Access/Disturbance (T);
- Inappropriate coastal management (P/T);
- Fisheries: Commercial marine and estuarine (P);
- Changes to site conditions (P);
- Shooting/scaring (P).²³

²¹ JNCC site description. <http://archive.jncc.gov.uk/default.aspx?page=1984> (accessed 26 August 2019).

²² European Site Conservation Objectives for Ribble and Alt Estuaries Special Protection Area. Natural England. 21 February 2019 (Version 4).

²³ Site Improvement Plan Sefton Ribble. Natural England. 28 October 2014 (Version 1.0).

Description (including summary of qualifying features)	Conservation objectives/Pressures and threats (P/T)
A151 <i>Philomachus pugnax</i> ; Ruff (Breeding)	
A156 <i>Limosa limosa islandica</i> ; Black-tailed godwit (Non-breeding)	
A157 <i>Limosa lapponica</i> ; Bar-tailed godwit (Non-breeding)	
A162 <i>Tringa totanus</i> ; Common redshank (Non-breeding)	
A183 <i>Larus fuscus</i> ; Lesser black-backed gull (Breeding)	
A193 <i>Sterna hirundo</i> ; Common tern (Breeding)	
Waterbird assemblage	
Seabird assemblage	

Description (including summary of qualifying features)	Conservation objectives/Pressures and threats (P/T)
<p>Ribble and Alt Estuaries Ramsar site</p> <p>Description</p> <p>The Ribble and Alt Estuaries contain extensive areas of intertidal sand and mudflats. These are backed by, on the Ribble, one of the most extensive areas of grazed saltmarsh in Britain and, along the Sefton Coast, the largest calcareous dune complex in north-western England.</p> <p>The intertidal flats support internationally important populations of waterfowl which feed on a rich invertebrate fauna and <i>Enteromorpha</i> beds.</p> <p>The saltmarsh supports a range of vegetation communities typical of north-west England maintained by stable grazing regimes. However, the estuary is accreting in response to large-scale land-claim, with <i>Spartina anglica</i> dominant in the pioneer stages with <i>Festuca rubra</i> and <i>Puccinellia maritima</i> dominating the grazed sward. Natural transitions are prevented by coastal defence structures. Small areas of saltmarsh also occur in discrete locations along the Sefton Coast.</p> <p>The sand dunes display a full range of plant communities and habitat types from embryo to grey dunes with transitions to dune grassland and heath. Numerous species-rich slacks can be found throughout the dune transition but generally the extent of vegetation cover and species diversity increases with distance from the sea. <i>Elytrigia juncea</i> and <i>Elymus arenarius</i> dominate the embryo dunes (NVC SD5&7), being replaced by <i>Ammophila arenaria</i> in the mobile yellow dunes (SD6); large areas of bare sand are still present. Two distinct types of vegetation dominate the extensive grey dunes, the first a <i>Festuca rubra</i>/<i>Rubus caesius</i> dune pasture and a <i>Salix repens</i>/<i>R. caesius</i>/dwarf shrub (SD9 variants). These dunes also support two large coniferous plantations which support a distinctive flora.</p> <p>Elsewhere, and in the absence of management, smaller areas of secondary deciduous scrub/woodland remain including <i>Hippophae rhamnoides</i> and various <i>Populus</i> spp. Dune slacks are regularly found throughout the dune complex. Normally dominated by creeping willow, they also support a diverse flora including the nationally rare liverwort, <i>Petalophyllum ralfsii</i> and dune helleborine <i>Epipactis dunensis</i> (SD15&16). Dune grassland and heath occupy fragmented locations on the extreme eastern edge of the system with <i>Calluna vulgaris</i> and <i>Carex arenaria</i> both strong characteristics.</p> <p>The dune system is a candidate Special Area of Conservation for the following Annex I habitats: dunes with creeping willow; shifting dunes; humid dune slacks; shifting dunes with marram; petalwort <i>Petalophyllum ralfsii</i>; great crested newt <i>Triturus cristatus</i>; coastal dune heathland; and dune grassland ('grey dunes'). The last two are priority habitat types under the EC Habitats Directive.²⁴</p>	<p>Conservation objectives</p> <p>Bespoke conservation objectives are not provided for Ramsar sites. Therefore, attention is drawn to the objectives provided for SPA above and the Sefton Coast SAC below which cover a similar area and most, if not all features, and provides a more contemporary account.</p> <p>However, it should be noted that the important population of natterjack toads is not accounted for in either. This will be discussed outside this table.</p> <p>Pressures and threats</p> <p>The Ramsar Information Sheet only identifies coastal erosion as the sole threat to the Ramsar site.</p> <p>However, it does add that 'There is intensive recreational use of the northern beaches (Southport & Ainsdale) where traditional activities are concentrated. These include beach car parking, and, during the summer months several large-scale events. Elsewhere, recreation is more informal and less intensive - but all beach activities on the Sefton Coast are managed by the Beach Management Plan'.</p> <p>As there is no SIP for Ramsar sites, attention is drawn to the combined SIP for the 'Sefton/Ribble' which provides a more contemporary account of pressures and threats for a similar area of land and most, if not all, the same features.</p>

²⁴ Ramsar Information Sheet: UK11057. Ribble and Alt Estuaries. JNCC. 13 June 2008 (Version 3.0).

Description (including summary of qualifying features)	Conservation objectives/Pressures and threats (P/T)
<p>Qualifying features</p> <p>Site qualifies under criteria 2, 5 and 6</p> <p>Criterion 2</p> <p>This site supports up to 40% of the Great Britain population of natterjack toads <i>Bufo calamita</i>.</p> <p>Criterion 5</p> <p>Assemblages of international importance:</p> <p>Species with peak counts in winter:</p> <p>222,038 waterfowl (5 year peak mean 1998/99-2002/2003)</p> <p>Criterion 6</p> <p>Species/populations occurring at levels of international importance.</p> <p>Breeding</p> <p>Lesser black-backed gull, <i>Larus fuscus graellsii</i> (2.7% of the breeding population)</p> <p>Passage</p> <p>Ringed plover, <i>Charadrius hiaticula</i> (5.1%); Grey plover, <i>Pluvialis squatarola</i> (4.4%); Red knot, <i>Calidris canutus islandica</i> (9.4%); Sanderling, <i>Calidris alba</i> (6%); Dunlin, <i>Calidris alpina alpina</i> (2.8%); Black-tailed godwit, <i>Limosa limosa islandica</i> (9.4%); Common redshank, <i>Tringa totanus totanus</i> (1.7%); Lesser black-backed gull, <i>Larus fuscus graellsii</i> (2.8%).</p> <p>Wintering</p> <p>Tundra swan, <i>Cygnus columbianus bewickii</i> (2.8%); Whooper swan, <i>Cygnus cygnus</i> (1%); Pink-footed goose, <i>Anser brachyrhynchus</i> (2.7%); Common shelduck, <i>Tadorna tadorna</i>, (3.7%); Eurasian wigeon, <i>Anas penelope</i> (4.6%); Eurasian teal, <i>Anas crecca</i> (1.2%); Northern pintail, <i>Anas acuta</i> (2.4%); Eurasian oystercatcher, <i>Haematopus ostralegus ostralegus</i> (1.8%); Bar-tailed godwit, <i>Limosa lapponica lapponica</i> (11.6%)²⁵</p>	

²⁵ Ibid

Description (including summary of qualifying features)	Conservation objectives/Pressures and threats (P/T)
<p>Sefton Coast SAC (4,592ha)</p> <p>Description</p> <p>The Sefton Coast in north-west England displays both rapid erosion and active shifting dunes. A substantial stretch of the dune system is fronted by shifting dunes. Marram <i>Ammophila arenaria</i> usually dominates the mobile dunes, amidst considerable areas of blown sand. Where rates of sand deposition decline, lyme grass <i>Leymus arenarius</i>, sea-holly <i>Eryngium maritimum</i> and cat's-ear <i>Hypochaeris radicata</i> occur, with red fescue <i>Festuca rubra</i> and spreading meadow-grass <i>Poa humilis</i> present on the more sheltered ridges. Sea spurge <i>Euphorbia paralias</i> and the nationally scarce dune fescue <i>Vulpia fasciculata</i> are frequent, while sea bindweed <i>Calystegia soldanella</i> is very local. The area of dunes around Formby Point has been eroding since 1906 while areas north and south of this are accreting (where the nature of the coast allows). The rapid erosion is therefore reducing the area of shifting dunes at Formby, and high, steep eroding dunes abut the beach with extensive areas of blown sand immediately inland.</p> <p>The sequence of habitats from foredunes to dune grassland and dune slack is extensive, and substantial areas of open dune vegetation remain. There are large areas of semi-fixed and fixed dunes with herbaceous vegetation exhibiting considerable variation from calcareous to acidic.</p> <p>Despite some urban and recreational development, both successional and geomorphological processes are still active and the structure and function of the site as a whole is still well-conserved. Pools in the hollows and slacks amongst the more fixed dunes are the habitat of a large population of great crested newts <i>Triturus cristatus</i>.</p> <p>A large population of petalwort <i>Petalophyllum ralfsii</i> occurs at this site. The plant was first recorded on the Sefton Coast at Ainsdale in 1861 and it is still found within the dune system between Southport and Ainsdale.²⁶</p> <p>Qualifying features</p> <p>H2110. Embryonic shifting dunes</p> <p>H2120. Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes"); Shifting dunes with marram</p> <p>H2130. Fixed dunes with herbaceous vegetation ("grey dunes"); Dune grassland*</p> <p>H2150. Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>); Coastal dune heathland*</p> <p>H2170. Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>); Dunes with creeping willow</p> <p>H2190. Humid dune slacks</p> <p>S1166. <i>Triturus cristatus</i>; Great crested newt</p> <p>S1395. <i>Petalophyllum ralfsii</i>; Petalwort</p> <p>* denotes a priority natural habitat or species (supporting explanatory text on following page)</p>	<p>Conservation objectives</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 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.²⁷ <p>Pressures and threats</p> <ul style="list-style-type: none"> • Coastal squeeze (T); • Air Pollution: risk of atmospheric nitrogen deposition (T); • Inappropriate scrub control (P/T); • Invasive species (T); • Hydrological changes (T); • Public Access/Disturbance (T); • Inappropriate coastal management (P/T); • Fisheries: Commercial marine and estuarine (P); • Changes to site conditions (P); • Shooting/scaring (P).²⁸

²⁶ Sefton Coast Citation. Defra 14 June 2005.

²⁷ European Site Conservation Objectives for Sefton Coast Special Area of Conservation. Natural England. 27 November 2018 (Version 3).

²⁸ Site Improvement Plan Sefton Ribble. Natural England. 28 October 2014 (Version 1.0).

Description (including summary of qualifying features)

Mersey Estuary SPA

Description

The Mersey Estuary is located on the Irish Sea coast of north-west England. It is a large, sheltered estuary which comprises large areas of saltmarsh and extensive intertidal sand- and mud-flats, with limited areas of brackish marsh, rocky shoreline and boulder clay cliffs, within a rural and industrial environment. The intertidal flats and saltmarshes provide feeding and roosting sites for large populations of waterbirds. During the winter, the site is of major importance for ducks and waders. The site is also important during the spring and autumn migration periods, particularly for wader populations moving along the west coast of Britain.²⁹

Qualifying features:

A048 *Tadorna tadorna*; Common shelduck (Non-breeding)

A052 *Anas crecca*; Eurasian teal (Non-breeding)

A054 *Anas acuta*; Northern pintail (Non-breeding)

A140 *Pluvialis apricaria*; European golden plover (Non-breeding)

A149 *Calidris alpina alpina*; Dunlin (Non-breeding)

A156 *Limosa limosa islandica*; Black-tailed godwit (Non-breeding)

A162 *Tringa totanus*; Common redshank (Non-breeding)

Waterbird assemblage

Conservation objectives/Pressures and threats (P/T)

Conservation objectives

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;

- 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.³⁰

Pressures and threats

- Changes in species distributions;
- Invasive species;
- Public Access/Disturbance³¹

²⁹ JNCC site description: <http://archive.jncc.gov.uk/default.aspx?page=1986> (accessed 26 August 2019).

³⁰ European site conservation objectives for Mersey Estuary Special Protection Area. Natural England. 21 February 2019 (Version 5).

³¹ Site Improvement Plan Mersey Estuary. Natural England. 15 October 2014. (Version 0.3).

Description (including summary of qualifying features)

Conservation objectives/Pressures and threats (P/T)

Mersey Estuary Ramsar site

Description

The Mersey is a large, sheltered estuary which comprises large areas of saltmarsh and extensive intertidal sand and mudflats, with limited areas of brackish marsh, rocky shoreline and boulder clay cliffs, within a rural and industrial environment. The intertidal flats and saltmarshes provide feeding and roosting sites for large and internationally important populations of waterfowl. During the winter, the site is of major importance for duck and waders. The site is also important during spring and autumn migration periods, particularly for wader populations moving along the west coast of Britain³²

Qualifying features

Site qualifies under criteria 5 and 6

Criterion 5

Assemblages of international importance

Species with peak counts in winter: 89576 waterfowl (5 year peak mean 1998/99-2002/2003)

Criterion 6

Species/populations occurring at levels of international importance.

Passage

Common shelduck, *Tadorna tadorna* (4.2%); Black-tailed godwit, *Limosa limosa islandica* (5.7%); Common redshank, *Tringa totanus totanus* (2.6%).

Winter

Eurasian teal, *Anas crecca* (2.6%); Northern pintail, *Anas acuta* (2%); Dunlin, *Calidris alpina alpina* (3.6%).³³

Conservation objectives

Bespoke conservation objectives are not provided for Ramsar sites. Therefore, attention is drawn to the objectives provided for the Mersey Estuary SPA above which covers a similar area and most, if not all the same features, and provides a more contemporary account.

Pressures and threats

The Ramsar Information Sheet doesn't identify any threats to the Ramsar site.

However, it does add that 'As the waters become cleaner, more people are likely to be attracted to water-based recreational activities including sailing, canoeing, windsurfing and angling. There is a network of footpaths in the upper estuary, with the potential to extend public access. There is also the potential for greater integration of the footpath network, and improved accessibility design.'

As there is no SIP for Ramsar sites, attention is drawn to the SIP for the 'Mersey Estuary SPA which provides a more contemporary account of pressures and threats for a similar area of land and most, if not all, the same features.

³² Ramsar Information Sheet: UK11041. Mersey Estuary. JNCC. 13 June 2008 (Version 3.0).

³³ *Ibid*

Description (including summary of qualifying features)	Conservation objectives/Pressures and threats (P/T)
Mersey Narrows and North Wirral Foreshore SPA (MNNWF)	
<p>Description</p> <p>The Mersey Narrows and North Wirral Foreshore SPA is located on the north-west coast of England at the mouths of the Mersey and Dee estuaries. The site comprises intertidal habitats at Egremont foreshore, man-made lagoons at Seaforth Nature Reserve and the extensive intertidal flats at North Wirral Foreshore. Egremont is most important as a feeding habitat for waders at low tide whilst Seaforth is primarily a high-tide roost site, as well as a nesting site for terns. North Wirral Foreshore supports large numbers of feeding waders at low tide and also includes important high-tide roost sites. The most notable feature of the site is the exceptionally high density of wintering Turnstone <i>Arenaria interpres</i>. Mersey Narrows and North Wirral Foreshore has clear links in terms of bird movements with the nearby Dee Estuary SPA, Ribble and Alt Estuaries SPA, and (to a lesser extent) Mersey Estuary SPA.³⁴</p> <p>Qualifying features</p> <p>A157. <i>Limosa lapponica</i>; Bar-tailed godwit (non-breeding)</p> <p>A177. <i>Hydrocoloeus minutus</i>; Little gull (non-breeding)</p> <p>A143. <i>Calidris canutus islandica</i>; Knot (non-breeding)</p> <p>A193. <i>Sterna hirundo</i>; Common tern (non-breeding)</p> <p>A193. <i>Sterna hirundo</i>; Common tern (breeding)</p> <p>Waterbird assemblage</p>	<p>Conservation objectives</p> <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.³⁵ <p>Pressures and threats (sample only)</p> <ul style="list-style-type: none"> • Public Access/Disturbance; • Changes in species distributions; • Climate change; • Coastal squeeze; • Fisheries: Commercial, marine and estuarine; • Inappropriate coastal management; • Overgrazing; • Direct impact from third party; • Marine litter; • Planning permission: general; • Air Pollution: impact of atmospheric nitrogen deposition (P).³⁶

³⁴ JNCC site description: <http://archive.jncc.gov.uk/default.aspx?page=2085> (accessed 26 August 2019)

³⁵ European Site Conservation Objectives for Mersey Narrows and North Wirral Foreshore Special Protection Area. Natural England 21 February 2019 (Version 2).

³⁶ Site Improvement Plan. Dee Estuary & Mersey Narrows. Natural England. 30 March 2015 (Version 1.0).

Description (including summary of qualifying features)	Conservation objectives/Pressures and threats (P/T)
<p>Mersey Narrows and North Wirral Foreshore Ramsar (MNNWF)</p> <p>Description</p> <p>The site comprises intertidal habitats at Egremont foreshore on the south bank of the Mersey, man-made saline and freshwater lagoons at Seaforth on the north bank and the extensive intertidal flats at North Wirral Foreshore. Egremont is most important as a feeding habitat for waders at low tide whilst Seaforth is primarily a high tide roost site. The two areas are separated by approximately 2km and have a constant exchange of bird populations. North Wirral Foreshore supports large numbers of feeding waders at low tide and also includes important high tide roost sites, it is an area of intertidal sands and mudflats with embryonic saltmarsh.³⁷</p> <p>Qualifying features</p> <p>Site qualifies under criteria 4, 5 and 6</p> <p>Criterion 4</p> <p>Regularly supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions</p> <p>During 2004/05 - 2008/09 the Mersey Narrows and North Wirral Foreshore Ramsar site supported important numbers of non-breeding little gulls and common terns.</p> <p>Criterion 5</p> <p>Assemblages of international importance</p> <p>During the winters 2004/05 - 2008/09, the Mersey Narrows and North Wirral Foreshore Ramsar site supported an average peak of 32,402 individual waterbirds.</p> <p>Criterion 6</p> <p>Species/populations occurring at levels of international importance.</p> <p>Regularly supports 1% of the individuals in the populations of the following species or subspecies of waterbird in any season:</p> <p>During the winters 2004/05 - 2008/09, the Mersey Narrows and North Wirral Foreshore Ramsar site supported 2.4% of the <i>islandica</i> subspecies, W Europe/Waddensea/Britain/Ireland (non-breeding) population of knot and 2.8% of the <i>lapponica</i> subspecies W Europe/NW Africa (non-breeding) population of bar-tailed godwits.³⁸</p>	<p>Conservation objectives</p> <p>Bespoke conservation objectives are not provided for Ramsar sites. Therefore, attention is drawn to the objectives provided for the MNNWF SPA above which covers a similar area and most, if not all the same features, and provides a more contemporary account.</p> <p>Pressures and threats</p> <p>The Ramsar Information Sheet identifies the following 'adverse factors':</p> <ul style="list-style-type: none"> • Sedimentation at Egremont Foreshore with sand; • Recreation/tourism disturbance adversely affecting bird numbers and behaviour; • Sedimentation at Hoylake adversely affecting bird numbers and behaviour <p>As there is no SIP for Ramsar sites, attention is drawn to the SIP for the MNNWF SPA which provides a more contemporary account of pressures and threats for a similar area of land and most, if not all, the same features.</p>

³⁷ Ramsar Information Sheet. Mersey Narrows and North Wirral Foreshore. 2009-14.

³⁸ *Ibid*

- 2.15. The net result of Table 4, and benefit to the HRA, is that the list of issues and sites potentially affected can be reduced, making for a shorter and more focused HRA than would otherwise be the case. However, in this instance, it was not possible to rule out potential impacts on any features of the European sites listed and so all are taken forward for further scrutiny. For clarity, the findings of Tables 3 and 4 are summarised in Table 5 below which identifies the potential threat and the (summarised) features at risk. These represent the key issues for the next, formal stage of this screening exercise.

Table 5: Summary of European sites, affected features and potential effects

European site	Potential effects	Qualifying features at risk
Liverpool Bay SPA	(6b) Impacts from recreational pressure	Breeding, non-breeding birds
Ribble and Alt Estuaries SPA/Ramsar	(6b) Impacts from recreational pressure	Breeding, non-breeding birds Natterjack toads
Sefton Coast SAC	(6b) Impacts from recreational pressure	All habitats Petalwort Great crested newts
Mersey Estuary SPA/Ramsar	(6b) Impacts from recreational pressure	Non-breeding birds
Mersey Narrows and North Wirral Foreshore SPA/Ramsar (MNNWF)	(6b) Impacts from recreational pressure	Breeding, non-breeding birds

- 2.16. Importantly, given the almost complete overlap between the ornithological features of the Ramsar, SPA features, an approach based on the evaluation of just the SPA features is considered adequate to deliver the necessary scrutiny of Ramsar sites as required by current Government policy at this stage of the HRA. Therefore, although reference to the Ramsar site will continue to be made in subsequent tables and in the overall conclusion, there will no specific assessment of Ramsar features in the following screening exercise unless it is required for clarity. Should an appropriate assessment be required, subtle differences will be explored, however.
- 2.17. This relationship is not always so convenient and in the case of natterjack toads, a feature of the Ribble and Alt Estuaries Ramsar site, no such overlap is provided and so this will be considered specifically in the following text even though there are strong reasons to suggest that that assessment of the Sefton Coast SAC habitats would be adequate to provide the necessary scrutiny to safeguard this assemblage.

3. SCREENING

Recreational pressure

Context

- 3.1. For those European sites around Liverpool, adverse ecological effects from recreational pressure are largely limited to walking (frequently with dogs) and family-based beach activities. The most popular destinations can draw in visitors in great numbers from considerable distances and lead to erosion and disturbance. Less popular sites, or those with fewer facilities, have a smaller catchment, fewer visitors and the issue is typically less problematic. Alternatively, sites managed specifically to encourage large numbers of visitors can tolerate these pressures without causing significant harm.
- 3.2. Excessive recreational pressure typically leads to the disturbance of qualifying species, and a reduction in habitat quality/extent from trampling. It can be particularly problematic on land with open or unauthorised access where site management can be compromised.
- 3.3. In addition, dogs can not only cause localised eutrophication and the displacement of flocks of wintering birds on the foreshore, for instance, but can also disturb grazing stock, reducing the effectiveness of site management and a decline in the condition of features not normally considered vulnerable.
- 3.4. Distance or accessibility remain key factors and in general, where modest residential proposals are situated over 5km from a vulnerable European site, then likely significant effects (alone) can often (if not always) be ruled out. Of course, each site is different and other key factors will include the fragility of the feature, size of the development, the accessibility of alternative destinations, the availability of footpaths, public transport, car parks and so on.
- 3.5. Table 4 shows that all the European site listed, except Liverpool Bay SPA (which extends through the Mersey Narrow and lies in closest proximity to the proposed development, identify recreational disturbance as a threat to the achievement of the conservation objectives.
- 3.6. A Visitor Management Strategy is under preparation by the local authorities in the area to address the issue of recreational pressure from development on the region's European sites. However, this is not yet complete, and no raw data is available to inform this HRA. Therefore, whilst key principles surrounding the impact of recreational pressure have been adopted in this HRA, the emerging Strategy has not been able to play an active role in the outcome.
- 3.7. Evidence has been sought elsewhere to quantify the distances new residents can reasonably be expected to travel on a regular basis. A similar visitor survey in 2012³⁹ on the Humber Estuary which, like Liverpool, comprising the (admittedly smaller) city of Hull immediately adjacent to a European site, found that the median distance travelled by visitors to the estuary (by car) was just 4.4km. It can be dangerous to place too much reliance on data from elsewhere, but this evidence was used to identify European sites at risk in this HRA although as a precautionary measure, it was more than doubled to 10km.
- 3.8. The 2011 Census shows that the population of Liverpool City Council is 466,415 and that of the City Region is over 1.5 million. The proposal offers 466 apartments with a mix of 1 and 2 bed apartments in addition to 37 townhouses. Therefore the number of residents anticipated to occupy the proposed development is likely to be in the region of 1,000, or between 0.2 and 0.07%,

³⁹ Fearnley, H., Liley, D. & Cruickshanks, K. (2012). Results of the recreational visitor surveys across the Humber Estuary. Footprint Ecology, unpublished report for Humber Management Scheme

respectively. It is reasonable to consider that many of the new residents will relocate from accommodation which is already within the City, looking for a different type of lifestyle offer rather than move in from elsewhere. Car ownership at the proposed development will be restricted with less than one parking space per dwelling although there is a good public transport.

Screening opinion for European sites at risk

Liverpool Bay SPA

European site	Potential effects	Qualifying features at risk
Liverpool Bay SPA	(6b) Impacts from recreational pressure	Breeding, non-breeding birds

- 3.9. At its closest, the proposed development lies just over 1km from the boundary of the Liverpool Bay SPA (as the crow flies) and around 1.4km on foot through a heavily urbanised environment. Gaining access to the river is either very easy, at Albert Dock, Kings Dock, or the Pier Head, for instance, or restricted by commercial and port developments. Access to the southern shore of the river follows a similar pattern but travel is more time-consuming, requiring the use of a ferry and a journey of 4.5km if travelling by foot towards the foreshore near Egremont, for instance. Journeys by car could be achieved in 20 minutes or so but involve a journey of around 10km.
- 3.10. The Liverpool waterfront is a very popular tourist destination and, given its proximity, it is likely that new residents will be frequent visitors to the existing facilities.
- 3.11. However, Liverpool Bay SPA is a large site composed predominantly of offshore waters though it does extend into the narrows between Liverpool and Birkenhead. All provide marine/estuarine foraging habitat for the qualifying features (and those of neighbouring European sites). The European site does not comprise any of the limited amount of foreshore exposed at low tide within the estuary (this being accommodated by other European sites discussed below).
- 3.12. The qualifying features comprise both breeding and non-breeding species and so will be present throughout the year but typically, these forage offshore, frequently at considerable distances and in the case of red-throated diver and common scoter, far out into the bay. Therefore, not only will the number of new residents relative to existing visitor numbers be modest and even less so on the southern shore, but given the distance between the waterfront and the typical foraging areas within the river and beyond, the likelihood of harm arising is highly unlikely.
- 3.13. As such, it is almost inconceivable that disturbance from increased recreational pressure on the waterfront could undermine the conservation objectives for the Liverpool Bay SPA and **likely significant effects can be ruled out alone.**
- 3.14. Confidence in this outcome can be drawn from Natural England's SIP which excludes recreational disturbance as a threat.

Ribble and Alt Estuaries SPA/Ramsar

European site	Potential effects	Qualifying features at risk
Ribble and Alt Estuaries SPA/Ramsar	(6b) Impacts from recreational pressure	Breeding, non-breeding birds Natterjack toads

- 3.15. The SPA and Ramsar site together support a comprehensive list of breeding and non-breeding birds. The site is large, extending over 12,000ha, and for over 40km from Crosby in the south to the outskirts of Preston to the north. As a consequence, the qualifying features are not distributed evenly.

- 3.16. The nearest element, adjacent to Crosby Marine Lake, lies 8.5km distant as the crow flies and just over 10km by car and public transport. This is a popular destination with easy access to the beach and a number of attractions, notably the marine lake itself (though it lies outside the designated site) and the Anthony Gormley statues on the foreshore. In contrast, Liverpool docks lie immediately to the south with frequent shipping movements and associated noise and disturbance.
- 3.17. Perhaps as a consequence of these existing pressures and disturbance, bird numbers are relatively low when compared with the rest of the Ramsar site. Breeding bird interest is absent (this is found far to the north) even if wintering birds will forage and roost on the foreshore though in reduced numbers to those elsewhere. The important and fragile sites lie considerable distances to the north from the proposed development, eg the mouth of the River Alt at Hightown (approximately 20km), the National Trust reserve at Formby (25km) and Natural England's National Nature Reserves (NNRs) at Cabin Hill and Ainsdale (both around 25km).
- 3.18. All these sites lie far beyond the initial 10km radius chosen to identify sites at risk. Given these distances to the primary winter feeding/roosting areas, measurable effects from the proposed development can safely be discounted. Even on the foreshore at Crosby, impacts can be confidently dismissed not only because of the relatively limited importance of the area for non-breeding birds but also simply because of the distance and travel time involved to access the site.
- 3.19. A distance of 10km by car or public transport represents a considerable barrier for potential visitors. Given that car ownership will be restricted and journeys by public transport could take around 45 minutes, visits are likely to be infrequent with proportionately greater use made of the many local parks nearby, such as Sefton and Otterspool for general recreation including dog-walking.
- 3.20. The latter is particularly important. Typically, the majority of disturbance to wintering flocks on the foreshore is caused by dogs off the lead. This is problematic because dogs and their walkers (who live nearby) often visit regularly and sometimes daily, leading to sustained, regular disturbance. However, given the distance, it is considered extremely unlikely that new residents at Great George Street will make regular, frequent trips with dogs (and instead make more use of the many public parks nearby) ruling out much of the potential for disturbance.
- 3.21. Furthermore, reflecting the typical use of the beach at Crosby, most visits are likely to be made in the summer when the wintering bird interest will simply be absent. Impacts on the ruff, common tern and lesser black-backed gull breeding populations of the SPA/Ramsar can also be confidently ruled out as they are found far to the north. In winter, the short days and bad weather effectively preclude most visitors.
- 3.22. In addition, the entire Sefton Coast benefits from the Beach Management Plan, a long-standing initiative to manage visitor pressure on the Sefton Coast. The zoning of activities precludes disturbance of vulnerable features, backed-up by effective wardening and a range of guides and signage to promote responsible behaviours. In existence for over 30 years it represents best practice in coastal zone management.
- 3.23. Beyond the foreshore, geese and swans in particular also utilise undesignated agricultural land far from the SPA/Ramsar for foraging and roosting. Access is limited on this largely private 'functionally-linked land' and again, harmful effects can be ruled out.
- 3.24. The natterjack toad population (a Ramsar feature alone) exists as discrete populations concentrated around the centre of the site, focused on a series of ephemeral breeding ponds. Main populations are found within the Cabin Hill and Ainsdale NNRs, and the Ravenmeols and, Ainsdale and Birkdale Hills Local Nature Reserves (LNRs). Their nocturnal habits largely rule out their sensitivity to typical recreational pressure and, as all lie more than 25km to the north of the

proposed development, and all are carefully managed by Natural England and Sefton Council, harmful effects can be ruled out.

- 3.25. As such, it is almost inconceivable that disturbance from increased recreational pressure could undermine the conservation objectives for the Ribble and Alt Estuaries SPA/Ramsar and **likely significant effects can be ruled out alone.**

Sefton Coast

European site	Potential effects	Qualifying features at risk
Sefton Coast SAC	(6b) Impacts from recreational pressure	All habitats Petalwort Great crested newts

- 3.26. Arguments presented for the Ribble and Alt Estuaries above also apply for the Sefton Cost SAC which occupies much of the same land (though excluding the Ribble Estuary far to the north). Again, the closest component can be found at Crosby.
- 3.27. This is a popular destination for daytrips and although the foreshore is extensive the dunes are very modest in scale, restricted to a thin strip in reasonable proximity to car parks and public transport (a consequence of past development). The same ameliorating factors also apply. The site and visitor behaviour are managed under the Beach Management Plan with wardening, guidance and signs in evidence. Distance is again a key factor diminishing the magnitude of any possible impact as it is reasonable to conclude that preferential use will be made of the many public parks in close proximity to Great George Street especially given the restricted car parking at the proposed development.
- 3.28. The more extensive, if more fragile dune communities, along with populations of petalwort and great crested newts can be found further to the north and within the more actively managed NNRs and LNRs. Elsewhere, golf courses severely restrict public access. These sites lie 20km or more from the proposed development making measurable impacts from recreational pressure associated with the proposed development highly unlikely.
- 3.29. The latter remains important in terms of dogs. Eutrophication can be problematic as can the worrying of grazing stock which can compromise site management. This can be exacerbated as dogs and their walkers (who live nearby) often visit regularly and sometimes daily, leading to sustained, regular disturbance. However, given the distance, it is considered extremely unlikely that new residents at Great George Street will make regular, frequent trips with dogs (and instead make more use of the many public parks nearby) ruling out much of the potential for disturbance. Consequently, harmful effects can be ruled out.
- 3.30. As such, it is almost inconceivable that disturbance from increased recreational pressure could undermine the conservation objectives for the Ribble and Alt Estuaries SPA/Ramsar **and likely significant effects can be ruled out alone.**

Mersey Estuary SPA/Ramsar

European site	Potential effects	Qualifying features at risk
Mersey Estuary SPA/Ramsar	(6b) Impacts from recreational pressure	Non-breeding birds

- 3.31. The Mersey Estuary SPA/Ramsar is almost contiguous with the Liverpool Bay SPA and occupies the 'inner' Mersey Estuary to the south-east of the proposed development. Access to the southern

bank is highly restricted by the presence of development and the Manchester Ship Canal at almost all locations except Rock Ferry/Port Sunlight, approximately 10.5km distant by car. Here access to the foreshore is straightforward though facilities are lacking.

- 3.32. On the northern shore, the intertidal mudflats used for feeding and roosting are largely confined to the middle of the estuary with only limited exposed habitat in proximity to the shoreline. Again, intense urban development, including the John Lennon Airport and Garston Docks restricts access whilst in Cressington, for example, high seawalls precludes access to the foreshore. In reality, the nearest open access is probably in the vicinity of the National Trust property at Speke Hall, 8.5km as the crow flies and again, around 10km by car.
- 3.33. As with visitors to Crosby discussed above, distance is a major factor and 10km can be considered beyond what would be pursued on a regular basis. Together with Rock Ferry, these represent just a handful of locations with access with other opportunities, eg beyond the airport, even more distant and with access further compromised by farmland. The more popular destination of Hale Lighthouse with access to the foreshore is around 18km by car.
- 3.34. The latter remains an important factor. The majority of disturbance to wintering flocks on the foreshore is caused by dogs off the lead. This is problematic because dogs and their walkers (who live nearby) often visit regularly and sometimes daily, leading to sustained, regular disturbance. However, given the distances involved, it is considered extremely unlikely that new residents at Great George Street will make regular, frequent trips with dogs to these destinations (and instead make more use of the many public parks nearby) ruling out much of the potential for disturbance.
- 3.35. Importantly, and reflecting typical visits to the coast, most journeys are likely to be made in the summer when the wintering bird interest will simply be absent; in winter, the short days and bad weather effectively preclude many visitors. There is no breeding bird interest within the SPA/Ramsar site. Given the distances involved, the lack of access and the location of the main intertidal habitats within the estuary (as opposed to adjacent to the shoreline) means that disturbance of wintering birds is highly unlikely.
- 3.36. As such, it is almost inconceivable that disturbance from increased recreational pressure could undermine the conservation objectives for the Mersey Estuary SPA/Ramsar **and likely significant effects can be ruled out alone.**

Mersey Narrows and North Wirral Foreshore SPA/Ramsar

European site	Potential effects	Qualifying features at risk
Mersey Narrows and North Wirral Foreshore SPA/Ramsar (MNNWF)	(6b) Impacts from recreational pressure	Breeding, non-breeding birds

- 3.37. The MNNWF SPA/Ramsar extends over an enormous area from the north of the Wirral to the contiguous intertidal stretches of the Mersey Narrows and to Seaforth Docks, the latter, a Lancashire Wildlife Trust Reserve comprising an open water body located deep within Liverpool Docks. It is the latter which supports breeding common terns although individuals also utilise neighbouring European sites to feed.
- 3.38. Access to Seaforth is highly restricted and so recreational pressure on the site can be confidently ruled out. Common terns feed on open water away from the influence of public pressure and so harmful effects from any increase in recreational pressure can again be safely ruled out.

- 3.39. In terms of non-breeding birds, the main expanse of foreshore along the north Wirral coastline is far distant from the proposed development site. Although access to the foreshore is straightforward, and it remains a popular destination, the number of visitors from the proposed development likely to make this journey on a regular basis is likely to be very small.
- 3.40. However, the European site also encompasses a stretch of foreshore on the Mersey opposite Liverpool at Egremont. The character of the foreshore is changing with coastal defence carried out 20 years ago or so now prompting the deposition of sand above the gravel that dominated beforehand. This has affected the site in a number of ways, one being the decline in the wintering turnstone population (that requires gravelly substrates for feeding) and another in making the foreshore more attractive for recreational activities. However, it remains just over 10km distant at its nearest point by car and nearly 20km at its furthest.
- 3.41. The latter remains important. The majority of disturbance to wintering flocks on the foreshore is caused by dogs off the lead. This is problematic because dogs and their walkers (who live nearby) often visit regularly and sometimes daily, leading to sustained, regular disturbance. However, given the distances involved, it is considered extremely unlikely that new residents at Great George Street will make regular, frequent trips with dogs to the Wirral ruling out much of the potential for disturbance.
- 3.42. Common themes expressed previously also arise here though. Reflecting typical visits to the coast and the situation likely to be experienced at Crosby, for instance, most visits are likely to be made in the summer when the wintering bird interest will simply be absent; in winter, the short days and poor weather effectively preclude many visitors.
- 3.43. Harmful effects on breeding bird interest can be confidently ruled out given the absence of this feature from this component of the European site.
- 3.44. Given the distances involved, means that disturbance of wintering birds is highly unlikely.
- 3.45. As such, it is almost inconceivable that disturbance from increased recreational pressure could undermine the conservation objectives for the MNNWF SPA/Ramsar and likely significant effects can be ruled out alone.

Overall screening opinion and generic comments

- 3.46. Likely significant effects (Alone) have been ruled out for all European sites in terms of the effect of recreational pressure. As they have been ruled out alone, there are no residual effects.
- 3.47. A number of recurring themes justify this conclusion. Primarily this is based on distance to accessible areas of the foreshore which alone will reduce the number and frequency of visits. The majority of accessible sites were around 20km or more away which provides a significant barrier, effectively precluding frequent trips.
- 3.48. This is particularly important in terms of residents with dogs. When off the lead, dogs can be the primary source of disturbance to feeding and roosting flocks, and livestock, yet it is almost inconceivable that regular trips will be made with dogs. It is considered reasonable to conclude that pet-owners will make more use of the many public park in the vicinity of the proposed development. This alone is likely to remove much of the potential threat to the European sites.
- 3.49. Further weight is given by the seasonal nature of the ornithological interest. In summer, when most visits are likely to be made, the non-breeding populations will be absent; in winter, short days and poor weather will further reduce visitor numbers and frequency. Breeding bird interest is located either on secure sites or far away from the proposed development.

- 3.50. The most popular potential destinations are also well managed and in particular the Sefton Coast relies on the an effective wardening service and Beach Management Plan to zone and manage beach activities. Natural England and the National Trust also maintain a presence and together, recreational pressure is well managed and will continue to be so.
- 3.51. It is also reasonable to consider that many of the new residents will relocate from accommodation which is already within the City, looking for a different type of lifestyle rather than move in from further afield and therefore not add to the overall population (and recreational pressure).
- 3.52. Overall, it is clear the potential for recreational pressure to undermine the conservation objective of the European sites is remote. Bearing in mind the Boggis case, and the need for threats to be credible rather than hypothetical, a conclusion of no likely significant effect (alone) can be justified.

4. IN-COMBINATION ASSESSMENT

- 4.1. For the avoidance of doubt, an in-combination assessment is required only where an impact is identified which would have an insignificant effect on its own (a 'residual effect') but where likely significant effects may arise cumulatively with other plans or projects.
- 4.2. Cumulative effects are those which make the effect more *likely* or more *significant*.
- 4.3. Principle 17 (Chapter C.8) of the Handbook states:

Where a plan or project has no adverse effect on a site at all, no 'in combination' test is necessary because it cannot contribute to any cumulative adverse effects.
- 4.4. This HRA has ruled out likely significant effects alone. This means there are no residual effects. Therefore, there are no issues which require assessment in-combination.
- 4.5. Importantly, this approach, embedded in the Handbook represents best practice and, as subscribers to the Handbook, is that utilise by Natural England and the Planning Inspectorate.
- 4.6. A summary of the entire screening exercise is provided in Table 6 but note that conservation objectives have been summarised and attention is drawn to the source documents for the complete versions.

Table 6: Summary of screening outcome

European site	Issue	Feature affected	Conservation objectives*	Conservation objectives undermined?	Residual effects?	In-combination effect	Appropriate assessment
Liverpool Bay SPA	Recreational pressure	Breeding birds Non-breeding birds	Extent and distribution of habitats of qualifying features	No	None	N/A	N/A
			Structure and function of habitats of qualifying features	No	None	N/A	
			Supporting processes on which the habitats of the qualifying species rely	No	None	N/A	
			The population of each of the qualifying features	No	None	N/A	
			The distribution of the qualifying features within the site	No	None	N/A	
Ribble and Alt Estuaries SPA/Ramsar	Recreational pressure	Breeding birds Non-breeding birds Natterjack toads	The extent and distribution of qualifying natural habitats and habitats of qualifying species	No	None	N/A	N/A
			The structure and function (including typical species) of qualifying natural habitats	No	None	N/A	
			The structure and function of the habitats of qualifying species	No	None	N/A	
			The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely	No	None	N/A	
			The populations of qualifying species	No	None	N/A	
			The distribution of qualifying species within the site	No	None	N/A	
Sefton Coast SAC	Recreational pressure	Sand dune habitats Petalwort Great crested newts	Extent and distribution of qualifying habitats and those of qualifying species	No	None	N/A	N/A
			Structure and function of qualifying habitats	No	None	N/A	
			Structure and function of habitats of qualifying species	No	None	N/A	
			Supporting processes on which qualifying habitats rely	No	None	N/A	
			Populations of qualifying species	No	None	N/A	
			Distribution of qualifying species	No	None	N/A	
Mersey Estuary SPA/Ramsar	Recreational pressure	Non-breeding birds	The extent and distribution of the habitats of the qualifying features	No	None	N/A	N/A
			The structure and function of the habitats of the qualifying features	No	None	N/A	
			The supporting processes on which the habitats of the qualifying features rely	No	None	N/A	
			The population of each of the qualifying features	No	None	N/A	

European site	Issue	Feature affected	Conservation objectives*	Conservation objectives undermined?	Residual effects?	In-combination effect	Appropriate assessment
			The distribution of the qualifying features within the site	No	None	N/A	
Mersey Narrows and North Wirral Foreshore SPA/Ramsar	Recreational pressure	Breeding birds Non-breeding birds	The extent and distribution of the habitats of the qualifying features	No	None	N/A	N/A
			The structure and function of the habitats of the qualifying features	No	None	N/A	
			The supporting processes on which the habitats of the qualifying features rely	No	None	N/A	
			The population of each of the qualifying feature	No	None	N/A	
			The distribution of the qualifying features within the site	No	None	N/A	

5. FORMAL SCREENING OPINION

- 5.1. The proposed development has been screened according to the statutory procedures laid out in the Habitats Regulations using the methodology laid out in the Habitats Regulations Assessment Handbook.
- 5.2. The disturbance of wintering birds and dune habitats on European sites nearby from an increase in recreational pressure from the new residents was the only potential threat identified. However, **this HRA found that likely significant effects could be ruled out alone on all European sites in the area. There were no residual effects and, therefore, no need for an in-combination assessment with other plans and projects. Bespoke mitigation is neither proposed nor required and so there is no need for an appropriate assessment.**
- 5.3. This is largely because of the location of the proposed development, deep within the centre of Liverpool, the relative inaccessibility of the European sites in closest proximity and the considerable distances to the more fragile features of, for instance, the Sefton Coast.
- 5.4. A Visitor Management Strategy is under preparation by the local authorities in the area to address the issue of recreational pressure from development on the region's European sites. However, this is not yet complete, and no raw data is available to inform this HRA. Therefore, whilst key principles surrounding the impact of recreational pressure have been adopted in this HRA, the emerging Strategy has not been able to play an active role in the outcome.
- 5.5. Lastly, although this HRA has been prepared to help the Council discharge its duties under the Habitats Regulations, the Council is the competent authority and it must decide whether to adopt this report or otherwise.

APPENDICES

A. Citations and Qualifying Features

Liverpool Bay SPA

EC Directive 2009/147/EC on the Conservation of Wild Birds

Special Protection Area (SPA)

Name: *Liverpool Bay / Bae Lerpwl Special Protection Area*

Counties/Unitary Authorities:

The SPA lies almost entirely in UK territorial waters adjacent to the following counties / unitary authorities: Lancashire, Blackpool, Merseyside, Sir y Fflint / Flintshire, Conwy, Gwynedd, Ynys Môn / Isle of Anglesey and a small portion sits within Sir Ddinbych / Denbighshire unitary authority.

Boundary of the SPA:

The SPA extends out from Morecambe Bay beyond 12 nautical miles at the northwest point and offshore of the mouth of the Dee Estuary. The western boundary of the SPA extends into Welsh waters to Point Lynas on Anglesey.

The landward boundary of the SPA generally follows the mean low water mark or the boundaries of existing SPAs, whichever is the furthest seaward apart from at Prestatyn and in the river Mersey where it follows mean high water or the boundaries of existing SPAs.

Size of SPA: The SPA covers an area of 252,757.73 ha.

Site description:

Liverpool Bay is located in the south-eastern region of the northern part of the Irish Sea, bordering north-west England and north Wales. The SPA is a broad arc from approximately Morecambe Bay to the east coast of Anglesey. The seabed of the SPA consists of a wide range of mobile sediments. Large areas of muddy sand stretch from Rossall Point to the Ribble Estuary, and sand predominates in the remaining areas, with a concentrated area of gravelly sand off the Mersey Estuary and a number of prominent sandbanks off the English and Welsh coasts. The tidal currents throughout the SPA are generally weak, which combined with a relatively large tidal range facilitates the deposition of sediments.

This citation relates to a site entered in the Register of European Sites for Great Britain.

Register reference number: UK9020294

Date of registration: 31st October 2017

Signed:

On behalf of the Secretary of State for Environment, Food and Rural Affairs

Ribble and Alt Estuaries Ramsar

General overview of the site:

A large area including two estuaries which form part of the chain of west coast sites which fringe the Irish Sea. The site is formed by extensive sand and mudflats backed, in the north, by the saltmarsh of the Ribble Estuary and, to the south, the sand dunes of the Sefton Coast. The tidal flats and saltmarsh support internationally important populations of waterfowl in winter and the sand dunes

General ecological features:

The Ribble and Alt Estuaries contain extensive areas of intertidal sand and mudflats. These are backed by, on the Ribble, one of the most extensive areas of grazed saltmarsh in Britain and, along the Sefton Coast, the largest calcareous dune complex in north-western England. The intertidal flats support internationally important populations of waterfowl which feed on a rich invertebrate fauna and *Enteromorpha* beds.

The saltmarsh supports a range of vegetation communities typical of north-west England maintained by stable grazing regimes. However, the estuary is accreting in response to large-scale land-claim, with *Spartina anglica* dominant in the pioneer stages with *Festuca rubra* and *Puccinellia maritima* dominating the grazed sward. Natural transitions are prevented by coastal defence structures. Small areas of saltmarsh also occur in discrete locations along the Sefton Coast.

The sand dunes display a full range of plant communities and habitat types from embryo to grey dunes with transitions to dune grassland and heath. Numerous species-rich slacks can be found throughout the dune transition but generally the extent of vegetation cover and species diversity increases with distance from the sea. *Elytrigia juncea* and *Elymus arenarius* dominate the embryo dunes (NVC SD5&7), being replaced by *Ammophila arenaria* in the mobile yellow dunes (SD6); large areas of bare sand are still present. Two distinct types of vegetation dominate the extensive grey dunes, the first a *Festuca rubra*/*Rubus caesius* dune pasture and a *Salix repens*/*R. caesius*/dwarf shrub (SD9 variants). These dunes also support two large coniferous plantations which support a distinctive flora. Elsewhere, and in the absence of management, smaller areas of secondary deciduous scrub/woodland remain including *Hippophae rhamnoides* and various *Populus* spp. Dune slacks are regularly found throughout the dune complex. Normally dominated by creeping willow, they also support a diverse flora including the nationally rare liverwort, *Petalophyllum ralfsii* and dune helleborine *Epipactis dunensis* (SD15&16). Dune grassland and heath occupy fragmented locations on the extreme eastern edge of the system with *Calluna vulgaris* and *Carex arenaria* both strong characteristics.

The dune system is a candidate Special Area of Conservation for the following Annex I habitats: dunes with creeping willow; shifting dunes; humid dune slacks; shifting dunes with marram; petalwort *Petalophyllum ralfsii*; great crested newt *Triturus cristatus*; coastal dune heathland; and dune grassland ('grey dunes'). The last two are priority habitat types under the EC Habitats Directive.

Ribble and Alt Estuaries SPA

EC Directive 79/409 on the Conservation of Wild Birds: Citation for Special Protection Area

(SPA) Name: Ribble & Alt Estuaries

Unitary Authority/County: Lancashire; Sefton.

Site description: The Ribble and Alt Estuaries SPA lies on the coast of Lancashire and Sefton in northwest England. The SPA encompasses all or parts of Ribble Estuary SSSI and Sefton Coast SSSI. It comprises two estuaries, of which the Ribble is by far the larger, together with an extensive area of sandy foreshore along the Sefton Coast, and forms part of the chain of west coast SPAs that fringe the Irish Sea. Indeed, there is considerable interchange in the movements of birds between this site and Morecambe Bay, Mersey Estuary, Dee Estuary and Martin Mere. A large proportion of the SPA is within the Ribble Estuary National Nature Reserve. The site consists of extensive areas of sand and mudflats and, particularly in the Ribble, large areas of saltmarsh. There are also areas of coastal grazing marsh. The intertidal flats are rich in invertebrates on which waders and some wildfowl feed. The highest densities of feeding birds are on the muddier substrates of the Ribble, though sandy shores throughout are also used. Saltmarshes and coastal grazing marshes support high densities of wildfowl and these, together with intertidal sand and mudflats throughout, are used as high tide roosts. The site supports internationally important populations of waterbirds in winter, including swans, geese, ducks and waders. It is also of major importance during migration periods, especially for wader populations moving along the west coast of Britain. The larger expanses of saltmarsh and areas of coastal grazing marsh support breeding birds, including large concentrations of gulls and terns. These seabirds feed both offshore and inland, outside the SPA. Several species of waterfowl (notably Pink-footed Goose *Anser brachyrhynchus*) utilise feeding areas on agricultural land outside the SPA boundary.

Appendices

Mersey Estuary SPA

EC Directive 79/409 on the Conservation of Wild Birds Special Protection Area (SPA) Name: Mersey Estuary

Unitary Authority/County: Cheshire; Halton; Liverpool; and Wirral.

Site description:

The Mersey Estuary is on the Irish Sea coast of north-west England. The SPA encompasses all or parts of Mersey Estuary SSSI and New Ferry SSSI. It is a large, sheltered estuary which comprises large areas of saltmarsh and extensive intertidal sand and mudflats, with limited areas of brackish marsh, rocky shoreline and boulder clay cliffs, within a rural and industrial environment. The intertidal flats and saltmarshes provide feeding and roosting sites for large and internationally important populations of waterfowl. During the winter, the site is of major importance for duck and waders. The site is also important during spring and autumn migration periods, particularly for wader populations moving along the west coast of Britain.

Size of SPA: The SPA covers an area of 5,023.35 ha.

Mersey Estuary Ramsar

General overview of the site:

The Mersey is a large, sheltered estuary which comprises large areas of saltmarsh and extensive intertidal sand and mudflats, with limited areas of brackish marsh, rocky shoreline and boulder clay cliffs, within a rural and industrial environment. The intertidal flats and saltmarshes provide feeding and roosting sites for large and internationally important populations of waterfowl. During the winter, the site is of major importance for duck and waders. The site is also important during spring and autumn migration periods, particularly for wader populations moving along the west coast of Britain.

General ecological features:

Within this site the main habitat types are: Mudflats, Sandflats, Saltmarsh, Soft cliffs and Brackish marsh.

The main plant communities consists of: *Spartina anglica* saltmarsh (SM6), *Puccinellia maritima* saltmarsh (SM13), Transitional low-marsh vegetation with *Puccinellia maritima*, *Salicornia* species and *Suaeda maritima* (SM10), *Honkenya peploides*–*Cakile maritima* strandline community (SD2), *Typha latifolia* swamp (S12), *Phragmites australis*–*Urtica dioica* tall-herb fen (S26).

The estuary consists of large areas of intertidal sand and mudflats and saltmarsh. These provide feeding and roosting sites for large populations of waterfowl. Grazing of the saltmarsh by sheep and cattle adds diversity. Some parts of the northern shoreline are formed of boulder clay cliffs below which there are, in some parts, transitional areas with *Phragmites australis*.

Sefton Coast SAC

EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora Citation for Special Area of Conservation (SAC)

Name: Sefton Coast

Unitary Authority/County: Sefton

SAC status: Designated on 1 April 2005

Grid reference: SD281099

SAC EU code: UK0013076

Area (ha): 4563.97

Component SSSI: Sefton Coast SSSI

Site description:

The Sefton Coast in north-west England displays both rapid erosion and active shifting dunes. A substantial stretch of the dune system is fronted by shifting dunes. Marram *Ammophila arenaria* usually dominates the mobile dunes, amidst considerable areas of blown sand. Where rates of sand deposition decline, lyme grass *Leymus arenarius*, sea-holly *Eryngium maritimum* and cat's-ear *Hypochaeris radicata* occur, with red fescue *Festuca rubra* and spreading meadow-grass *Poa humilis* present on the more sheltered ridges. Sea spurge *Euphorbia paralias* and the nationally scarce dune fescue *Vulpia fasciculata* are frequent, while sea bindweed *Calystegia soldanella* is very local. The area of dunes around Formby Point has been eroding since 1906 while areas north and south of this are accreting (where the nature of the coast allows). The rapid erosion is therefore reducing the area of shifting dunes at Formby, and high, steep eroding dunes abut the beach with extensive areas of blown sand immediately inland.

The sequence of habitats from foredunes to dune grassland and dune slack is extensive, and substantial areas of open dune vegetation remain. There are large areas of semi-fixed and fixed dunes with herbaceous vegetation exhibiting considerable variation from calcareous to acidic.

There are extensive dune slacks dominated by creeping willow *Salix repens* ssp. *Argentea*; it has been estimated that 99ha, or 43% of the total English resource of the main dune slack community dominated by creeping willow occurs at this site. The species also dominates areas of free-draining dune grassland to a much greater extent than at most other UK sites. Despite some urban and recreational development, both successional and geomorphological processes are still active and the structure and function of the site as a whole is still well-conserved. Pools in the hollows and slacks amongst the more fixed dunes are the habitat of a large population of great crested newts *Triturus cristatus*.

Some active formation can still be seen and a variety of successional stages are represented. The sequence from foredunes to dune grassland and dune slack is extensive. The site also contributes to the range and variation of humid dune slack vegetation, being a large and representative base-rich system towards the northern limit for some humid dune slack communities along the west coast of Britain.

A large population of petalwort *Petalophyllum ralfsii* occurs at this site. The plant was first recorded on the Sefton Coast at Ainsdale in 1861 and it is still found within the dune system between Southport and Ainsdale. It seems to prefer damp ground around the edges of dune slacks of fairly recent origin, with the largest populations found in slacks of less than 25 years old. The plant is often found in association with footpaths, where light trampling keeps the ground vegetation sparse; infrequently-used paths or less-trampled edges of pathways seem to be favoured. Although the preferred habitat is short damp turf with plenty of bare patches, populations have been found growing amongst dense marram *Ammophila arenaria* with few other associated species.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- ☐ Atlantic decalcified fixed dunes (*Calluno-Ulicetea*). (Coastal dune heathland)*
- ☐ Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*). (Dunes with creeping willow)
- ☐ Embryonic shifting dunes
- ☐ Fixed dunes with herbaceous vegetation ("grey dunes"). (Dune grassland)*
- ☐ Humid dune slacks
- ☐ Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes"). (Shifting dunes with marram)

Qualifying species: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- ☐ Great crested newt *Triturus cristatus*
- ☐ Petalwort *Petalophyllum ralfsii*

Annex I priority habitats are denoted by an asterisk (*).

This citation relates to a site entered in the Register of European Sites for Great Britain.

Register reference number: UK0013076

Date of registration: 14 June 2005

Signed:

On behalf of the Secretary of State for Environment, Food and Rural Affairs

Appendices

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Mersey Narrows and North Wirral Foreshore SPA

Directive 2009/147/EC on the Conservation of Wild Birds Special Protection Area (SPA)

Name: Mersey Narrows and North Wirral Foreshore.

Unitary Authority/County: Sefton, Wirral.

Boundary of the SPA: The SPA boundary is coincident with the boundaries of North Wirral Foreshore Site of Special Scientific Interest (SSSI) and Mersey Narrows SSSI.

Site description: Mersey Narrows and North Wirral Foreshore is located on the northwest coast of England at the mouths of the Mersey and Dee estuaries. The site comprises intertidal habitats at Egremont foreshore, man-made lagoons at Seaforth and the extensive intertidal flats at North Wirral Foreshore. Egremont is most important as a feeding habitat for waders at low tide whilst Seaforth is primarily a high tide roost site, as well as a nesting site for terns. North Wirral Foreshore supports large numbers of feeding waders at low tide and also includes important high tide roost sites.

Size of SPA: 2,078.41 ha.

Mersey Narrows and North Wirral Foreshore Ramsar

General overview of the site:

The site comprises intertidal habitats at Egremont foreshore on the south bank of the Mersey, man-made saline and freshwater lagoons at Seaforth on the north bank and the extensive intertidal flats at North Wirral Foreshore. Egremont is most important as a feeding habitat for waders at low tide whilst Seaforth is primarily a high tide roost site. The two areas are separated by approximately 2km and have a constant exchange of bird populations. North Wirral Foreshore supports large numbers of feeding waders at low tide and also includes important high tide roost sites, it is an area of intertidal sands and mudflats with embryonic saltmarsh.

General ecological features:

The site comprises intertidal habitats at Egremont foreshore, man-made lagoons at Seaforth and the extensive intertidal flats at North Wirral Foreshore. Egremont is most important as a feeding habitat for waders at low tide whilst Seaforth is primarily a high tide roost site. North Wirral Foreshore supports internationally important numbers of feeding waders at low tide and also includes important high tide roost sites.

B. European sites potentially at risk

Types of project (or potential effects)	Sites to scan for and check	Initial list of potentially affected European sites	Additional context	Final list of European sites selected
1. All projects (Terrestrial, coastal and marine)	Sites within which the project is wholly or partly located	None	This 'test' identifies all the European sites within the footprint of the proposed development.	None
2. Projects that could affect wetland features ⁴⁰	<div>(a) Sites upstream or downstream of the project location in the case of river or estuary sites</div> <div>(b) Open water, peatland, fen, marsh and other wetland sites with relevant hydrological links to the project, irrespective of distance from the project location</div>	<div>Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast</div> <div>None</div>	<p>Effects considered are those associated with the physical presence of built development and the <i>localised</i> effects on surface/groundwater resources and quality, resulting from changes in run-off, sedimentation, erosion etc.</p> <p>Given the location of the proposed development within Liverpool City Centre (it lies around 1km from the nearest European site – Liverpool Bay) and the lack of obvious hydraulic inks, it is considered inconceivable that construction would lead to harmful effects on any of the European sites listed and there is no need for these to be subjected to further scrutiny.</p> <p>Overall, therefore, harmful effects on riverine, estuarine or wetland features can be ruled out of any further consideration in this HRA</p> <p>Note that <i>indirect</i> effects of changes to wastewater disposal are assessed under '7b' below.</p>	None
3. Projects that could affect the marine environment	Sites that could be affected by changes in water quality, currents or flows; or effects on the inter-tidal or sub-tidal areas or the seabed, or	Liverpool Bay Mersey Estuary MNNWF	<p>Effects considered are those of a wider, more strategic scale than (2) above.</p> <p>Given the location of the proposed development within Liverpool City Centre (it lies around 1km from the nearest European site – Liverpool</p>	None

⁴⁰ Note this title has been amended from 'aquatic environment' in the Handbook to 'wetland features' here for greater clarity but includes riverine and estuarine features

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Types of project (or potential effects)	Sites to scan for and check	Initial list of potentially affected European sites	Additional context	Final list of European sites selected
	marine species	Ribble & Alt Sefton Coast	<p>Bay) and the lack of obvious hydraulic inks, the proposed development cannot be expected to have any conceivable effect on any marine features or their associated hydrological, physical or biological processes.</p> <p>Therefore, effects on the marine environment can be ruled out of any further consideration.</p>	
4. Projects that could affect the coast	Sites in the same coastal 'cell', or part of the same coastal ecosystem, or where there are interrelationships with or between different physical coastal processes	<p>Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast</p>	<p>Effects considered are those of a wider, more strategic scale than (2) above.</p> <p>Given the location of the proposed development within Liverpool City Centre (it lies around 1km from the nearest European site – Liverpool Bay) and the lack of obvious hydraulic inks, the proposed development cannot be expected to have any conceivable effect on any coastal features or their associated hydrological, physical or biological processes.</p> <p>Therefore, effects on the coastal environment can be ruled out of any further consideration.</p>	None

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Types of project (or potential effects)	Sites to scan for and check	Initial list of potentially affected European sites	Additional context	Final list of European sites selected
5. Projects that could affect mobile species	Sites whose qualifying features include mobile species which may be affected by the project irrespective of the location of the project or whether the species would be in or out of the site when they might be affected	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt	<p>This considers <i>direct</i> impacts of the proposed development on mobile species within or outside the designated site. It therefore focuses on potential <i>direct</i> impacts of the development on functionally-linked land associated with high-tide roosts or alternative feeding sites for wintering and passage bird populations of the European sites listed.</p> <p>Given the location of the proposed development within Liverpool City Centre (it lies around 1km from the nearest European site – Liverpool Bay), the proposed development cannot be expected to have any conceivable effect on any mobile species.</p> <p>Therefore, effects on the coastal environment can be ruled out of any further consideration.</p> <p>Note that <i>indirect</i> effects on mobile species, through disturbance, on functionally-linked land beyond the development site, is considered under '6, Recreational pressure', below.</p>	None
6. Projects that could increase recreational pressure on European sites where qualifying features are sensitive to such pressure	(a) European sites within which the project would be wholly or partly located	None	<p>There are no European sites within the footprint of the proposed development.</p> <p>Therefore, direct effects on European sites from increased recreational pressure can be ruled out of any further scrutiny.</p>	None
	(b) Such European sites within an agreed zone of influence or other reasonable and evidence-based travel distance of the project location that may be affected by local recreational or other visitor pressure generated by the project	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	<p>The proposed development has the clear potential to increase recreational pressure along the coastline of the wider Liverpool City Region and the European sites present.</p> <p>Therefore, harmful effects on all the European sites listed cannot be ruled out and further scrutiny, in the form of a formal screening exercise is required.</p>	Dee Estuary Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast

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Types of project (or potential effects)	Sites to scan for and check	Initial list of potentially affected European sites	Additional context	Final list of European sites selected
	(c) Such European sites within an agreed zone of influence or other evidence-based longer travel distance of the project, which are major (regional or national) visitor attractions such as European sites which are National Nature Reserves where public visiting is promoted, sites in National Parks, coastal sites and sites in other major tourist or visitor destinations	Peak District Martin Mere	<p>Given the distances involved, it is considered inconceivable that increased recreational pressure from the proposed development alone and in-combination with other plans and projects could have a measurable effect on the Peak District. Martin Mere is closer, but access and visitor behaviour are carefully managed by the Wildfowl and Wetlands Trust.</p> <p>Therefore, harmful effects on distant but popular European sites from increased recreational pressure can be ruled out of any further scrutiny.</p>	None
7. Projects that would increase the amount of development	(a) Sites that are used for, or could be affected by, water abstraction irrespective of distance from the project	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	<p>Although the European sites within the area of search all support wetland features (or features susceptible to changes in water levels brought about by changes to the water abstraction regime) the proposed development does not comprise any such activity.</p> <p>Therefore, effects from changes to the abstraction regime on all European sites listed can be ruled out of any further scrutiny</p> <p>For the purposes of this exercise, dewatering as a consequence of construction (which could have similar effects as water abstraction) is included in 2(a).</p>	None

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Types of project (or potential effects)	Sites to scan for and check	Initial list of potentially affected European sites	Additional context	Final list of European sites selected
	(b) Sites used for, or could be affected by, discharge of effluent from wastewater treatment works or other waste management streams serving the project, irrespective of distance from the project	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	<p>Regional water companies have a legal duty to provide wastewater treatment for new development and the proposal itself will have to conform to current legislation and best practice in terms of other waste streams. There is no reason to doubt the ability of these standard pollution control measures to remove the threat of pollution to the local environment from both surface and sub-surface pathways.</p> <p>As these measures are required as a matter of best practice and law to deliver a wide range of environmental safeguards and would be implemented regardless of the presence of the European sites, this approach remains consistent with the People Over Wind decision precluding the need for further (appropriate) assessment.</p> <p>Therefore, harmful effects from the discharge of wastewater and other waste streams on all European sites listed can be ruled out of any further scrutiny.</p> <p>For the purposes of this exercise localised pollution as a consequence of construction and/or operation (which could have similar effects) is included in criterion 2(a).</p>	None
	(c) Sites that could be affected by the provision of new or extended transport or other infrastructure	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	<p>No such infrastructure proposed.</p> <p>Therefore, harmful effects from the construction of new infrastructure on all European sites listed can be ruled out of any further scrutiny.</p>	None

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Types of project (or potential effects)	Sites to scan for and check	Initial list of potentially affected European sites	Additional context	Final list of European sites selected
	(d) Sites that could be affected by increased deposition of air pollutants arising from the proposals, including emissions from significant increases in traffic	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	<p>New development has the potential to increase both traffic and nitrogen deposition from vehicle exhausts.</p> <p>Drawing on the air pollution assessment of the HRA of the emerging Liverpool City Council Local Plan (AECOM, 2019) the potential for this was screened out for all for all European sites listed. This was based on an in-combination assessment of all proposed development in Liverpool and surrounding local authorities.</p> <p>Therefore, harmful effects from this development can also be ruled out.</p> <p>Therefore, harmful effects from increases in air pollution on all the European sites listed can be ruled out of any further scrutiny.</p>	None
8 Projects comprising linear developments or infrastructure	Sites within a specified distance from the centre line of the proposed route (or alternative routes), the distance may be varied for differing types of site / qualifying features and in the absence of established good practice standards, distance(s) to be agreed by the statutory nature conservation body	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	<p>No such infrastructure proposed.</p> <p>Therefore, harmful effects from the construction of new infrastructure on all European sites listed can be ruled out of any further scrutiny.</p>	None
9. Projects that introduce new activities or new uses into the marine, coastal or terrestrial environment	Sites considered to have qualifying features potentially vulnerable or sensitive to the effects of the new activities proposed by the project	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	<p>The proposed development will not introduce new activities into the marine, coastal or terrestrial environment beyond those already present.</p> <p>Therefore, harmful effects from the introduction of new activities on all European sites listed can be ruled out of any further scrutiny.</p>	None

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HRA of Great George Street Development (August 2019)

Types of project (or potential effects)	Sites to scan for and check	Initial list of potentially affected European sites	Additional context	Final list of European sites selected
10. Projects that could change the nature, area, extent, intensity, density, timing or scale of existing activities or uses	Sites considered to have qualifying features potentially vulnerable or sensitive to the effects of the changes to existing activities proposed by the project	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	The proposed development is likely to increase existing levels of recreational pressure on the European sites listed. However, this is best considered under (#6b) 'recreational pressure'. Therefore, it is not considered further here. Therefore, harmful effects from an increase in the intensity of existing activities on all European sites listed can be ruled out of any further scrutiny (as they will be considered under (#6b)).	None
11. Projects that could change the quantity, quality, timing, treatment or mitigation of emissions or discharges to air, water or soil	Sites considered to have qualifying features potentially vulnerable or sensitive to the changes in emissions or discharges that could arise as a result of the project, over and above those already identified	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	Given the location of the proposed development within Liverpool City Centre (it lies around 1km from the nearest European site – Liverpool Bay), it is considered inconceivable that construction/operation would introduce or lead to changes in emissions/discharges beyond those already considered. Therefore, effects from other emissions/discharges on all the European sites listed can be ruled out of any further scrutiny.	None
12. Projects that could change the quantity, volume, timing, rate, or other characteristics of biological resources harvested, extracted or consumed	Sites whose qualifying features include the biological resources which the project may affect, or whose qualifying features depend on the biological resources which the project may affect, for example as prey species or supporting habitat or which may be disturbed by the harvesting, extraction or consumption	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	No such activities proposed. Therefore, harmful effects on biological resources that might affect qualifying features on all European sites listed can be ruled out of any further scrutiny	None

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Types of project (or potential effects)	Sites to scan for and check	Initial list of potentially affected European sites	Additional context	Final list of European sites selected
13. Projects that could change the quantity, volume, timing, rate, or other characteristics of physical resources extracted or consumed	Sites whose qualifying features rely on the physical resources which the project may affect, for example, as habitat or a physical environment on which habitat may develop or which may be disturbed by the extraction or consumption	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	No such activities proposed. Therefore, harmful effects on physical resources that might affect qualifying features on all European sites listed can be ruled out of any further scrutiny	None
14. Projects which could introduce or increase, or alter the timing, nature or location of disturbance to species	Sites whose qualifying features are considered to be potentially sensitive to disturbance, for example as a result of noise, activity or movement, or the presence of disturbing features that could be brought about by the project	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	This considers direct impacts of the proposed development on species within or outside the designated site. Given the location of the proposed development within Liverpool City Centre (it lies around 1km from the nearest European site – Liverpool Bay), it is considered inconceivable that construction/operation would lead to changes in disturbance from light or noise pollution, or movement. Therefore, effects on species from light and noise pollution on all the European sites listed can be ruled out of any further consideration.	None
15. Projects which could introduce or increase or change the timing, nature or location of light or noise pollution	Sites whose qualifying features are considered to be potentially sensitive to the effects of changes in light or noise that could be brought about by the project	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	This considers direct impacts of the proposed development on species within or outside the designated site. Given the location of the proposed development within Liverpool City Centre (it lies around 1km from the nearest European site – Liverpool Bay), it is considered inconceivable that construction/operation would introduce or lead to disturbance from light or noise pollution. Therefore, effects on species from light and noise pollution on all the European sites listed can be ruled out of any further consideration.	None

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Types of project (or potential effects)	Sites to scan for and check	Initial list of potentially affected European sites	Additional context	Final list of European sites selected
16. Projects which could introduce or increase a potential cause of mortality of species	Sites whose qualifying features are considered to be potentially sensitive to the source of new or increased mortality that could be brought about by the project	Liverpool Bay Mersey Estuary MNNWF Ribble & Alt Sefton Coast	This considers direct impacts of the proposed development on species within or outside the designated site. No such activities are proposed. Therefore, effects from the increased mortality of species on all the European sites listed can be ruled out of any further scrutiny.	None

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