



**LIVERPOOL
CITY REGION**
COMBINED AUTHORITY

Liverpool City Region Combined Authority

FOURTH LOCAL TRANSPORT PLAN

Habitats Regulations Assessment - Stage 1
Screening





Liverpool City Region Combined Authority

FOURTH LOCAL TRANSPORT PLAN

Habitats Regulations Assessment - Stage 1 Screening

TYPE OF DOCUMENT (VERSION) PUBLIC

PROJECT NO. UK-70099325

OUR REF. NO. 001

DATE: SEPTEMBER 2024

WSP

1st Floor Station House
Tithebarn Street, Exchange Station
Liverpool
L2 2QP

Phone: +44 151 331 8100

[WSP.com](https://www.wsp.com)



QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	First Issue	Final for Consultation		
Date				
Prepared by	Soham Dixit Owen Peat	Soham Dixit		
Signature				
Checked by	Fiona Convertino-Carson Kate Taylor	Fiona Convertino-Carson Kate Taylor		
Signature				
Authorised by	Joanna Rochfort	Joanna Rochfort		
Signature				
Project number	UK-70099325			
Report number	HRA			
File reference	\\uk.wspgroup.com\central data\Projects\70099xxx\70099325 - LCRCA LTP4 Integrated Impact Assessment			

CONTENTS

1	INTRODUCTION	1
1.2	REPORT FRAMEWORK	2
1.3	OBJECTIVES OF THE STRATEGY	2
2	RELEVANT POLICY, LEGISLATION, CASE LAW AND GUIDANCE	4
2.1	LEGISLATIVE BACKGROUND	4
2.2	STAGES OF HABITATS REGULATIONS ASSESSMENT	5
2.3	RELEVANT CASE LAW	6
	THE WEALDEN JUDGEMENT	6
	THE PEOPLE OVER WIND CASE	7
	CJEU RULING IN THE NETHERLANDS NITROGEN AND AGRICULTURE CASES C-293/17 AND C-294/17	7
2.4	NATIONAL PLANNING POLICY	7
	NATIONAL PLANNING POLICY FRAMEWORK	7
2.5	RELEVANT GUIDANCE (PRIMARY RESOURCES)	8
	NATURAL ENGLAND'S INTERNAL GUIDANCE	8
	IAQM'S GUIDE TO THE ASSESSMENT OF AIR QUALITY IMPACTS ON DESIGNATED NATURE CONSERVATION SITES	9
	CIEEM ADVISORY NOTE: ECOLOGICAL ASSESSMENT OF AIR QUALITY IMPACTS	9
	UPDATED DMRB (LA 115 – HABITATS REGULATIONS ASSESSMENT)	9
	ADDITIONAL GUIDANCE	10
3	METHODOLOGY	11
4	REVIEW RESULTS	14
4.1	IS HRA REQUIRED?	14
5	REVIEW OF HABITATS SITES	15

5.2	HABITATS SITES	15
5.3	AIR QUALITY CRITICAL LOADS AND LEVELS	16
	Baseline Conditions	17
5.4	INFORMATION RELATING OTHER POTENTIAL EFFECTS ON HABITATS SITES	18
6	APPROACH TO STAGE 1 SCREENING	22
6.2	AIR QUALITY INPUT	22
6.3	IN-COMBINATION ASSESSMENT	23
7	HRA STAGE 1 SCREENING OF THE DRAFT LTP4	25
7.2	AIR QUALITY COMMENTARY	37
8	CONCLUSIONS	38
	FIGURES	40

TABLES

Table 4-1 – Is HRA required?	14
Table 5-1 - Relevant NO _x and NH ₃ Critical Levels for the Protection of Vegetation and Ecosystems	17
Table 5-2 - Pressures and threats listed on Habitats site's SIPs	19
Table 6-1 - Types of plans and projects considered at “in-combination” assessment	Error!
Bookmark not defined.	
Table 7-1 – Stage 1 screening assessment	26

FIGURES

Figure 1 – Flow chart including Screening and Appropriate Assessment Stages in the HRA process (after European Commission, 2018)	12
Figure 2 - Habitats Sites within 10km	40
Figure 3 - Habitats Sites and Roads Within 200m	40

APPENDICES

APPENDIX A

LEGISLATIVE BACKGROUND, POLICY CONTEXT AND CEJU RULINGS

APPENDIX B

HABITATS SITES DETAILS, INCLUDING QUALIFYING FEATURES AND
CONSERVATION OBJECTIVES

APPENDIX C

APIS INFORMATION FOR SPA AND SAC SITES WHERE AIR POLLUTION IS LISTED AS
A PRESSURE OR THREAT

1 INTRODUCTION

- 1.1.1. The Local Transport Act (2000) as amended by the Local Transport Act (2008) requires the Liverpool City Region Combined Authority (LCRCA) to produce a Local Transport Plan Strategy (LTP). The Liverpool City Region (LCR) Draft Local Transport Plan (“*People, Places Movement*” – *Doing Things Differently 2025 – 2040*) proposes an approach for addressing current and future transport issues in the City Region.
- 1.1.2. WSP has been appointed by LCRCA to undertake the Habitats Regulations Assessment (HRA) for the Draft LTP. Stage 1 (Screening), as presented within this report, represents the first step in the HRA process. The focus of the HRA process is on the potential for adverse effects as a result of the LTP policies on the integrity of European nature conservation sites.
- 1.1.3. It is a matter of Government policy (National Planning Policy Framework [NPPF]¹ paragraph 178) that sites designated under the 1971 Ramsar Convention for their internationally important wetlands (commonly known as Ramsar sites) are also considered in the same way as European sites. Together, these sites are referred to as ‘Habitats sites’ in the NPPF and in this report.
- 1.1.4. Under The Conservation of Habitats and Species Regulations 2017² (as amended) (the ‘Habitats Regulations’) ‘Competent Authorities’ must assess plans and projects for their potential to cause Likely Significant Effects (LSE) on Habitats sites. Where the plan or project may lead to LSE it must be subject to an Appropriate Assessment (AA) to determine whether there will be adverse effects to any Habitats sites. Any plan or project that would lead to adverse effects on the integrity of Habitats site(s) cannot be permitted without meeting strict additional tests.
- 1.1.5. The Stage 1 (Screening) presented herein comprises a desk-based review of relevant information, including biodiversity information and relevant HRA reporting (relating to other relevant plans and projects). The exercise identified all relevant Habitats sites where LSE could occur, particularly in relation to air quality changes and recreation pressures associated with the anticipated LTP policies. This exercise included the identification of all Habitats sites which fall within 200m of a road and which have sensitivity to changes in nitrogen oxide (NO_x) and ammonia (NH₃) concentrations and Nutrient Nitrogen deposition (N Dep) and/or where source-effects pathways are identified. The information captured here has formed part of the evidence base for this Stage 1 HRA (Screening) and subsequent HRA stages (including, if deemed necessary, a Stage 2 AA (see Methodology Section 2)).

¹ Ministry of Housing, Communities and Local Government (2023) National Planning Policy Framework. Available at: https://assets.publishing.service.gov.uk/media/669a25e9a3c2a28abb50d2b4/NPPF_December_2023.pdf (Accessed April 2024)

² The Conservation of Habitats and Species Regulations 2017. Available at: <http://www.legislation.gov.uk/uksi/2017/1012/contents/made> (Accessed April 2024)

1.2 REPORT FRAMEWORK

- 1.2.1. This HRA screening report has been produced alongside the Sustainability Appraisal (SA) that incorporates the requirement of a Strategic Environmental Assessment (SEA) for the draft LTP4 policies.
- 1.2.2. At a screening level, this report will ensure that all HRA-related considerations are fully integrated into the LCR Draft LTP4 as it is developed.
- 1.2.3. This report details:
- the HRA process and methodology for assessment;
 - the relevant Habitats sites within the Zone of Influence (ZoI) for the LCR Draft LTP4;
 - the challenges of the LCR Draft LTP4 and how these may impact upon relevant Habitats sites, and;
 - the screening of LSE (Stage 1) of the LCR Draft LTP4.
- 1.2.4. It should be noted that this HRA has been based solely upon the LCR Draft LTP4 and does not include a detailed analysis of any projects that may arise as a result of the Strategy.

1.3 OBJECTIVES OF THE STRATEGY

- 1.3.1. As communicated by LCRCA, the implementation and development of a sustainable transport system will help bring about opportunities to enhance the City Region. Consideration must be given throughout the development of the LTP4 to the following overarching purpose in order to achieve this:
- “This LTP will help to inform and shape decisions for the future of travel in the Liverpool City Region. It helps us speak with one voice on transport and on how transport supports our other priorities as a city region. Our LTP will be important in drawing down and allocating the different funds needed to help deliver transport from Government, delivery bodies and third parties. It is consistent with Government guidance and is informed by, and shapes, Liverpool City Region Combined Authority (LCRCA) policies and strategies”.*
- 1.3.2. This is set within the context of The Vision, as follows:
- “Clean, safe and accessible transport for moving people and goods***
- To plan and deliver a future-facing, clean, safe and accessible transport system built to last. It will focus on moving people, goods and freight around the region in a way that delivers our local ambitions. Particular focus will be on a net zero carbon emitting city region by 2035 or sooner.”*
- 1.3.3. In order to deliver the Vision, the draft LTP4 sets out five high level outcomes or ‘goals’ that it aims to achieve, each of which is supported by a series of detailed policies and interventions. The five goals comprise:
- Goal 1: Support good, clean job growth and opportunity for all.
 - Goal 2: Achieve net-zero carbon and an improve environment.
 - Goal 3: Improve health and quality of life.
 - Goal 4: Transport that’s well maintained and tough.
 - Goal 5: Plan and respond to uncertainty and change and be innovative.

- 1.3.4. In addition, it establishes eight core principles that have been developed to support the goals and drive delivery of the policies, consisting of:
- Principle 1: A vision led approach.
 - Principle 2: We will apply the five goals equally.
 - Principle 3: Transport decisions based on clear need and evidence.
 - Principle 4: Transport must support placemaking.
 - Principle 5: Adopting a sustainable movement hierarchy in all we do.
 - Principle 6: Guided by our commitment to inclusivity, accessibility and social value.
 - Principle 7: Work with others to promote and deliver the LTP.
 - Principle 8: A rolling programme of innovative transport investment.
- 1.3.5. The policies underpinning each of the five goals are detailed in Table 7-1.

2 RELEVANT POLICY, LEGISLATION, CASE LAW AND GUIDANCE

2.1 LEGISLATIVE BACKGROUND

- 2.1.1. Under the Habitats Regulations, 'Competent Authorities' must assess plans and projects for their potential to cause LSE on Habitats site(s). Where the plan or project may lead to LSE, it must be subject to an AA to determine whether there will be adverse effects to any Habitats site(s). Any plan or project that would lead to adverse effects on the integrity of Habitats site(s) cannot be permitted without meeting strict additional tests.
- 2.1.2. Defra guidance (2021)³ states that Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) in the UK no longer form part of the EU's Natura 2000 ecological network. The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 have created a national site network on land and at sea, including both the inshore and offshore marine areas in the UK. The national site network includes:
- existing SACs and SPAs; and
 - new SACs and SPAs designated under these Regulations.
- 2.1.3. Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new national site network.
- 2.1.4. Maintaining a coherent network of protected sites with overarching conservation objectives is still required in order to:
- fulfil the commitment made by government to maintain environmental protections; and
 - continue to meet our international legal obligations, such as the Bern Convention, the Oslo and Paris Conventions (OSPAR), Bonn and Ramsar Conventions.
- 2.1.5. This report presents information to enable the screening assessment required as part of Stage 1 of the HRA process, to establish whether or not the Draft LTP4 will have a LSE upon the national site network and Ramsar sites (Habitats sites).
- 2.1.6. The use of the term Favourable Conservation Status (FCS) is not amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and the term still has the meaning given by Article 1 of the Habitats Directive. Defra (2021)³ does however note that "an appropriate authority is only responsible for managing and adapting the national site network to secure FCS of a feature proportionately to the importance of the UK within the feature's natural range". The 'Habitats Directive' 92/43/EEC (2018) provides further interpretation of the meaning of 'favourable conservation status' within Article 1 parts a, e and i as below.

³ Department for Environment Food and Rural Affairs (2021). Changes to the Habitats Regulations 2017. Available at: <https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017>. (Accessed April 2024)

‘(a) conservation means a series of measures required to maintain or restore the natural habitats and the populations of species of wild fauna and flora at a favourable status as defined in (e) and (i);.....

(e) conservation status of a natural habitat means the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species within the territory referred to in Article 2. The conservation status of a natural habitat will be taken as "favourable" when:

- *its natural range and the areas it covers within that range are stable or increasing, and*
- *the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and*
- *the conservation status of its typical species is favourable as defined in (i);*

(i) conservation status of a species means the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory referred to in Article 2; The conservation status will be taken as "favourable" when:

- *population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and*
- *the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and*
- *there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis’.*

2.2 STAGES OF HABITATS REGULATIONS ASSESSMENT

2.2.1. Guidance on managing Natura 2000 sites and the provisions of Article 6 of the Habitats Directive sets out the step-wise approach which should be followed to enable Competent Authorities to discharge their duties under the Habitats Directive and provides further clarity on the interpretation of Articles 6 (3) and 6 (4), as presented below (with additional interpretation in brackets).

‘Article 6(3) defines a step-wise procedure for considering plans and projects.

a) The first part of this procedure consists of a pre-assessment stage (‘screening’) to determine whether, firstly, the plan or project is directly connected with or necessary to the management of the site, and secondly, whether it is likely to have a significant effect on the site; it is governed by Article 6(3), first sentence. *(Often commonly referred to in practice as HRA Stage 1 – Screening)*

*b) The second part of the procedure, governed by Article 6(3), second sentence, relates to the appropriate assessment** and the decision of the competent national authorities. (A simplified flow chart of this procedure is presented in Annex II at the end of the guidance document). **(Often commonly referred to in practice as HRA Stage 2 – Appropriate Assessment)*

A third part of the procedure (governed by Article 6(4)) comes into play if, despite a negative assessment, it is proposed not to reject a plan or project but to give it further consideration. In this case Article 6(4) allows for derogations from Article 6(3) under certain conditions.

The applicability of the procedure, and the extent to which it applies, depend on several factors, and in the sequence of steps, each step is influenced by the previous step. The order in which the steps are followed is therefore essential for the correct application of Article 6(3)'.

- 2.2.2. As set out in Regulation 3 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, where Natura 2000 sites are referenced in previously issued guidance, this should be interpreted as relating to the national site network but does not otherwise affect guidance as it applied, before EU exit day.
- 2.2.3. Under the Habitats Regulations in England and Wales, the approach taken to the stage referred to as 'derogation' follows the same fundamental steps as established above in EC Guidance, comprising consideration of alternative solutions, imperative reasons of overriding public importance (IROPI) and compensatory measures.

2.3 RELEVANT CASE LAW

- 2.3.1. There are a number of recent Court of Justice of the European Union (CJEU) rulings which are relevant to this assessment, and these are summarised below for information. Further information is provided within Appendix A. As the general provisions for the protection of Habitats sites and the procedural requirements to undertake HRA to assess the implications of plans or projects for Habitats sites remain, this previous case law established prior to the UK's exit from the EU is considered to apply unless superseded by the judgement of an appropriate UK court.

THE WEALDEN JUDGEMENT

- 2.3.2. The Wealden Judgement⁴, handed down in March 2017, has introduced additional complexities into the assessment process in relation to in-combination and cumulative effects.
- 2.3.3. Prior to this Judgement, it was deemed that air quality impacts on Habitats sites need only be considered alongside roads where the traffic growth associated with the individual plan or project being assessed exceeded specified screening criteria. These criteria were typically based on changes in vehicle movements and taken from the Design Manual for Roads and Bridges (DMRB, HA207/07⁵) which has been subsequently withdrawn, namely:
 - Increases of 1,000 vehicles per day or 200 Heavy Goods Vehicles per day (as Annual Average Daily Traffic (AADT)).
- 2.3.4. The Wealden Judgement found that the application of the criteria to the traffic growth associated with a single Local Plan was unsound on the basis that two Local Plans collectively contributing more than 1,000 AADT could lead to a potentially significant effect. The Judge determined that further assessment of air quality impacts on Habitats sites should have been carried out and quashed part of the Local Plan that would have led to an in-combination exceedance of 1,000

⁴ Judgment in Wealden District Council v. Secretary of State for Communities and Local Government, Lewes District Council and South Downs National Park Authority [2017] EWHC 351 (Admin) DATE: 21 Mar 2017.

⁵ *Design Manual for Roads and Bridges (DMRB), Volume 11, Section 3, Part 1 (HA207/07)*. Withdrawn, but available at: <https://standardsforhighways.co.uk/dmr/archive/search/df0c77ed-887b-4c84-be0e-000fe18545ae>

AADT.

THE PEOPLE OVER WIND CASE

- 2.3.5. The CJEU's decision in the matter of People Over Wind and Sweetman v Coillte Teoranta (C-323/17)⁶ (hereafter referred to as the 'Sweetman Case'), states that: *'Article 6(3) must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site.'*
- 2.3.6. In the new judgement, the CJEU concluded that mitigation measures could not be considered as part of the project and thus that the screening stage of HRA should not take account of them. This will undoubtedly be tested further in the courts in coming months and years, but the key issue is whether the mitigation measures proposed can genuinely be considered as part of the project, in that they would happen in any case, irrespective of the Habitats site. If not, then they should be considered mitigation measures and considered at the AA stage of HRA.
- 2.3.7. This is an emerging issue for local authorities and means that, alongside the Wealden judgement and the potential for 'in-combination' effects, the fact that HRA Screening should not take into account measures targeted at mitigating effects on Habitats sites, full AA is more frequently required.

CJEU RULING IN THE NETHERLANDS NITROGEN AND AGRICULTURE CASES C-293/17 AND C-294/17

- 2.3.8. The final Court Judgement in relation to these two cases was handed down on 7 November 2018. The judgement relates to the assessment of agricultural activities under the Habitats Regulations but has potential implications for the assessment of changes in nitrogen (N) deposition in relation to air quality. Notably, the CJEU ruled that:
- An 'appropriate assessment' may only take into account the existence of Article 6(1) 'conservation measures', or Article 6(2) 'preventive measures', or specific measures adopted for a conservation programme, or 'autonomous' measures not in the programme, if the expected benefits of those measures are certain at the time of the assessment.
 - National measures such as procedures for the surveillance and monitoring of farms whose activities cause nitrogen deposition and the possibility of imposing penalties, up to and including the closure of those farms, are sufficient for the purposes of complying with Article 6(2).

2.4 NATIONAL PLANNING POLICY

NATIONAL PLANNING POLICY FRAMEWORK

- 2.4.1. In relation to biodiversity and the Draft LTP4, the following paragraphs in the document are relevant:

⁶ Judgement of the Court 12 April 2018, People Over Wind, Peter Sweetman, Coillte Teoranta
<https://curia.europa.eu/juris/document/document.jsf?jsessionid=B02FE6F4F1C61308615DBBDF079EE5F4?text=&docid=200970&pageIndex=0&doclang=en&mode=lst&dir=&occ=first&part=1&cid=11190634>

- Paragraph 180, which states ‘*Planning policies and decisions should contribute to and enhance the natural and local environment by:*
 - (a) *protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
 - (b) *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
 - (c) *maintaining the character of the undeveloped coast, while improving public access to it where appropriate;*
 - (d) *minimising impacts on, and providing net gains for, biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
 - (e) *preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*
 - (f) *remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.’*

- Paragraph 181 which states ‘*Plans should:*

distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.’

2.5 RELEVANT GUIDANCE (PRIMARY RESOURCES)

NATURAL ENGLAND’S INTERNAL GUIDANCE

- 2.5.1. In June 2018, Natural England published guidance⁷ on their approach to advising Competent Authorities on the assessment of road traffic emissions under the Habitats Regulations. The document draws upon Annex F of the DMRB (now withdrawn) but takes into account the Wealden Judgement and need to assess ‘in-combination’ effects on Habitats sites as a result of air pollution.
- 2.5.2. The guidance provides a framework around the assessment of road traffic emissions and subsequent effects on Habitats sites. Notably:
 - Step 1 – Does the proposal give rise to emissions which are likely to reach a Habitats site;
 - Step 2 – Are there qualifying features within 200m of a road sensitive to air pollution;

⁷ Natural England (June 2018) Natural England’s approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (Accessed on 31/03/2022 at: <http://publications.naturalengland.org.uk/publication/4720542048845824>)

- Step 3 – Could the sensitive qualifying features of the site be exposed to emissions; and
- Step 4 – Application of the Screening Thresholds:
 - Step 4a: apply the threshold alone;
 - Step 4b: apply the threshold in-combination with emissions from other road traffic plans and projects; and
 - Step 4c: apply the threshold in-combination with emissions from other non-road plans and projects.
- Step 5: Advise on the need for AA where thresholds are exceeded, either alone or in-combination.

2.5.3. The relevant thresholds in relation to Step 4 are as follows:

- Changes in AADT of 1,000 vehicles a day (or more); and/or
- Changes of 1% of the relevant Critical Load and/or Level as a result of the plan/project.

IAQM'S GUIDE TO THE ASSESSMENT OF AIR QUALITY IMPACTS ON DESIGNATED NATURE CONSERVATION SITES

2.5.4. The Guide to the Assessment of Air Quality Impacts on Designated Nature Conservation Sites (IAQM, May 2020)⁸ provides advice for ecologists relating to air quality assessments (AQAs), to evaluate the effects of air pollution on habitats and species, by increasing their understanding of the information provided by air quality specialists. The Guide focusses on the AQA process and no specific detail on the subsequent stage of the overall process, i.e. the assessment of the effects that air quality impacts may have on habitats and species, is provided in this guidance.

CIEEM ADVISORY NOTE: ECOLOGICAL ASSESSMENT OF AIR QUALITY IMPACTS

2.5.5. This guidance⁹ from the Chartered Institute of Ecology and Environmental Management (CIEEM) is intended to take ecologists (and air quality specialists) through the issues that they should consider in order to make an informed judgement as to the ecological effects of changes in pollution concentrations and deposition rates. The approaches set out build on the advice and guidance from Natural England and IAQM but focus on the ecologist role to interpret the numerical output of air quality assessments to reach evidence-based conclusions on ecological significance.

UPDATED DMRB (LA 115 - HABITATS REGULATIONS ASSESSMENT)

2.5.6. The DMRB document LA 115 - Habitats Regulations Assessment¹⁰ states that HRA shall include systematic collection, assessment, and reporting of the implications of highways projects on Habitats sites and shall be implemented forthwith on all projects involving HRA on the motorway and

⁸ Holman et al (2020). *A guide to the assessment of air quality impacts on designated nature conservation sites – v1.1* Available at: <https://iaqm.co.uk/text/guidance/air-quality-impacts-on-nature-sites-2020.pdf>

⁹ CIEEM (January 2021) *Advisory Note: Ecological Assessment of Air Quality Impacts*. Available at: <https://cieem.net/resource/advisory-note-ecological-assessment-of-air-quality-impacts/#:~:text=Advisory%20Note%3A%20Ecological%20Assessment%20of%20Air%20Quality%20Impacts.,of%20changes%20in%20pollution%20concentrations%20and%20deposition%20rates> .

¹⁰ Highways England (November 2019) Design Manual for Roads and Bridges, LA115 – Habitats Regulations Assessment. Available at: <https://standardsforhighways.co.uk/dmrB/search/e2fdab58-d293-4af7-b737-b55e08e045ae> .

all-purpose trunk roads. In addition to identifying the habitats site designations to be considered within HRA and the format of reporting, the document sets out (principles and purpose) that:

- The precautionary principle shall be applied in reporting through all HRA stages.
- Recourse to the precautionary principle may be relevant when there:
 1. are "potentially negative effects"; or
 2. is "insufficiency of the data, which makes it impossible to determine with sufficient certainty the risk in question".
- Site conservation objectives should prevail where there is uncertainty.
- Adverse effects should be reported in the HRA in the absence of evidence to the contrary.

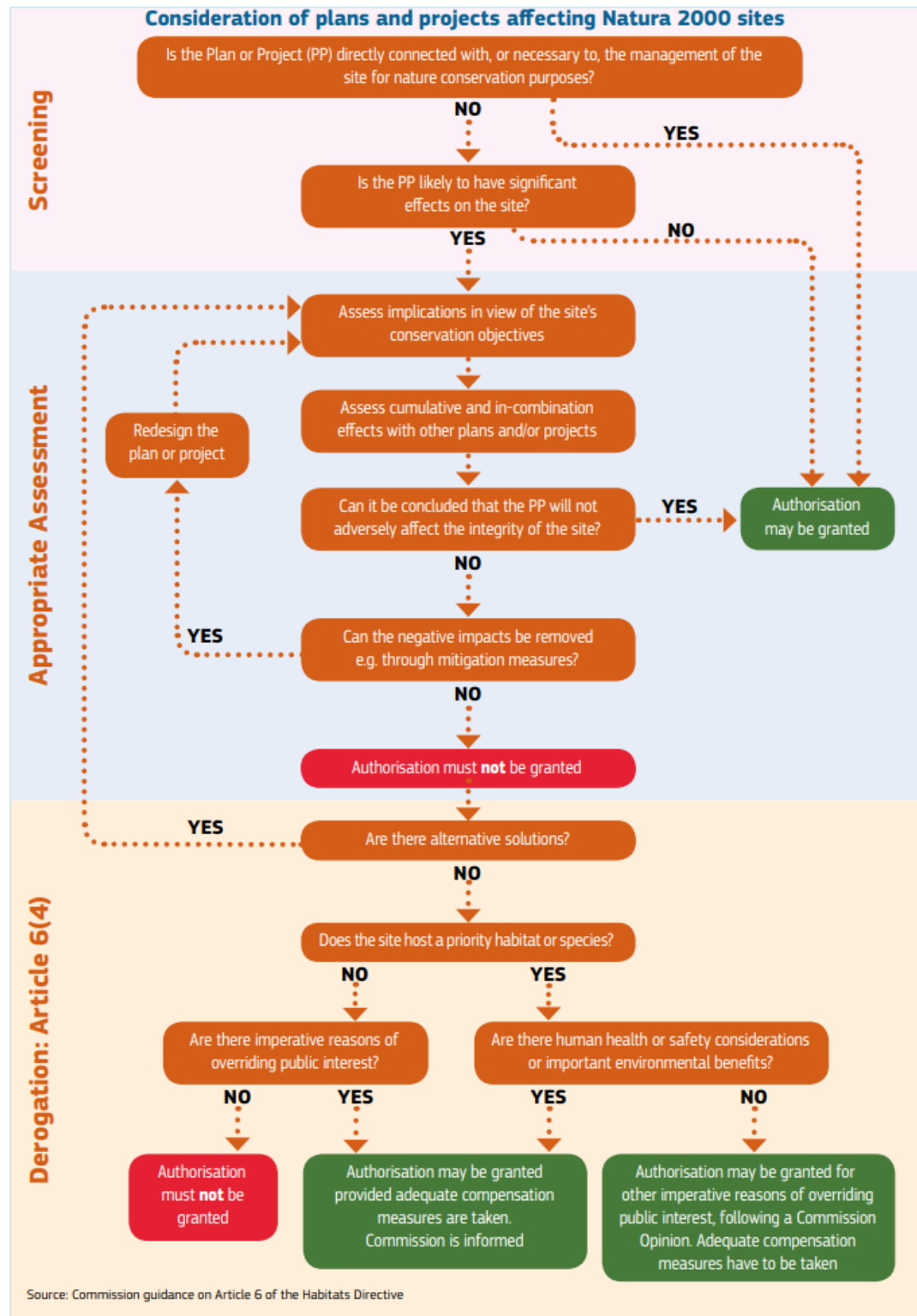
ADDITIONAL GUIDANCE

- 2.5.7. Multiple sources of guidance are available to HRA practitioners which are specific to interpretation of assessment processes or technical areas of assessment. Where relevant, these are cited within this report.

3 METHODOLOGY

- 3.1.1. This report presents the findings of the screening undertaken as part of Stage 1 of the HRA process to establish whether or not the likely impacts of the Draft LTP4 could have LSE on Habitats sites.
- 3.1.2. This document provides this information by undertaking the following steps:
- determining whether the plan is directly connected with, or necessary for, the management of applicable Habitats sites;
 - describing the plan impacts that may have the potential for significant effects upon applicable Habitats sites; and
 - Description of the potential pathways of impacts, both alone and in-combination with other plans and projects.
- 3.1.3. The precautionary principle is applied at all stages of the HRA process. In relation to screening, this means that plans and projects where effects are considered likely and those where uncertainty exists as to whether effects are likely to be significant must be subject to the second stage of the HRA process, AA.

Figure 1 – Flow chart including Screening and Appropriate Assessment Stages in the HRA process (after European Commission, 2018)



3.1.4. The first part of the screening is a review to establish whether the Draft LTP4 should be subject to HRA.

- 3.1.5. The second part comprises the information gathering stage and in particular the identification of Habitats sites which will likely require consideration and on which background information is collated. This information includes the qualifying features of these sites, the conservation objectives and the sensitivities of those sites.
- 3.1.6. The final element of the information gathering stage is to review the availability of relevant data sets and sources which will form the evidence base of the assessment of the draft LTP4 Policies (which are set within each of the five LTP Goals) alone and in-combination with other relevant plans and projects.

4 REVIEW RESULTS

4.1 IS HRA REQUIRED?

- 4.1.1. The review looked to specifically answer each of the questions set out in the HRA review methodology. It should be noted that the level of detail of the Draft LTP4 available at the time of this review only allows for an anticipated assessment of the need for HRA based on experience of similar plans and projects (see Table 4-1 below).

Table 4-1 – Is HRA required?

	Question	Response
1	Is the whole of the plan directly connected with, or necessary to, the management of a Habitats site for nature conservation purposes?	No
2	Is the plan a 'strategic development plan' or 'local development plan' or 'supplementary guidance' or a core path plan or a revision thereof?	Yes
3	Does the plan provide a framework for deciding applications for project consents and / or does it influence decision makers on the outcome of applications for project consents?	Yes
4	Does the plan contain a programme, or policies, or proposals which could affect one or more particular Habitats site?	Yes
5	Is the plan a general statement of policy showing only the general political will or intention of the plan-making body, and no effect on any particular Habitats site can reasonably be predicted?	No

- 4.1.2. When the answer to either questions (1) or (5) is 'no', but the answer to any of questions (2), (3) or (4) is 'yes', then the requirement for further HRA is identified.
- 4.1.3. In this case, the answers to questions (1) and (5) are both 'no', while the answers to questions (2) to (4) are all 'yes'. It is therefore confirmed, based on the availability of current information, that the Draft LTP4 for LCR does therefore require HRA.

5 REVIEW OF HABITATS SITES

- 5.1.1. The following section provides a summary of the results of the review of Habitats sites data which will form the baseline for subsequent stages of HRA.
- 5.1.2. It is necessary to consider all the Habitats sites that form part of the national site network (SACs, SPAs and proposed or candidate SPAs or SACs, expanded by the NPPF to include Ramsar sites) within a broad area or Zone of Influence (Zoi) of the draft LTP4 and the specific policies therein.

5.2 HABITATS SITES

- 5.2.1. Relevant Habitats sites include all those that fall within a potential Zoi for the relevant policies and visions of the draft LTP4. The Zoi is defined by the potential effects arising from the plan and the available pathways for those effects to reach and impact the interest features of Habitats sites.
- 5.2.2. In order to identify all strategic corridors where potential direct, indirect and in-combination effects could reasonably be considered possible, an initial buffer of 10km around the LCRCA boundary was applied. The premise is that 10km represents the average trip length from the National Transport Survey, is included in JNCC guidance for air quality (Chapman, C. & Kite, B. 2021)¹¹ and traffic data for this buffer will be consulted and used in any detailed analysis or at AA stage. This Zoi buffer was extended to 30km where bats are the qualifying features of a SAC, cSAC or pSAC.
- 5.2.3. Twenty-one Habitats sites lie within the potential Zoi for the draft LTP4, comprising six SPAs, seven Ramsar sites and eight SACs located within the 10km search area (see Figure 2 and Appendix B). No sites with bats as qualifying features were found in the 30km search area. Information summarising the vulnerabilities of each Habitats site is given in Table 5-3. Air quality effects due to changes in traffic are only likely to occur where the Habitats sites are located within 200m of the road edge (of roads experiencing significant¹² changes in traffic due to the implementation of the draft LTP4).
- 5.2.4. The reasons for designation of these sites and their known vulnerabilities are also summarised in Appendix B, which has been collated from the Natura 2000 standard data forms (JNCC, 2016) and Site Improvement Plans (Natural England, publication years vary).
- 5.2.5. With regard for the qualifying features and information on vulnerability of the sites detailed in Appendix B, the broad conservation objectives for SACs and SPAs are to:

‘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:

- *The extent and distribution of qualifying natural habitats and habitats of qualifying species;*
- *The structure and function (including typical species) of qualifying natural habitats;*

¹¹ Chapman, C. & Kite, B. 2021. *Guidance on Decision-Making Thresholds for Air Pollution*. JNCC Report No. 696 (Main Report), JNCC, Peterborough, ISSN 0963-8091.

¹² Defined by the application of industry thresholds including those published by Natural England and the Institute of Air Quality Management (IAQM).

- *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.'*

5.2.6. Specific conservation objectives for Ramsar sites are not currently available.

5.3 AIR QUALITY CRITICAL LOADS AND LEVELS

- 5.3.1. The assessment has given consideration to air quality sensitivities of the identified Habitats sites, specifically their qualifying features, to changes in both NO_x and NH₃ concentrations and N Dep and then consideration of these changes in relation to the Critical Level and relevant Critical Loads.
- 5.3.2. Critical Loads and Levels are metrics used for assessing the risk of air pollution impacts to sensitive vegetation and ecosystems.
- 5.3.3. Critical Levels are used to estimate the exposure of sensitive vegetation and ecosystems to some important airborne pollutants, below which significant harmful effects are not expected to occur. They are not habitat specific, as with Critical Loads, but have been set to cover broad vegetation types. These levels have been adopted by the EU and the United Nations Economic Commissions for Europe (UNECE) and are used as regulatory standards. They are expressed in units of µg/m³ (micrograms per cubic metre).
- 5.3.4. In addition to the direct effect of pollutant concentrations in the air, vegetation can also be affected by the deposition of pollutants and particles onto both the ground and vegetation. Close to roads, nitrogen deposition can be of concern for sensitive ecological sites as it can result in a variety of adverse effects depending on the habitats present (e.g. interfering with photosynthesis, increasing acidification, altering species composition etc).
- 5.3.5. When considering the effects of nitrogen deposition from the air onto habitats and vegetation, the relevant assessment benchmarks are known as 'Critical Loads', which are defined as: *"...a quantitative estimate of exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge"*.
- 5.3.6. In the UK, Critical Loads have been established for a wide range of habitat and vegetation types, reflecting the variation in ecosystem responses. Details of the Critical Loads relevant to a specific habitat or designated site are available from the Air Pollution Information Systems (APIS) website¹³. For N Dep the critical load is expressed in units of kilograms of nitrogen per hectare per year (Kg N/ha/yr).
- 5.3.7. The relevant Critical Levels for NO_x and NH₃ relating to the protection of vegetation and ecosystems are summarised in Table 5-1.

¹³ <http://www.apis.ac.uk/>

Table 5-1 - Relevant NO_x and NH₃ Critical Levels for the Protection of Vegetation and Ecosystems

Pollutant	Concentration (µg / m ³)	Averaging Period
Nitrogen oxides (NO _x)	30	Annual Mean
	75	24-hours
Ammonia (NH ₃)	3 (uncertainty of 2 - 4µg/m ³ for higher plants)	Annual Mean
	1 (where lichens and bryophytes are present)	Annual Mean

5.3.8. A summary of the relevant Critical Loads for the identified Habitats sites is provided in Appendix C.

BASELINE CONDITIONS

NO_x Concentrations

5.3.9. Existing background annual mean NO_x values for 2024 within the study area have been taken from the national maps provided on the Department for Environment Food and Rural Affairs (Defra) website¹⁴, where background concentrations of NO_x have been mapped at a grid resolution of 1x1km for the whole of the UK. These indicate that in 2024 the Critical Level for NO_x was comfortably met in all grid squares containing the identified Habitats sites. The highest estimated background concentration was 24.95µg/m³ for grid square 332500_390500 (the grid square containing parts of Mersey Narrows & North Wirral Foreshore SPA).

5.3.10. Notwithstanding this, it should be noted that background concentrations are representative of concentrations that can be experienced away from a pollution source. That is, they do not take into account contributions from specific activities/sources, such as a busy road or a combustion source, but represent the contribution to total pollutant concentrations that has been transported by the wind into an area from further away. Therefore, within increasing proximity to a pollution source, such as a busy road, annual mean NO_x concentrations will increase such that there could be the potential for exceedances of the Critical Level for this pollutant within the Habitats sites at locations near to the roadside. The use of background annual mean NO_x concentrations in the screening process should be treated with caution.

N Deposition

5.3.11. In relation to the maximum N Dep values presented in Appendix C, these show that at least the lower Critical Load thresholds are exceeded at all Habitats sites where air pollution is listed in Table 5-2 as a pressure or threat; for many the upper Critical Load is also exceeded. This is not to say that all these areas will be significantly impacted by the draft LTP4 but it highlights areas that are currently experiencing N Dep above the relevant Critical Loads.

¹⁴ <https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html>

NH₃ concentrations

5.3.12. From an initial review of the data provided in Appendices B and C, the following Habitats sites where air pollution is listed as a pressure or threat are also of concern in relation to annual mean NH₃ concentrations, as baseline concentrations are already above the relevant Critical Levels¹⁵:

- West Midlands Mosses SAC
- Manchester Mosses SAC
- Dee Estuary / Aber Dyfrdwy SAC
- Sefton Coast SAC
- Mersey Narrows & North Wirral Foreshore SPA
- The Dee Estuary SPA
- Ribble & Alt Estuaries SPA

5.4 INFORMATION RELATING OTHER POTENTIAL EFFECTS ON HABITATS SITES

5.4.1. Table 5-2 below summarises other pressures and threats listed on the Site Improvement Plans (SIPs) for SPAs and SACs that will need to be considered during screening and, if required, AA of the draft LTP4.

¹⁵ Noting that where the relevant Critical Level is specified as 1 or 3, a precautionary approach has been applied (i.e. the use of a CL of 1).

Table 5-2 - Pressures and threats listed on Habitats site's SIPs¹⁶

It should be noted that SIPs have not been produced for Ramsar sites and so they are not included within this table. However, all Ramsar sites located within the 10km ZOI are overlapped by SACs and/or SPAs (see Figure 2). As such, the relevant pressures and threats are captured in this table against those Habitats sites.

Site Name	Air pollution: impact of atmospheric nitrogen	Water pollution	Hydrological changes	Public access/ disturbance	Habitat fragmentation	Habitat Connectivity	Physical Modification	Climate Change	Coastal squeeze	Change in land management	Inappropriate Coastal Management	Inappropriate Scrub Control	Invasive species	Direct impact from third party	Changes in species distributions	Fisheries: marine and estuarine	Forestry and woodland management	Over grazing	Wildfire/ arson	Other
Rixton Clay Pits SAC														P/T						
West Midlands Mosses SAC	P	P	P		T															
Manchester Mosses SAC	P		P																	
Dee Estuary/ Aber Dyfrdwy SAC	P	P/T		P/T			P/T	P/T	P/T		P/T	P/T	P/T	T	P	P/T		P/T		P/T- Marine Litter T- Predation T- Planning permission: general T- Marine consents and permits T- Wildfire/arson T- Transportation and service corridors
Sefton Coast SAC	T		T	T					T		P/T	P/T	T			T				P- Change to site conditions P- Shooting/scaring P/T- Invasive species

¹⁶ P = Pressure, T = Threat

Site Name	Air pollution: impact of atmospheric nitrogen	Water pollution	Hydrological changes	Public access/ disturbance	Habitat fragmentation	Habitat Connectivity	Physical Modification	Climate Change	Coastal squeeze	Change in land management	Inappropriate Coastal Management	Inappropriate Scrub Control	Invasive species	Direct impact from third party	Changes in species distributions	Fisheries: marine and estuarine	Forestry and woodland management	Over grazing	Wildfire/ arson	Other
																				P-Feature location/ extent/ Pressure condition unknown
Halkyn Mountain / Mynydd Helygain SAC*																				*SIP does not list any pressures or threats
Deeside and Buckley Newt Sites SAC*																				*SIP does not list any pressures or threats
River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid SAC*																				*SIP does not list any pressures or threats
Martin Mere SPA		T	T										T							
Mersey Narrows & North Wirral Foreshore SPA	P	P/T		P/T			P/T	P/T	P/T		P/T	P	P/T	T	P	P		P/T	T	P/T- Marine Litter T- Predation T- Planning permission: general T- Marine consents and permits T- Transportation and service corridors
The Dee Estuary SPA	P	P		P/T			P/T	P/T	P/T		P/T	P	P/T	P/T	P		P/T	P/T	T	P/T- Marine Litter T- Predation T- Planning permission: general T- Marine consents and permits T- Transportation and service corridors
Mersey Estuary SPA				P/T									P/T		P					

Site Name	Air pollution: impact of atmospheric nitrogen	Water pollution	Hydrological changes	Public access/ disturbance	Habitat fragmentation	Habitat Connectivity	Physical Modification	Climate Change	Coastal squeeze	Change in land management	Inappropriate Coastal Management	Inappropriate Scrub Control	Invasive species	Direct impact from third party	Changes in species distributions	Fisheries: marine and estuarine	Forestry and woodland management	Over grazing	Wildfire/ arson	Other
Ribble & Alt Estuaries SPA	T		T	T					T		P/T	P/T	P/T			P				P- Change to site conditions P- Shooting/scaring P- Feature location/ extent/ Pressure condition unknown
Liverpool Bay / Bae Lerpwl (England) SPA		T														P				T- Transportation and service corridors T- Fisheries: recreational marine and estuarine T- Extraction: non-living resources T- Siltation

6 APPROACH TO STAGE 1 SCREENING

- 6.1.1. The guidance referred to in Section 2.5 has been referred to in undertaking the Stage 1 screening of the Draft LTP4 policies. The approaches set out by the guidance have been interpreted to the level of detail available within the policies based on the descriptions contained within the Draft LTP4, noting that the Plan is a high-level document. At a greater level of detail, and as normally required with specific project level HRAs for example, the HRA stages have more specific data requirements.

6.2 AIR QUALITY INPUT

- 6.2.1. The sensitivity of Habitats sites to changes in air quality is fundamental to the screening and, if required, subsequent AA of the draft LTP4 and associated projects. Seven Habitats sites within the Zol are identified as having sensitivity to changes in air quality (see Section 5.3.12 and Table 5-2). In particular, at least the lower Critical Load for N Dep is already being exceeded at locations within the identified Habitats sites, making them particularly sensitive to any changes in air quality that may arise as a result of the draft LTP4 objectives and policies. There are a number of Habitats where the relevant Critical Level for NH₃ is exceeded (or exceeds when applying the most precautionary Critical Level of 1µg/m³).
- 6.2.2. Unlike Local Plan assessments or development focussed HRA, where the traffic change is directly linked to the number of dwellings or employment floorspace proposed, it is not possible to calculate traffic change due to LTPs in the same way as:
- Impacts of many of the measures (e.g. sustainable transport measures, measures to promote modal shift) are not easily quantifiable; and/or
 - Detail regarding the proposed interventions/infrastructure is not yet known and time frames for implementation are yet to be established.
- 6.2.3. Therefore, in determining the potential for LSE, reference has been made to the traffic data thresholds contained within the guidance documents produced by Natural England (July 2018)¹⁷ and the IAQM (May 2020)¹⁸. However, these thresholds have only been considered qualitatively and at a high level. Moreover, professional judgement has been used to determine the potential for LSE taking into account:
- The findings of the baseline review (detailed within Section 4);
 - The relevant Zol for the Draft LTP4 objectives and interventions and which Habitats sites fall within the identified Zol;
 - The proximity of the identified interventions to the nearest Habitat site(s), where provided;
 - The distance of the Habitats site(s) to the nearest road likely to be affected, where available; and

¹⁷ Natural England (June 2018) Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations. Available online: <http://publications.naturalengland.org.uk/publication/4720542048845824> (Accessed April 2024)

¹⁸ Holman et al (2020). A guide to the assessment of air quality impacts on designated nature conservation sites – v1.1 Available online: <https://iaqm.co.uk/text/guidance/air-quality-impacts-on-nature-sites-2020.pdf>

- The likely effects of the objective or interventions on local air quality (e.g. positive due to modal shift, negative due to the potential redistribution of traffic on the local road network).

6.2.4. The main air quality effects on Habitats sites as a result of the Draft LTP4 are considered to comprise:

- Effects arising due to construction phase effects of any interventions (including on-site construction activities and/or construction traffic);
- A reduction in traffic due to the promotion of sustainable transport measures and measures to encourage modal shift; and
- Effects associated with the redistribution of traffic on the local road network which could result in more traffic passing within 200m of Habitats sites.

6.3 IN-COMBINATION ASSESSMENT

- 6.3.1. It is a requirement of the Habitats Regulations to consider the effects of projects or plans “in combination” at the screening stage. Articles 24, 63 and 105 of the Habitats Regulations require Natural England and other competent authorities to consider the effects of plans or projects alone and in combination with other plans or projects. The ‘in-combination’ requirement is undertaken in order to make sure that prior to their authorisation the effects of numerous proposals, which alone would not result in a significant effect, are further assessed to determine whether their combined effect would be significant enough to require more detailed assessment.
- 6.3.2. The landmark Waddenzee judgment provides a clear interpretation of the legislation. Paragraphs 53 and 54 of the Judgment state:
- 6.3.3. *“according to the wording of that provision [Article 6(3) of the Habitats Directive] an appropriate assessment of the implications for the site concerned of the plan or project must precede its approval and take into account the cumulative effects which result from the combination of the plan or project with other plans or projects in view of the sites conservation objectives. Such an assessment therefore implies that all the aspects of the plan or project which can, individually or in combination with other plans or projects, affect those objectives must be identified in the light of the best scientific knowledge in the field.”*
- 6.3.4. The types of plans and projects that should be considered in an in-combination assessment include:
- The incomplete or non-implemented parts of plans or projects that have already commenced
 - Plans or projects given consent or given effect but not yet started
 - Plans or projects currently subject to an application for consent or proposed to be given effect
 - Projects that are the subject of an outstanding appeal
 - Ongoing plans or projects that are the subject of regular review
 - Any draft plans being prepared by any public body
 - Any proposed plans or projects published for consultation prior to application
 - Projects being proposed or being undertaken by a competent authority itself which require no external authorisation
- 6.3.5. With reference to Section 2.3, case law and methodology relating to HRA has changed rapidly over recent years. One of the most notable changes as a result of CJEU rulings has been the clarification that mitigation measures cannot be included in HRA Stage 1 (Screening). As this was previously a common practice, many HRAs will have concluded no LSE on Habitats sites, based on the likely

effectiveness of mitigation measures. The outcome of this is that preceding plan-level HRAs can be unreliable in terms of adopted conclusions of 'no LSE'.

- 6.3.6. Based on this complexity and need for consistency in the assumptions relating to mitigation, a precautionary approach has been adopted when considering the HRA conclusions of overlapping plans and projects in-combination.
- 6.3.7. The principle other plans and projects considered to be of relevance regarding in-combination effects comprise local plans and development strategies for authorities within the LCRCA and surrounding authorities, adjacent authorities LTPs, minerals and waste plans and coastal plans:
- [The Liverpool Local Plan 2013 – 2033](#) (adopted in January 2022) (a local plan review is currently starting)
 - [Liverpool City Region Spatial Development Strategy to 2040](#) (currently being developed)
 - [Knowsley Local Plan Core Strategy 2013 - 2028](#) (adopted January 2016)
 - [St Helens Borough Local Plan up to 2037](#) (adopted July 2022)
 - [Halton Local Plan 2014 – 2037](#) (adopted March 2022)
 - [A Local Plan for Sefton 2015 - 2030](#) (adopted April 2017)
 - [Emerging Wirral Local Plan 2021 – 2037](#) (undergoing examination)
 - [Emerging Warrington Local Plan 2022/23 – 2038/39](#) (adopted December 2023)
 - [Cheshire West and Chester Local Plan \(Part One\) Strategic Policies](#) (adopted January 2015)
 - [Cheshire West and Chester Local Plan \(Part Two\) Land Allocations and Detailed Policies](#) (adopted July 2019)
 - [West Lancashire Local Plan 2012 – 2027](#) (adopted 2013, to be replaced by the emerging local plan)
 - [Emerging West Lancashire Local Plan 2023-2040](#) (currently being developed)
 - [Places For Everyone Joint Development Plan Document](#) – Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford, Wigan
 - [Flintshire Local Development Plan 2015 – 2030](#) (adopted 2023)
 - [Wrexham Local Development Plan 2 \(LDP2\) 2013 – 2028](#)
 - [Merseyside and Halton Local Transport Plan \(LTP3\) 2011 – 2026](#)
 - [Halton Council, Knowsley Council, Liverpool City Council, Sefton Council, St.Helens Council and Wirral Council Joint Waste Local Plan](#) 2013
 - [Wirral Local Plan Minerals Report](#) (January 2022)
 - [Great Ormes Head to Scotland Shoreline Management Plan](#) (SMP) 22
 - [National Flood and Coastal Erosion Risk Management Strategy for England](#) 2020 – 2100
 - [Sefton Coast Plan](#) 2030 and beyond
 - [Liverpool John Lennon Airport Master Plan](#) to 2050
- 6.3.8. Major projects within the region comprise:
- Northern Powerhouse Strategy
 - Liverpool Waters
 - Liverpool 2
 - Mersey Tidal Power Project

7 HRA STAGE 1 SCREENING OF THE DRAFT LTP4

- 7.1.1. Table 7-1 sets out the findings of the Stage 1 screening process and identifies where the potential for LSE arises.

Table 7-1 – Stage 1 screening assessment

Draft LTP Goal	Policy	Summarised policy text	Screening of Likely Significant Effects (LSE)	In-Combination	Screened in?
GOAL 1 Support good, clean job growth and opportunity for all. Make sure transport supports local growth. This means equal opportunities for all to access affordable transport systems that connect people to jobs and services – all while keeping the environment in mind.	Policy G1-1 Consider sustainable transport and movement in all we do as a Combined Authority	The Combined Authority, along with its partners, will consider the transport implications of all its economic policies, plans and programmes from the outset. We will support activities, plans and proposals affecting the Liverpool City Region in ways that support the transport hierarchy and with walking, cycling and clean public transport as the first choices of travel for people of all ages and abilities, and in ways that improve quality of life for all. It will also ensure that everyone can access education, work and life chances easily and fairly and that goods and services can move easily and sustainably.	This is a general policy to promote active and sustainable transport and reduce dependency on private vehicles. No anticipated pathway which could give rise to LSE. Policy likely to benefit local air quality and Habitats sites.	No in-combination effect identified	Screened Out
	Policy G1-2 Prioritising measures and services that improve people's access to opportunity	We will use our evidence to guide and prioritise measures that address gaps or weaknesses in the transport network and that act as a barrier to businesses, visitors and residents across the city region. The spatial priorities (para 5.1.16) and the strategic housing and employment sites being promoted (5.1.11) will be especially important considerations in the specification of enhanced active travel, bus and rail links and measures to improve integration. A re-mapped, franchised bus network will be critical in support of this policy and to help deliver the wider goals and principles of this plan.	This is a general policy to promote active and sustainable transport and reduce dependency on private vehicles. No anticipated pathway which could give rise to LSE. Policy likely to benefit local air quality and Habitats sites.	No in-combination effect identified	Screened Out
	Policy G1-3 Making it easy and affordable to travel	Using our City Region Sustainable Transport Fund between 2022-2027 and through new influences in the form of bus franchising and the further devolution of our rail services, we will deliver a new digital journey payment system that make bus and rail travel in the city region transport simple, flexible and affordable. The aim over time will be to extend this convenience to other forms of travel, including legalised scooters and e-bikes and new forms of mobility. This will be accessible by smartcard, mobile phone app or contactless debit card	This is a general policy to promote active and sustainable transport and reduce dependency on private vehicles. No anticipated pathway which could give rise to LSE. Policy likely to benefit local air quality and Habitats sites.	No in-combination effect identified	Screened Out
	Policy G1-4 Reviewing our travel support offer	We will review our travel support packages making sure that they are delivering benefits in ways that support the aims of this LTP. This will include consideration of new support or incentivisation packages for younger people facing barriers to education or work, for people who are on the cusp of learning to drive and buy a car, for people struggling to access work or for people seeking asylum and who require urgent support.	This is a general policy to promote active and sustainable transport and reduce dependency on private vehicles. No anticipated pathway which could give rise to LSE.	No in-combination effect identified	Screened Out

Draft LTP Goal	Policy	Summarised policy text	Screening of Likely Significant Effects (LSE)	In-Combination	Screened in?
		The presumption will be on maximising the use of travel choices that are at the top of the transport hierarchy set out in Principle 5: Adopting a sustainable movement hierarchy in all we do.			
GOAL 2 Achieve net-zero carbon and an improved environment. Reach net-zero carbon emissions by 2035 or sooner, whilst protecting and improving our local environment.	Policy G2-1 Removing carbon emissions from transport	Removing carbon emissions rapidly to achieve our aim to be a net zero emitting city region by 2035. All transport proposals, plans and schemes will be assessed on their ability to reduce carbon, and this will form a core consideration in the decision making process. Plans and proposals that make big reductions in carbon emissions by supporting modal shift will be viewed favourably. Schemes or proposals, notably those that are commissioned or funded by the Combined Authority must set out their likely carbon impacts. These will only be supported if they reduce overall carbon emissions against our 2035 decarbonisation trajectory.	This is a general policy to promote active and sustainable transport and reduce dependency on private vehicles. Caution should be applied to ensure no schemes or proposals to reduce carbon conflict with improving air quality. No anticipated pathway which could give rise to LSE. Policy likely to benefit local air quality and Habitats sites.	No in-combination effect identified	Screened Out
	Policy G2-2 Delivering an integrated, sustainable mass transit network, tackling capacity problems and improving connectivity	Tackling known constraints and barriers on the active travel, bus and rail networks that enable large numbers of people to be moved will be essential to support the aims of this plan. Interventions will be focused and prioritise this action in two principal ways: <ul style="list-style-type: none"> • By addressing weak links and connectivity gaps across the city region through infrastructure enhancements, improved ticketing, information and better service levels; and • By targeting actions to achieve modal shift in areas or on corridors where use of cars, vans or HGVs is highest and where poor connectivity, poor journey times, or actual or perceived dangers hinder bus, rail and active travel choices and the delivery of the goals and principles in the LTP. There will be a focus on filling missing links in our active travel routes and providing safe, high quality “last mile” links to areas of growth, schools, transport hubs and other big trip generators. Specifically, the LCR supports the delivery of Northern Powerhouse Rail in full which is essential to deliver the connectivity and capacity that is needed to accommodate more passenger and freight on the network. This is also needed to improve connectivity between the city region and other towns and cities across the north. Solutions to capacity and crowding problems at Liverpool Central Station will be prioritised in partnership with Government and relevant bodies and agencies	Policy to enhance public transport services and support behaviour change and modal shift to active and sustainable transport. However, it is unclear exactly where new or improved bus services and/or routes would be provided. The inclusion in the Policy of the support for Northern Powerhouse Rail (NPR) is notable, as this currently promotes a new rail route between Liverpool and Warrington, a notable new piece of transport infrastructure and a major engineering scheme with an unconfirmed route corridor. This uncertainty of potential pathways of impact has been presented at a larger scale within the Habitats Regulations Assessment (Stage 2 Appropriate Assessment) for Transport for the North – Strategic Transport Plan 2 (Arup, January 2024). The inclusion of NPR and the specific elements within the Draft LTP4 Zol, in the absence of further detail, means the Policy cannot be screened out at this time.	In-combination effects possible but screened-in on potential effects arising from the Policy ‘alone’.	Screened In
	Policy G2-3	The Combined Authority strongly supports travel solutions that provide the same convenience as a car using flexible and	This is a general policy to promote low emission and sustainable travel solutions.	No in-combination effect identified	Screened Out

Draft LTP Goal	Policy	Summarised policy text	Screening of Likely Significant Effects (LSE)	In-Combination	Screened in?
	The role of shared mobility and micromobility	<p>shared forms of transport, without the disbenefits of owning or running a car.</p> <p>We will proactively work with our local authorities and private sector partners to roll-out the implementation of car clubs and to encourage uptake. Zero emission electric vehicles will be incentivised, in line with our approach to electric vehicle charging infrastructure in Policy G5-4.</p> <p>Measures that make existing, general on-street and off-street parking spaces available for the convenient parking and docking of micromobility options, such as car club vehicles, e-scooters, e-bikes and cargo bikes will be encouraged.</p> <p>Taxis and private hire vehicles will remain an important part of the shared mobility mix, integrating closely with public mass transit network.</p>	No anticipated pathway which could give rise to LSE. Policy likely to benefit local air quality and Habitats sites.		
	Policy G2-4 Reallocating road space and making best use of finite capacity	<p>We will review how road space is used and reprioritise road space to make sustainable modes of travel – walking, cycling, clean public transport and new forms of mobility such as e-bikes and e-scooters the first choice as attractive, affordable and convenient travel choices. This is to support the shift that is needed from travel by private cars and vans to incentivise the most sustainable alternatives in line with Principle 5: Adopting a sustainable movement hierarchy in all we do.</p> <p>Highway maintenance schemes must consider and incorporate plans to support walking, wheeling and public transport use in equal measure.</p> <p>We accept that this change in emphasis will mean that journey times by car or by private vehicle may become slower, less direct or less convenient than they may have been previously. The principle of such consequences will not be viewed negatively in the decision-making process.</p> <p>There will be a presumption against proposals or schemes that create additional highway capacity for general, private traffic. Schemes that result in the creation of additional general road capacity and that induce more trips by private transport will not be supported by the Combined Authority.</p>	<p>Whilst this is fundamentally a policy which seeks to drive modal shift toward sustainable transport options and low-emission or active travel solutions, it also contains aspects that suggest greater land take to facilitate active travel over time, and additionally that traffic re-distribution on the road network may be a direct result of the Policy.</p> <p>There is considerable uncertainty around where new measures may be constructed and proximity to Habitats sites (which are largely located along coasts and estuarine boundaries) or where traffic redistribution could contribute to an increase in air pollution impacts at Habitats sites where there is a known pressure or threat. It cannot be concluded that there is no pathway to LSE associated with this policy, based on uncertainty of locations.</p>	In-combination effects possible but screened-in on potential effects arising from the Policy 'alone'.	Screened In
	Policy G2-5 A high quality, low carbon transport network in Liverpool City Centre and in our main towns.	<p>With Liverpool City Council, we will jointly develop a new Mobility Strategy for Liverpool City Centre. This will radically repurpose how the city centre operates and is prioritised for movement by walking, cycling and scooting and by clean public transport and logistics uses. This Strategy will inform the rolling LTP Delivery Plan.</p> <p>We support related priorities to create more liveable, more sustainable and better connected towns and main centres</p>	The Policy seeks to drive spatially specific active and low-emission outcomes for the City Centre location in close proximity to the Habitats sites associated with the Mersey Estuary. There is considerable uncertainty around whether traffic redistribution immediately surrounding this location could occur and potentially contribute to an increase in air pollution impacts at Habitats sites where this is a known pressure or threat. It cannot be concluded that there is no pathway to LSE associated with this policy,	In-combination effects possible but screened-in on potential effects arising from the Policy 'alone'.	Screened In

Draft LTP Goal	Policy	Summarised policy text	Screening of Likely Significant Effects (LSE)	In-Combination	Screened in?
		across the LCR, as some of our main generators of trips and movement, linked the spatial priorities (para 5.1.16) and the strategic housing and employment sites (5.1.11).	based on uncertainty of changes in transport user behaviour for more polluting transport modes.		
	Policy G2-6 Delivering sustainable and efficient freight and logistics	<p>We will deliver and support measures that reduce the adverse impact of freight and distribution activities and that improve their efficiency and maximise their positive role. This will include measures that:-</p> <p>a) Support movement by rail, sea or water, where these prioritise sustainable fuels, in place of road-based movement in line with the transport hierarchy principle</p> <p>b) Ensure, through evidence, engagement and lobbying that the Government's plans for developing the national rail network post-HS2 and through Northern Powerhouse Rail deliver the best possible outcome for the Liverpool City Region by creating essential capacity to accommodate more rail freight and a move from road to rail.</p> <p>c) Support the uptake of clean, zero emission fuels for freight vehicles and vans, aircraft, boats, ships and ferries, such Battery Electric and green hydrogen and ensuring that fuelling or charging facilities are co-developed in the right locations with fuel suppliers and operators</p> <p>d) Support measures in urban areas especially that enable freight to be consolidated onto a smaller number of vehicles or else moved by ultra-clean forms of travel, such as cargo bikes and so that it can be moved more efficiently. This will include new and innovative ways to manage highways, junctions and other bottlenecks in ways that support Principle 5: Adopting a sustainable movement hierarchy in all we do.</p> <p>The above will be supported by clear evidence on where vehicle flows in particular can be shifted to other forms using data in line with Principle 3: Transport decisions must be based on clear need and evidence.</p>	<p>Policy based on careful assessment of outcomes to implement a preferred hierarchy of sustainable transport aimed at freight and logistics. The Policy aims at positive outcomes for air quality.</p> <p>However, the inclusion in the Policy of support for NPR is notable, as this currently promotes a new rail route between Liverpool and Warrington, a notable new piece of transport infrastructure and a major engineering scheme with an unconfirmed route corridor. This uncertainty of potential pathways of impact has been presented at a larger scale within the Habitats Regulations Assessment (Stage 2 Appropriate Assessment) for Transport for the North – Strategic Transport Plan 2 (Arup, January 2024). The inclusion of NPR and the specific elements within the Draft LTP4 ZoI, in the absence of further detail, means the Policy cannot be screened out at this time.</p>	In-combination effects possible but screened-in on potential effects arising from the Policy 'alone'.	Screened In
	Policy G2-7 Implementing "polluter pays" approaches	<p>The Combined Authority supports the role of pricing measures that help manage demand for, and the use of cars, vans and freight vehicles in ways that support the vision, goals and principles in this plan. Tunnel tolls and discounting on the Mersey Tunnels will be kept under review. This is to ensure that users pay the fair and true cost of their travel and in a way that makes clean, sustainable transport affordable and competitive. The likely impacts of different pricing options on carbon emissions will guide reviews of tolling and operations.</p> <p>We will work with our private sector partners and local authorities to make the cost of parking more consistent and reflective of the true costs of vehicle use. We will work to seek</p>	Whilst this policy relates to pricing measures aiming to encourage modal shift to more sustainable modes of transport and low/zero emission vehicles, depending on where the pricing schemes will be applied, it could result in the redistribution of traffic on the local road network. In the absence of detailed information on locations, this could include roads in close proximity to Habitats sites. Therefore, in the absence of further detail, this policy cannot be screened out at this time.	No in-combination effect identified	Screened In

Draft LTP Goal	Policy	Summarised policy text	Screening of Likely Significant Effects (LSE)	In-Combination	Screened in?
		<p>to reduce overall parking provision, especially long-term parking to encourage modal shift.</p> <p>The Combined Authority supports the move to a national system of road pricing to replace existing duty on petrol and diesel and vehicle excise duty as part of the transition from fossil fuel powered vehicles to electric vehicles. This will also ensure that the cost of a journey by car especially reflects impacts on congestion and pollution levels.</p>			
GOAL 3 Improve health and quality of life. Improve the health and quality of life for our people and communities. Make sure transport is safe, clean and good for the environment around us.	Policy G3-1 Reinforcing “Vision Zero” – no deaths or serious injuries on the city region’s roads by 2035	<p>We reinforce and commit to the clear vision of achieving a big reduction in the number and severity of road traffic collisions, working to a target of no avoidable collisions by 2035.</p> <p>The principles in the Merseyside Road Safety Partnership’s Road Safety Strategy and successor strategies with similar aims will guide our actions in the delivery of safe streets and the elimination of death and serious injuries on our roads. We will support work by the Cheshire Road Safety Partnership in the development of a similar Vision Zero commitment for Halton Borough, policed by Cheshire Constabulary.</p> <p>The LCRCA will support the work of the Merseyside and Cheshire Road Safety Partnerships by sharing data and intelligence to understand the causes and factors leading to collisions and “near misses” on the roads, and to develop strategies and interventions in response to these.</p> <p>We will work with the Merseyside and Cheshire Road Safety Partnerships to tackle unsafe behaviours on the roads and support the resourcing of essential enforcement and intelligence-led activities.</p> <p>We will support safe behaviours through educational measures including targeted educational campaigns and road safety training that supports the Safe Systems principle.</p>	<p>This is a general policy focussed on the reduction of traffic accidents and collisions.</p> <p>No anticipated pathway which could give rise to LSE.</p>	No in-combination effect identified	Screened Out
	Policy G3-2 Delivering clean, healthy travel and placemaking in all we do	<p>Transport schemes and traffic management schemes of any scale must be designed around the needs of the movement hierarchy. Highways and other spaces used by the public must be made safe and attractive for people who are walking, wheeling or cycling as the first consideration. Achieving a reduction in the speed, volume and dominance of traffic must be a stated objective of transport-related schemes or traffic management measures, especially in built up areas.</p> <p>Proposals that involve changes to the movement of people or traffic must be considered as a cohesive and complementary package of measures focused around the wider locality or environment. Improving the streetscape through good design, improved public realm and high-quality street furniture and planting will be encouraged, but only as part of a cohesive package aimed at reducing the speed, volume and dominance</p>	<p>General policy to promote active transport (walking and cycling) as first transport choices and support low traffic areas. Policy supports low speed zones and traffic calming measures although there are no details on where traffic calming/speed reductions are proposed. These may lead to redistribution of some traffic. Impacts are likely to be localised to urban centres, but this could include City Centre/coastal locations in close proximity to the Habitats sites associated with the Mersey Estuary. There is considerable uncertainty around whether traffic redistribution immediately surrounding this location could occur and potentially contribute to an increase in air pollution impacts at Habitats sites where this is a known pressure or threat. It cannot be concluded that there is no pathway to LSE associated with this policy, based on uncertainty of changes in transport user behaviour for more polluting transport modes.</p>	In-combination effects possible but screened-in on potential effects arising from the Policy ‘alone’.	Screened In

Draft LTP Goal	Policy	Summarised policy text	Screening of Likely Significant Effects (LSE)	In-Combination	Screened in?
		<p>of traffic. Measures such as school streets, Low Traffic Neighbourhoods and "Mini Holland" schemes will be encouraged. So too will measures that remove the dominance and dangers of street-level car parking, whether on- or off-road.</p> <p>Low speed zones, including 20mph zones will be supported, especially where accompanied by complementary packages such as road markings, traffic calming features, road narrowing or speed humps.</p> <p>The LCRCA will urgently progress means to address the problems, dangers and unsightliness of pavement parking.</p>			
	<p>Policy G3-3</p> <p>Improving air quality from transport</p>	<p>As well as achieving quantifiable carbon reductions from our transport network, reducing all other harmful emissions from transport, including Nitrogen Dioxide and Particulate Matter remains a high priority in delivering this plan.</p> <p>Eliminating harmful pollution at source and in ways that improve air quality and allow the revocation of the city region's Quality Management Areas (AQMA's) is a fundamental aim.</p> <p>The LCRCA will use its powers, influences and responsibilities, especially through commissioning, franchising or funding processes for transport schemes and transport services, to radically improve air quality. This will include, in priority order:</p> <ul style="list-style-type: none"> • Supporting the collection of granular, real time air quality data to understand the extent of poor air quality and the impact of different measures on air quality. This will include rolling-out smart air quality sensors linked to artificial intelligence and traffic management systems • Support consistent traffic management across the city region to give priority to the cleanest and most efficient forms of transport in areas where poor air quality hotspots or AQMA's exist. This will be through modal shift measures to prioritise modes at the top of the movement hierarchy to reduce traffic and congestion levels, and tackle stop-start traffic conditions for buses and heavy goods vehicles that emit high levels of pollution. • Phasing out the use of fossil fuelled vehicles, fleets and craft over the lifetime of the LTP in favour of transport powered by clean hydrogen, electricity or other sustainable sources, especially where this helps tackle defined air quality problems. This will be achieved in a variety of ways, including: direct intervention by the LCRCA, in partnership with bus, rail, port, airport and road freight operators, by supporting clean fuel charging or filling facilities, or by supporting the case for national legislative or regulatory change. 	<p>This is a general policy which aims to reduce harmful emissions from the transport network, tackling hot spot areas and poor air quality within the AQMA. Supports use of cleanest vehicles, encouraging uptake of electric vehicles. Policy aims to improve air quality.</p> <p>No anticipated pathway which could give rise to LSE. Policy likely to benefit local air quality and Habitats sites</p>	No in-combination effect identified	Screened Out

Draft LTP Goal	Policy	Summarised policy text	Screening of Likely Significant Effects (LSE)	In-Combination	Screened in?
	Policy G3-4 Making transport safe, inclusive, attractive and reassuring for the user	<p>Building on Principle 4: Transport must support placemaking we will ensure that transport development and changes improve the safety, and perceptions of safety for all. This will be achieved by designing-out the risk of crime and anti-social behaviour by creating inviting spaces for movement and for people waiting or interchanging between different forms of travel. Creating transport schemes, transport corridors, streets, points of access and new spaces that are well-lit, well designed and inviting form essential design components in support of this.</p> <p>The involvement of people who are most affected by crime or fear of crime, including women and girls and other vulnerable groups of people, will also be captured in development and design of proposals and projects.</p> <p>We will actively support multi agency partnerships and campaigns, such as TravelSafe and work with transport operators and the relevant authorities such as the Police and Crime Commissioners and British Transport Police to prevent, and tackle anti-social behaviour on our transport networks, especially bus and rail networks, and offer reassurance to all.</p> <p>Learning from the experiences of COVID-19, physical cleanliness, and perceptions of cleanliness form a critical component of a safe and attractive transport network. This is essential to reassure and attract back new and lapsed users of the public transport network and support the growth in bus and rail travel required to deliver the aims of the LTP.</p> <p>We also recognise the importance of human interaction and active surveillance in creating feelings of safety and confidence.</p>	<p>This a general policy to encourage use of public/active transport by reducing crime/anti-social behaviour and making spaces safe and appealing to use.</p> <p>No anticipated pathway which could give rise to LSE. Policy likely to benefit local air quality and Habitats sites.</p>	No in-combination effect identified	Screened Out
GOAL 4 Transport that's well maintained and tough. Make sure our transport network and assets are well maintained, long lasting, and tough to the effects of climate change.	Policy G4-1 Well maintained transport infrastructure informed by good data	<p>We will strive to keep the condition of the city region's road network well maintained and regularly reviewed to a consistent standard, and in ways that follow national guidance and best practice.</p> <p>Our ambition is to collect and use data in real time, in line with Principle 3: Transport decisions must be based on clear need and evidence to make the case for, and prioritise the significant levels of, investment needed to improve their condition and lifespan.</p> <p>The primary focus on maintenance in the immediate term is the Key Route Network of local roads, structures and footways. In the medium term, we must ensure that the condition of all carriageways, footways, cycleways, public rights of way, highway structures, signs, markings and other associated highway assets are addressed and brought up to an acceptable, maintainable standard.</p>	<p>This is a general policy related to maintenance and management of all transport infrastructure.</p> <p>No anticipated pathway which could give rise to LSE.</p>	No in-combination effect identified	Screened Out

Draft LTP Goal	Policy	Summarised policy text	Screening of Likely Significant Effects (LSE)	In-Combination	Screened in?
		<p>The tolled Mersey Tunnels and Mersey Gateway provide vital connections between our communities and the wider travel to work area for people and for goods. They will be proactively maintained in line with robust asset management plans.</p> <p>The city region's rail network and infrastructure is complex and vulnerable, especially in light of changing weather patterns that increase risks of high winds, flooding and icing. We will work with the rail industry to improve resilience in ways that support the aims of this plan, including increasing the amount of natural capital in ways that support the safe and efficient operation of the network.</p>			
	Policy G4-3 Delivering transport that can withstand the effects of climate change	<p>We will adopt design standards for new and existing infrastructure that lessens the effects of extreme weather events on network performance to both protect assets and improve people's perceptions and experiences.</p> <p>Design standards for new and existing infrastructure to be retrofitted will, where possible, incorporate green infrastructure to help mitigate impacts of climate change on the transport network.</p> <p>We will monitor weather events in real time and take proactive measures to reduce disruption, for example diverting vehicles and people from flood prone or high wind routes.</p> <p>Tree maintenance schedules for trees adjacent to the transport network will be better informed by climate projections to prevent disruption, improve reliability and minimise risk of physical harm.</p> <p>We will ensure that all new infrastructure and retrofitted projects designed to reduce surface water runoff and flooding are developed in collaboration with utility companies to eliminate negative implications on the drainage network.</p> <p>The complementary Local Nature Recovery Strategy (LNRS) will inform opportunities for nature recovery when implementing nature-based solutions to the impacts of climate change across the transport network, which will provide multiple co-benefits.</p> <p>We will map and align resilience opportunities to make improvements to the transport network more feasible, especially to improve active travel conditions.</p>	<p>This is a general policy largely aimed at ensuring transport infrastructure can withstand disruption (primarily flooding) from climate events.</p> <p>No anticipated pathway which could give rise to LSE.</p>	No in-combination effect identified	Screened Out
	Policy G4-2 Ensuring that we maintain infrastructure in a sustainable way	<p>We will pilot, test and commission new ways of reducing carbon from transport infrastructure, including concrete, steel, glass and bituminous materials and short to new, low carbon technologies and alternative materials and construction methods in all that we commission and deliver. These will include sustainable</p>	<p>This policy relates to use of sustainable construction materials, new technologies, and reduction of waste and carbon emissions.</p> <p>No anticipated pathway which could give rise to LSE.</p>	No in-combination effect identified	Screened Out

Draft LTP Goal	Policy	Summarised policy text	Screening of Likely Significant Effects (LSE)	In-Combination	Screened in?
		<p>construction materials, and net zero energy generation sources, such as heat pumps, photovoltaics and wind power.</p> <p>Retrofitting of street lighting and traffic signals with LED and power saving technologies to consume less power will also be rolled-out.</p> <p>As part of integration of circular economy principles into the transport network, there will also be a strong focus on reusing existing buildings, materials, equipment and infrastructure, where possible, to maximise resources and reduce waste and carbon emissions. This will include the installation of measures such as solar installations, heat pumps, where appropriate.</p> <p>We will also actively support new methods and technologies that absorb carbon and support wider biodiversity and nature recovery plans and in ways that make areas feel safer and more attractive for people. Measures may include green roofs and wildflower planting, as well as planning for better personal safety.</p>			
GOAL 5 Plan and respond to uncertainty and change and be innovative. Become a forward-thinking region. Use innovation and new technologies, plan for uncertainty and change, and improve future travel in the region	Policy G5-1 Testing options and proposals against uncertainty and change	<p>Plans, proposals and interventions taken forward in support of this plan must be tested against a range of uncertainties in the future.</p> <p>In particular, the four future travel scenarios identified in section 3 must be considered in proposals and business cases for schemes and interventions. This is to provide assurance that schemes and priorities remain relevant and robust set against a range of futures and uncertainties.</p> <p>There will be a presumption in favour of supporting plans, proposals and interventions that perform well against a range of uncertainties, rather than schemes that have been developed against a single set of forecasts or a narrow range of assumptions.</p>	<p>This is a general policy relating to a requirement for future-scenario testing for plans and proposals.</p> <p>No anticipated pathway which could give rise to LSE.</p>	No in-combination effect identified	Screened Out
	Policy G5-2 Piloting options, trials and new technologies in a climate of uncertainty and change	<p>We recognise that we do not always have all of the facts or have all of the right answers at our disposal when developing solutions to the transport problems and challenges set out in this LTP.</p> <p>We support the use of trials, pilots and innovations that support the vision and goals in this plan to test impacts in a “real life” setting that could include:</p> <ul style="list-style-type: none"> • New methods of collecting data on movement or on the condition of transport networks and assets • Behavioural pilots to understand barriers and incentives to making change • Pilots of ticketing and pricing options, including dynamic pricing to reduce or spread the demand for travel 	<p>This is a general policy that supports testing of new travel innovations and technology, to help support modal shift away from private car use/polluting vehicles. It does not include specific trials/proposals.</p> <p>No anticipated pathway which could give rise to LSE.</p>	No in-combination effect identified	Screened Out

Draft LTP Goal	Policy	Summarised policy text	Screening of Likely Significant Effects (LSE)	In-Combination	Screened in?
		<ul style="list-style-type: none"> • Small-scale trials that use new forms of data collection (including artificial intelligence) to inform the development of more permanent solutions or longer-term plans. • New technologies that can move people or transport in more efficient ways, including the ability to make changes in real time in response to circumstances. <p>In particular, measures to trial and evaluate the impact of measures to reprioritise road space in line with Principle 5: Adopting a sustainable movement hierarchy in all we do will be encouraged. This is especially important where public support is untested or where the evidence is inconclusive. This will include temporary trials of car-free environments, road closures, low speed zones and active travel and bus priority measures.</p>			
	Policy G5-3 Taking a Smart Cities approach - Digital Technology and Artificial Intelligence	<p>The LCRCA will support trials and testbed of measures that support the aims of this LTP through a smart cities approach. This will include the management of traffic (road and rail) in new and more efficient ways utilising live data and real time.</p> <p>Digital technology is wholly reliant on the right infrastructure, much of which is located or buried within the transport assets,</p> <p>We will seek to ensure that our future pipeline of transport schemes contributes to the provision of digital connectivity through:</p> <ol style="list-style-type: none"> 1. Requiring new/refurbished transport nodes to include active provision for 5G. 2. Including the provision of 4G/5G to existing rail stations in our transport pipeline. 3. Requiring all scheme promoters to consider the opportunity to improve digital connectivity coverage as part of pipeline schemes through the adoption of Dig Once (applying to masts and fixed line) principle 	<p>This is a general policy that supports the increased use of smart data and technology and ensures new infrastructure includes provision for up-to-date technology. It does not relate to specific proposals.</p> <p>No anticipated pathway which could give rise to LSE.</p>	No in-combination effect identified	Screened Out
	Policy G5-4 Supporting new vehicle technology - electrification and autonomy	<p>The LCRCA will facilitate the transition from petrol and diesel vehicles to electric and other sustainable fuels in a technology-agnostic way. New fuels may include electrical and battery power, green hydrogen, ammonia, methanol and sustainable aviation fuels.</p> <p>As a more advanced technology, the electrification of cars and vans will be supported through the Local Vehicle Infrastructure Fund (LEVI) programme as the principal pump priming programme over the LTP's lifetime. This will include a mix of on-street low powered chargers and high capacity "hub" chargers.</p>	<p>Overall, this policy seeks to encourage the switch to electric or other sustainable fuels and promote decarbonisation of the transport network.</p> <p>Caution should be applied to promoting ammonia as a new fuel because of its tailpipe emissions and potential impacts on Habitats sites.</p> <p>Use of electric, or other low and zero emission vehicles, will reduce releases of NO_x/NO₂ at the point of use and in the surrounding area. This policy is therefore compatible with the</p>	No in-combination effect identified	Screened Out

Draft LTP Goal	Policy	Summarised policy text	Screening of Likely Significant Effects (LSE)	In-Combination	Screened in?
		<p>The CA will focus on facilitating and integrating charging proposals with the development of the wider transport network, including how EVs can interface with the bus, rail, ferry, e-scooter, walking and cycling networks. It will partner with operators to provide mapping and evidence, access to sites and premises, supporting land deals, facilitating infrastructure and power grid capacity.</p> <p>The electrification of mass transit and associated infrastructure (e.g. the electrification of rail lines and electric or hydrogen powers buses, vans, HGVs, ferries and shipping) will be prioritised locally, especially where such measures can be included in a package of measures aimed at addressing problems or priorities in a specific area, and by engagement with industry, sub-national and national bodies.</p>	<p>aims of conserving the integrity of Habitats sites by reducing traffic contributions to NO_x and nitrogen deposition levels.</p> <p>Overall, policy likely to benefit local air quality and Habitats sites. Therefore, no LSE.</p>		

7.2 AIR QUALITY COMMENTARY

- 7.2.1. Whilst all Habitats sites within 200m of the road edge could be affected as a result of changes in traffic due to the implementation of the draft LTP4, the greatest risk of impacts occurs where air pollution is listed as a pressure or threat (see Table 5-2) and where there are strategic or main roads within 200m of the identified Habitats site. Of those Habitats sites where air pollution is listed as a pressure or threat, the following are considered to be at the highest risk due to their proximity to major roads:
- Manchester Mosses SAC which is adjacent to the M62 (Birchwood Interchange);
 - Sefton Coast SAC which is within 200m of the A565 and in close proximity to the urban areas of Southport and Formby;
 - Dee Estuary SAC, SPA and Ramsar site which is adjacent to, and within 200m in other areas of, the A548, A554 and A5119 and in close proximity to a number of urban areas including West Kirby, Neston and Flint; and
 - Ribble & Alt Estuaries SPA and Ramsar site which is within 100m of the A584 and near the built-up coastal area.
- 7.2.2. The following is considered to be at medium risk of changes in air pollution as a result of the draft LTP4 as whilst it is not within 200m of any main roads, it is located within the built-up coastal area, in proximity to a number of urban towns:
- Mersey Narrows & North Wirral Foreshore SPA and Ramsar site.
- 7.2.3. The following is considered to be at low risk of changes in air pollution as a result of the draft LTP4 due to being located well away from major roads and urban centres:
- West Midlands Mosses SAC.

8 CONCLUSIONS

- 8.1.1. This document provides guidance on the likely data sources, information requirements and the process of HRA screening and other stages of assessment if necessary. It also provides an indication of where the ecological implications of the draft LTP4 will lie and which Habitats sites are vulnerable to known pressures, threats and existing air quality impacts.
- 8.1.2. There are 21 Habitats sites within Liverpool City Region and 10km of its boundary, and there will be implications for some of these sites from the proposals and objectives in the draft LTP4.
- 8.1.3. The draft LTP4 proposes an approach for addressing current and future transport issues in the LCRCA and in this document it has been subject to HRA screening for potential LSE on Habitats sites at a strategic level.
- 8.1.4. The majority of policies have been screened-out due to their nugatory or beneficial effects on Habitats sites. However, it has not been possible to screen out LSE entirely as a number of the identified Habitats sites are located in close proximity (200m) of local and/or strategic road routes and areas of land that may be affected by the non-location/detail specific high-level measures. Therefore, six policies (G2-2, G2-4, G2-5, G2-6, G2-7 and G3-2) have been screened-in for their further consideration at Stage 2 AA.
- 8.1.5. These policies are related primarily to driving a modal shift towards sustainable transport options but contain aspects that suggest either land take to facilitate active travel and/or the potential for traffic re-distribution arising as a direct result of the policies. Due to the uncertainty of where new measures may be constructed or where traffic re-distribution may occur, which could contribute to an increase in air pollution impacts at Habitat sites where this is a known pressure or threat, it cannot be concluded that there is no pathway to LSE associated with these policies.
- 8.1.6. Furthermore, two of the policies include support for NPR. This currently promotes a new rail route between Liverpool and Warrington, a notable new piece of transport infrastructure and a major engineering scheme with an unconfirmed route corridor. This uncertainty of potential pathways of impact has been presented at a larger scale within the HRA (Stage 2 AA) for Transport for the North – Strategic Transport Plan 2 (Arup, January 2024). The inclusion of NPR and the specific elements within the Draft LTP4 Zol, in the absence of further detail, means it cannot be concluded that there is no pathway to LSE associated with these two policies.
- 8.1.7. Following the screening stage, if LSE on Habitats sites are unable to be ruled out, the plan-making authority is required, under Regulation 61 of the Habitats Regulations 2017 (as amended), to make an AA of the implications of the plan for Habitats sites, in view of their conservation objectives. EC Guidance¹⁹ states that the AA should consider the impacts of the plan (either alone or in

¹⁹ Assessment of plans and projects significantly affecting European sites (Habitats sites). Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Commission Environment DG, November 2001. Available at: https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf.

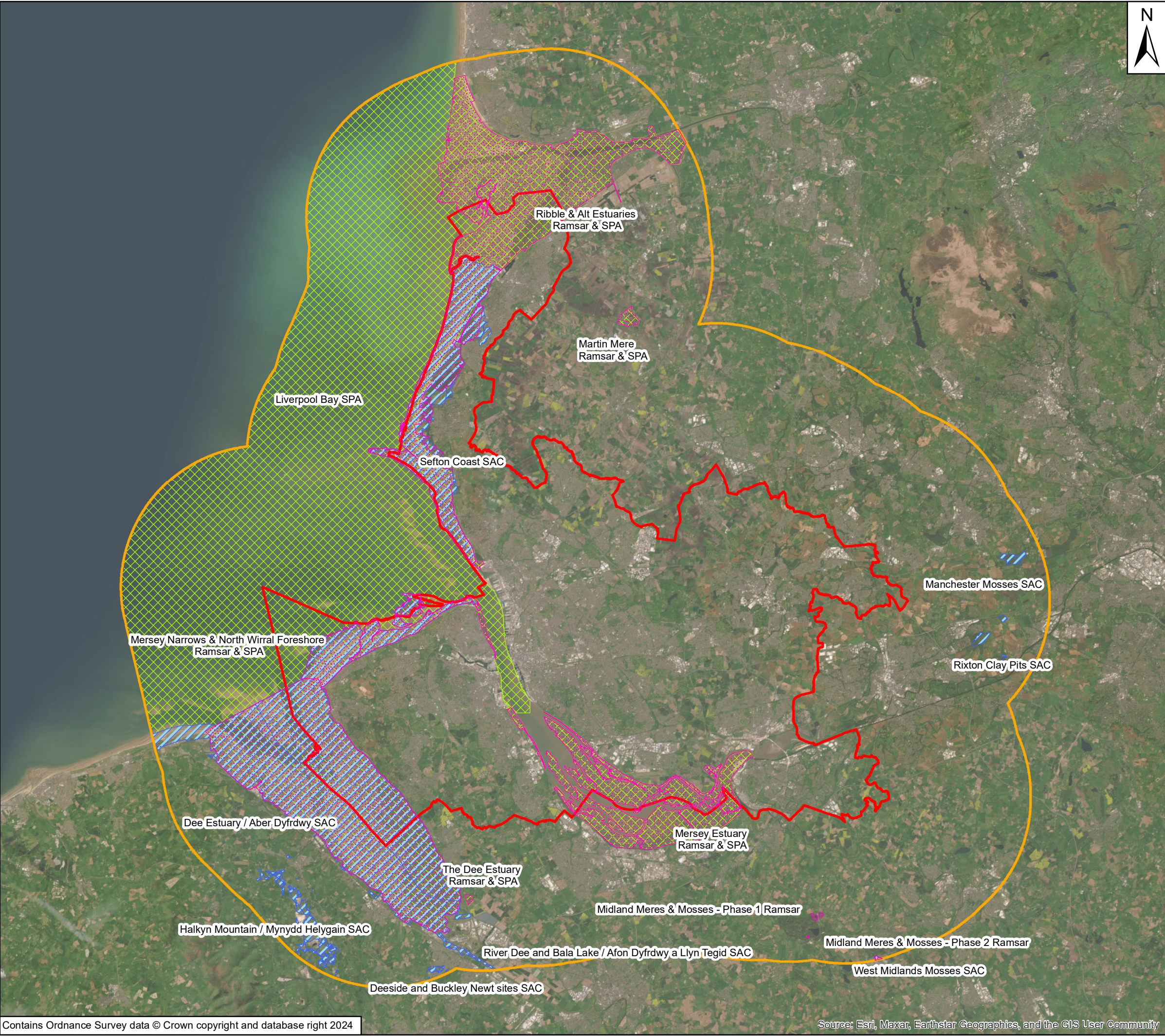
combination with other projects or plans) on the integrity of Habitats sites with respect to their conservation objectives and to their structure and function.

- 8.1.8. The policies screened-in should be taken forward to Appropriate Assessment.
- 8.1.9. Statutory consultation forms an essential part of an HRA exercise and the conclusions and recommendations of this HRA report are subject to consultation comments and advice from Natural England.

FIGURES

Figure 2 - Habitats Sites within 10km

Figure 3 - Habitats Sites and Roads Within 200m



N

Key

Site Boundary

10km Buffer

Ramsar Sites

Special Areas of Conservation (SAC)

Special Protection Areas (SPA)

0500010000

Metres

wsp

Client:

Liverpool City Region Combined Authority

Project:

LOCAL TRANSPORT PLAN HRA

Title

Habitats Sites within 10km

Drawing No:

Figure 2

Date:

13/05/2024

Scale:

260,000 @ A3

Drawn:

SD

Checked:

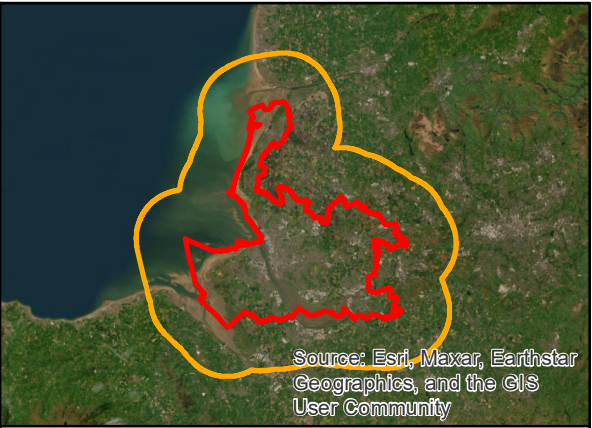
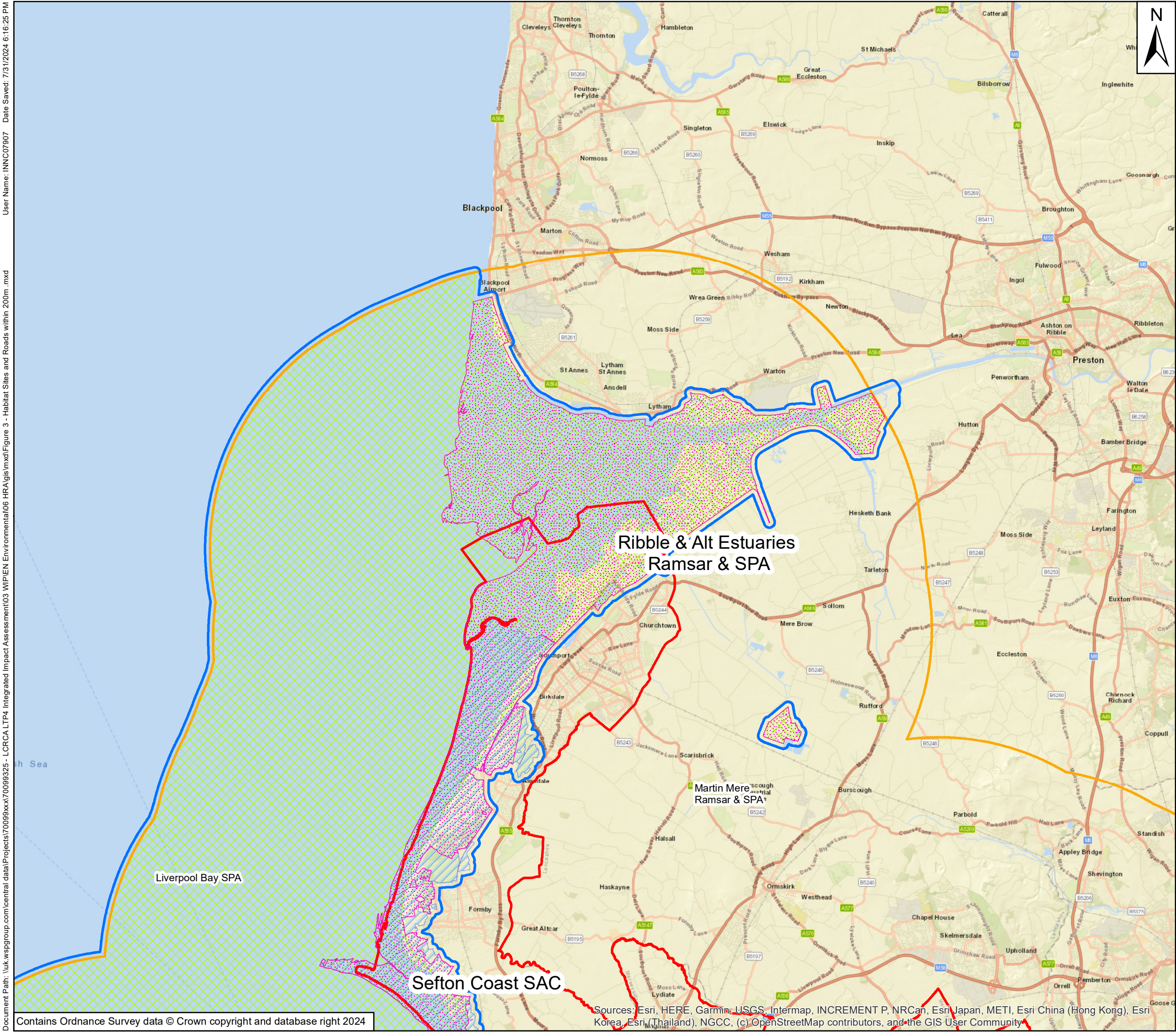
XXX

Approved:

XXX

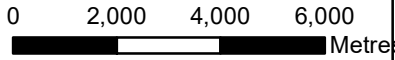
Contains Ordnance Survey data © Crown copyright and database right 2024

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Key

- Site Boundary
- 10km Buffer
- 200m Buffer
- Ramsar Sites
- Special Areas of Conservation (SAC)
- Special Protection Areas (SPA)



Client:

Liverpool City Region Combined Authority

Project:

LOCAL TRANSPORT PLAN HRA

Title

Habitats Sites and Roads within 200m

Page 1 of 3

Drawing No: Figure 3

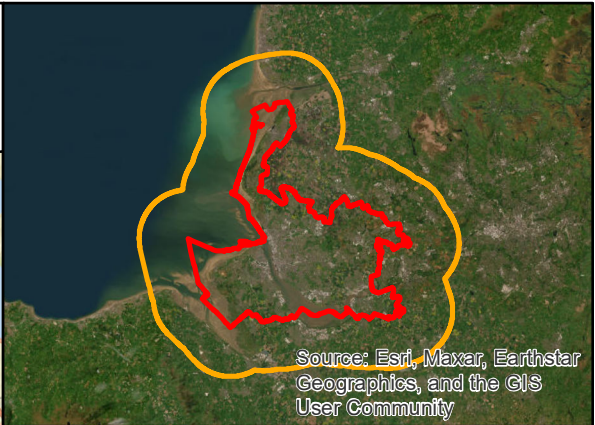
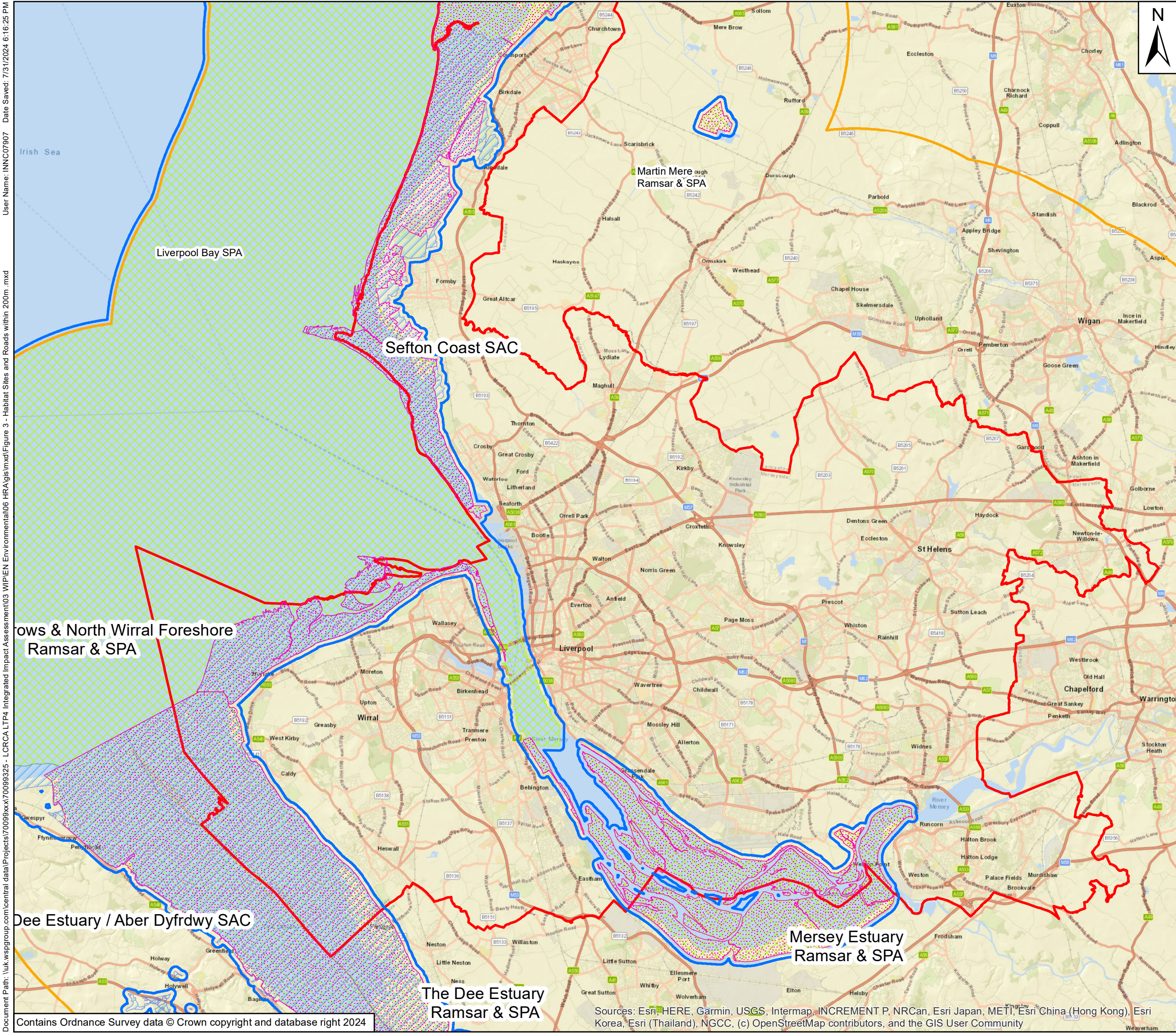
Date: 7/31/2024

Scale: 145,700 @ A3

Drawn: KS

Checked: KT

Approved: XXX



Key

- Site Boundary
- 10km Buffer
- 200m Buffer
- Ramsar Sites
- Special Areas of Conservation (SAC)
- Special Protection Areas (SPA)

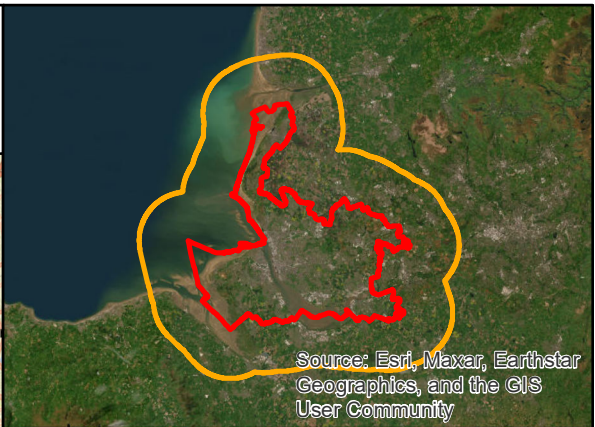
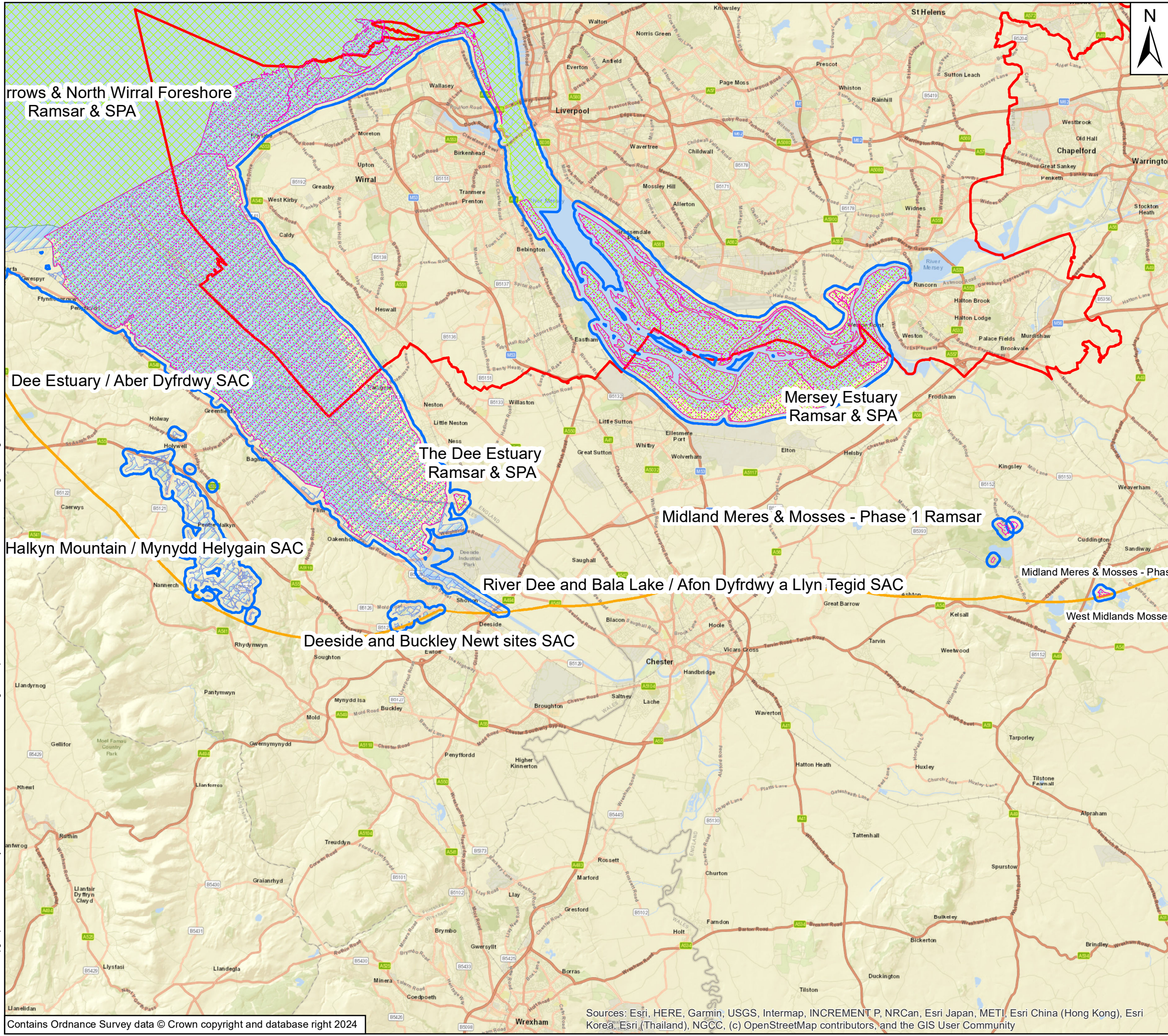
0 2,000 4,000 6,000 Metres

Client:
Liverpool City Region Combined Authority

Project:
LOCAL TRANSPORT PLAN HRA

Title:
Habitats Sites and Roads within 200m
Page 2 of 3

Drawing No:	Figure 3	Drawn:	KS
Date:	7/31/2024	Checked:	KT
Scale:	163,600 @ A3	Approved:	XXX



Key

- Site Boundary
- 10km Buffer
- 200m Buffer
- Ramsar Sites
- Special Areas of Conservation (SAC)
- Special Protection Areas (SPA)

0 2,000 4,000 6,000 Metres

Client:
Liverpool City Region Combined Authority

Project:
LOCAL TRANSPORT PLAN HRA

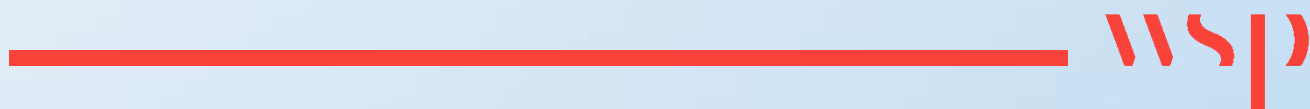
Title:
Habitats Sites and Roads within 200m
Page 3 of 3

Drawing No:	Figure 3	Drawn:	KS
Date:	7/31/2024	Checked:	KT
Scale:	164,900 @ A3	Approved:	XXX

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Appendix A

LEGISLATIVE BACKGROUND, POLICY CONTEXT AND CEJU RULINGS



LEGISLATIVE BACKGROUND

The Conservation of Habitats and Species Regulations (2017, as amended) (the 'Habitats Regulations') protects habitats and species of Habitats Sites. The Habitats Regulations establishes a network of internationally important sites designated for their ecological status. SACs are designated under the Habitats Regulations and promote the protection of flora, fauna and habitats. SPAs are designated in order to protect vulnerable and migratory bird species. These sites combine to create a Europe-wide 'Natura 2000' network of designated sites.

Defra guidance (2021) states that Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) in the UK no longer form part of the EU's Natura 2000 ecological network. The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 have created a national site network on land and at sea, including both the inshore and offshore marine areas in the UK. The national site network includes:

- Existing SACs and SPAs; and
- New SACs and SPAs designated under these Regulations.

Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new national site network.

Under the Habitats Regulations 'Competent Authorities' must assess Plans, in this case the LTP and associated plans, for their potential to cause Likely Significant Effects (LSE) on European sites. Where the Plan may lead to LSE it must be subject to an HRA to determine whether there will be adverse effects to any European Sites. Any Plan that would lead to adverse effects on the integrity of European Site(s) cannot be permitted without meeting strict additional tests.

According to the Habitats Regulations, any plan or project likely to have a significant effect on a Habitats Site, either individually or in combination with other plans or projects should undergo an appropriate assessment to determine its implications for the site. The Competent Authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site concerned.

The purpose of the Habitats Sites network is preservation of examples of species and habitats across the UK and Europe, rather than preservation of individual sites. In exceptional circumstances, a plan or project may still be allowed to go ahead, in spite of a negative assessment, provided there are no alternative solutions and the plan or project is considered to be of overriding public interest²⁰. In such cases the UK Government must take appropriate compensatory measures to ensure that the overall coherence of the Natura 2000 Network is protected.

²⁰ An exact definition of 'imperative reasons of overriding public interest' is not provided, but EC guidance states 'It is reasonable to consider that the "imperative reasons of overriding public interest, including those of social and economic nature" refer to situations where plans or projects envisaged prove to be indispensable:
- within the framework of actions or policies aiming to protect fundamental values for the citizens' life (health, safety, environment);
- within the framework of fundamental policies for the State and the Society;
- within the framework of carrying out activities of economic or social nature, fulfilling specific obligations of public service.'

Regulation 63 (1) of the Habitats Regulations states that ‘...a Competent Authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which—

(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and

(b) is not directly connected with or necessary to the management of that site,

—must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.’

The Habitats Regulations also make allowance for projects or plans to be completed if they satisfy ‘imperative reasons of overriding public interest’²¹. Regulation 64 relates to such situations.

The requirements of the Habitats Regulations are usually met by undertaking an initial two-stage approach; Stage 1 screening of potential LSEs on the qualifying features and conservation objectives of European sites, and then, for those Habitats sites where this applies, a Stage 2 ‘Appropriate Assessment’ of the adverse effects on the integrity of those Habitats sites of the LTP policies.

It should be noted that the competent authority (Liverpool City Region Council) undertakes the Screening and Appropriate Assessment, the consultant provides the information or evidence-base to allow this to be completed. The competent authority must include consideration of ‘in-combination’ effects arising from other projects and plans within their assessment, as well as those potentially acting alone. Given the scale of the HRA the in-combination exercise will likely consider in-County, as well as outside-County interactions with Habitats sites.

There are a number of recent Court of Justice of the European Union (CJEU) rulings which are relevant to this HRA and which will still be taken into consideration after the UK leaves the European Union. These are given below for information.

²¹ ‘(a) reasons relating to human health, public safety or beneficial consequences of primary importance to the environment; or, (b) any other reasons which the Competent Authority, having due regard to the opinion of the Commission, consider to be imperative reasons of overriding public interest.’

THE COUNCIL FOR JUSTICE OF THE EUROPEAN UNION (CJEU) RULINGS

A number of CJEU rulings are relevant to the HRA screening exercise and are noted below. At the present time the position, under section 6(3) EU (Withdrawal) Act 2018 (as amended), is that the courts in the UK, with the sole exception of the Supreme Court, will continue to be bound by HRA judgments handed down by the CJEU and by domestic courts prior to 31 December 2020 when interpreting the Conservation of Habitats and Species Regulations 2017 (as amended). This is the case as long as the Conservation of Habitats and Species Regulations 2017 (as amended) remain unmodified by Parliament. The Supreme Court will, however, be at liberty to depart from these judgments after 31 December 2020 if they consider it appropriate to do so.²²

THE WEALDEN JUDGEMENT

The Wealden Judgement, handed down in March 2017, has introduced additional complexities into the assessment process in relation to in-combination and cumulative effects.

Prior to this Judgement, air quality impacts on Habitats Sites were only considered alongside roads where the traffic growth associated with the individual Plan or Project being assessed exceeded specified screening criteria. These criteria were typically based on changes in vehicle movements and taken from the DMRB (HA207/07), namely: increases of 1000 vehicles per day or 200 Heavy Goods Vehicles per day (as Annual Average Daily Traffic (AADT)).

The Wealden Judgement means that every single plan or project which, alone, is predicted to give rise to any increase in traffic or other air emission (however small) must be subjected to an in-combination assessment with other plans or projects (which would include those plans or projects with a similar tiny impact). However, the judgement did not rule out the application of thresholds in principal and this approach is normally taken as the basis of the assessment.

The judgement has led to a more detailed analysis of three key questions to discern which plans and project are those where a detailed “in combination” assessment is required in relation to changes in air quality:

1. Is your plan or project putting emissions into the air?;
2. If so, are those emissions at a level where they could actually be measured / perceived?; and
3. If so, is there a realistic (rather than hypothetical) risk that those emissions, alone, will have an adverse effect on the ecology of a SAC / SPA?

A fuller justification will be required when applying the threshold approach.

²² Freeths Habitats Regulations update 2020. Available at:
<https://communications.freeths.co.uk/44/1637/october-2020/the-habitats-regulations-assessment-regime-after-31-december-2020---how-will-it-look-.asp?sid=8bf6fad5-597a-43c6-8f70-61503ec0adb9>

PEOPLE OVER WIND (THE SWEETMAN CASE)

The Court of Justice of the European Union's (CJEU's) decision in the matter of People Over Wind and Sweetman v Coillte Teoranta (C-323/17) (hereafter referred to as the 'Sweetman Case'), states that:

'Article 6(3) must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an Appropriate Assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of measures intended to avoid or reduce the harmful effects of the plan or project on that site.'

In the new judgement the CJEU concluded that mitigation measures could not be considered as part of the project, and thus that the screening stage of HRA should not take account of them. This will undoubtedly be tested further in the courts in coming months and years, but the key issue is whether the mitigation measures proposed can genuinely be considered as part of the project, in that they would happen in any case, irrespective of the Habitats Site. If not, then they should be considered mitigation measures, and considered at the Appropriate Assessment stage of HRA.

This is an emerging issue for local authorities and means that, because of the potential for 'in-combination effects and the fact that HRA Screening should not take into account measures targeted at mitigating effects on Habitats Sites. Therefore, it is becoming increasingly commonplace for local authorities to conduct an Appropriate Assessment of all project, plans and planning applications (i.e. these are often no longer screened out, by way of an HRA Screening as has been the practise to date).

CJEU RULING IN THE NETHERLANDS NITROGEN AND AGRICULTURE CASES C-293/17 AND C-294/17

The final Court Judgement in relation to these two cases was handed down on the 7th November 2018. The ruling is still being reviewed by industry professionals and Natural England is yet to issue its Position Statement on the ruling. The judgement relates to the assessment of agricultural activities under the Habitats Regulations, but has potential implications for the assessment of changes in nitrogen (N) deposition in relation to air quality (as the air quality calculations draw upon N deposition rates from APIS and guidance within the DMRB which assumes a 2% reduction in N deposition year on year).

Of particular relevance to the assessment of air quality effects on Habitats Sites, the Court of Justice of the European Union ruled that:

"An 'appropriate assessment' may only take into account the existence of Article 6(1) 'conservation measures', or Article 6(2) 'preventive measures', or specific measures adopted for a conservation programme, or 'autonomous' measures not in the programme, if the expected benefits of those measures are certain at the time of the assessment.

The Ruling makes clear that certainty and a thorough and in-depth examination of the scientific soundness is required that there is no reasonable scientific doubt as to the absence of adverse effects of each plan or project on the integrity of the site concerned.

KOKOTT RULING

In the Opinion of Advocate General Kokott in Case C-6/04 Commission v UK [2005] ECR I-9017 at paragraph 49 she noted that an assessment of plans cannot by definition take into account all effects because

“Many details are regularly not settled until the time of the final permission” and “[i]t would also hardly be proper to require a greater level of detail in preceding plans or the abolition of multi-stage planning and approval procedures so that the assessment of implications can be concentrated on one point in the procedure. Rather, adverse effects on areas of conservation must be assessed at every relevant stage of the procedure to the extent possible on the basis of the precision of the plan. This assessment is to be updated with increasing specificity in subsequent stages of the procedure”.

Appendix B

**HABITATS SITES DETAILS,
INCLUDING QUALIFYING FEATURES
AND CONSERVATION OBJECTIVES**

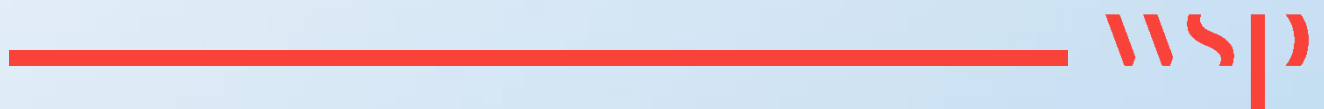


Table B-1 - Habitats Sites Details

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
The Dee Estuary Ramsar site	Inside the Site boundary, towards the West.	13153.67	<p>The Dee Estuary, one of the UK's top ten, is a large, sheltered, funnel-shaped estuary known for its significant waterfowl and wader populations. Despite historical land-claims since the 1730s, it continues to support a variety of habitats including intertidal sand and mudflats, saltmarshes, and transitional swamp vegetation. Notable features include the three sandstone islands of Hilbre, the sand dune system between the Point of Ayr and Prestatyn in Wales, and Red Rocks in England. The estuary also includes reclaimed Welsh coastal fields used by waterfowl, and freshwater lagoons at Shotton and Inner Marsh Farm. The two shorelines contrast sharply, with industrial use in Wales and residential and recreational use in England.²⁴</p> <p>Ramsar Criterion 1</p> <ul style="list-style-type: none"> Extensive intertidal mud and sand flats (20 km by 9 km) with large expanses of saltmarsh towards the head of the estuary. <p>Ramsar Criterion 2</p> <ul style="list-style-type: none"> It supports breeding colonies of the vulnerable Natterjack Toad, <i>Epidalea calamita</i>. <p>Ramsar Criterion 5</p> <ul style="list-style-type: none"> Non-breeding season regularly supports 120,726 individual waterbirds (5 year peak mean 1994/5 – 1998/9). <p>Ramsar Criterion 6 Species/populations occurring at levels of international importance. Qualifying species include:</p> <ul style="list-style-type: none"> Teal , <i>Anas crecca</i> Shelduck , <i>Tadorna tadorna</i> Oystercatcher, <i>Haematopus ostralegus</i> Curlew , <i>Numenius Arquata</i> Pintail , <i>Anas acuta</i> 	<ul style="list-style-type: none"> Introduction/invasion of exotic animal species Introduction/invasion of non-native plant species Overfishing Pollution- Industrial waste General disturbance from human activities Transport infrastructure development Sand dune erosion and accretion along the North Wales open coast²⁵ 	N/A	N/A

²³ Threats/pressures highlighted in green should be given primary consideration in screening and appropriate assessment of the LTP policies, those highlighted amber should be considered as indirect effects as a result of the LTP policies and those highlighted red are unlikely to be considerations in screening and appropriate assessment of the LTP policies.

²⁴ The Dee Estuary Ramsar Information Sheet. Available at [Information Sheet on Ramsar Wetlands \(RIS\) \(jncc.gov.uk\)](#). (Accessed on 29/04/2024)

²⁵ The Dee Estuary RAMSAR Information Sheet. Available at [Information Sheet on Ramsar Wetlands \(RIS\) \(jncc.gov.uk\)](#). (Accessed on 29/04/2024)

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
			<ul style="list-style-type: none"> ▪ Grey plover , <i>Pluvialis squatarola</i> ▪ Knot , <i>Calidris canutus islandica</i> ▪ Dunlin , <i>Calidris alpina alpina</i> ▪ Black-tailed godwit , <i>Limosa limosa islandica</i> ▪ Bar-tailed godwit , <i>Limosa lapponica</i> ▪ Redshank, <i>Tringa totanus</i> 			
Midland Meres and Mosses Phase 1 Ramsar sites	Approximately 6.7kms to the south of the Site.	513.35	<p>The Meres & Mosses form a geographically discrete series of lowland open water and peatland sites in the north-west Midlands of England. These have developed in natural depressions in the glacial drift left by receding ice sheets which formerly covered the Cheshire/Shropshire Plain. The 16 component sites include open water bodies (meres), the majority of which are nutrient-rich with associated fringing habitats; reed swamps, fen, carr & damp pasture. Peat accumulation has resulted in nutrient poor peat bogs (mosses) forming in some sites in the fringes of meres or completely infilling basins. In a few cases the result is a floating quaking bog or schwingmoor. The wide range of resulting habitats support nationally important flora & fauna.²⁶</p> <p>Ramsar criterion 1</p> <ul style="list-style-type: none"> ▪ The site comprises a diverse range of habitats from open water to raised bog. <p>Ramsar criterion 2</p> <ul style="list-style-type: none"> ▪ Supports a number of rare species of plants associated with wetlands including five nationally scarce species together with an assemblage of rare wetland invertebrates (three endangered insects and five other British Red Data Book species of invertebrates). 	<ul style="list-style-type: none"> ▪ Eutrophication ▪ Introduction/invasion of non-native plant species²⁷ 	N/A	N/A

²⁶ Midland Meres and Mosses Phase 1 Ramsar Information Sheet. Available at <https://jncc.gov.uk/jncc-assets/RIS/UK11043.pdf> (Accessed on 29/04/2024).

²⁷ Midland Meres and Mosses Phase 1 Ramsar Information Sheet. Available at <https://jncc.gov.uk/jncc-assets/RIS/UK11043.pdf> (Accessed on 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
Midland Meres and Mosses Phase 2 Ramsar sites	Approximately 8kms to the south of the Site.	1588.24	<p>The Meres and Mosses form a geographically diverse series of lowland open water and peatland sites in the north-west Midlands of England and north-east Wales. These have developed in natural depressions in the glacial drift left by receding ice sheets which formerly covered the Cheshire/Liverpool City Region Plain. The 18 component sites include open water bodies (meres), the majority of which are nutrient-rich with associated fringing habitats, reed swamp, fen, carr and damp pasture. Peat accumulation has resulted in the nutrient-poor peat bogs (mosses) forming in some sites on the fringes of the meres or completely infilling basins. In a few cases the result is a floating quaking bog or swingmoor. The wide range of resulting habitats support nationally important flora and fauna²⁸.</p> <p>Ramsar criterion 1</p> <ul style="list-style-type: none">The site comprises a diverse range of habitats from open water to raised bog. <p>Ramsar criterion 2</p> <ul style="list-style-type: none">Supports a number of rare species of plants associated with wetlands, including the nationally scarce cowbane <i>Cicuta virosa</i> and, elongated sedge <i>Carex elongata</i>. Also present are the nationally scarce bryophytes <i>Dicranum affine</i> and <i>Sphagnum pulchrum</i>.Also supports an assemblage of invertebrates including several rare species. There are 16 species of British Red Data Book insect listed for this site including the following endangered species: the moth <i>Glyphipteryx lathamella</i>, the caddisfly <i>Hagenella clathrata</i> and the sawfly <i>Trichiosoma vitellinae</i>²⁹.	<ul style="list-style-type: none">EutrophicationIntroduction/invasion of non-native plant speciesPollution – pesticides/agricultural runoff³⁰	N/A	N/A

²⁸ Midland Meres and Mosses Phase 2 Ramsar Information Sheet. Available at <https://jncc.gov.uk/jncc-assets/RIS/UK11080.pdf> (Accessed on 29/04/2024).

²⁹ Midland Meres and Mosses Phase 2 Ramsar Information Sheet. Available at <https://jncc.gov.uk/jncc-assets/RIS/UK11080.pdf> (Accessed on 29/04/2024).

³⁰ Midland Meres and Mosses Phase 2 Ramsar Information Sheet. Available at <https://jncc.gov.uk/jncc-assets/RIS/UK11080.pdf> (Accessed on 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
Martin Mere Ramsar site	Approximately 5kms to the east of the Site.	119.89	<p>Martin Mere, part of a former lake and mire on the Lancashire Coastal Plain, was transformed into an internationally important wildfowl refuge by the Wildfowl and Wetlands Trust in 1972. The trust purchased 147 hectares of land, mainly rough damp pasture, and through positive management, created areas of open water, seasonally flooded marsh, reed swamp habitats, and maintained diverse grasslands. The site is particularly valued for its species-rich pastures, which support whorled caraway, a rarity in northern England. The refuge is crucial for a large and diverse bird community. In 2002, an additional 63 hectares were purchased to restore a variety of wetland habitats, all key to the Biodiversity Action Plan within the Lancashire Plain and Valleys Natural Area.³¹</p> <p>Ramsar criterion 5</p> <ul style="list-style-type: none"> Assemblages of international importance: Species with peak counts in winter: 25306 waterfowl (5 year peak mean 1998/99-2002/2003) <p>Ramsar criterion 6</p> <p>Species/populations occurring at levels of international importance. Qualifying species include:</p> <ul style="list-style-type: none"> Tundra swan, <i>Cygnus columbianus bewickii</i> Whooper swan, <i>Cygnus cygnus</i> Eurasian wigeon, <i>Anas Penelope</i> Northern pintail, <i>Anas acuta</i> 	N/A	N/A	N/A
Mersey Narrows & North Wirral Foreshore Ramsar site	Inside the Site boundary, towards the west.	2,078	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	<ul style="list-style-type: none"> Unspecific Development- Urban use Recreation/ Tourism disturbance Vegetation succession 	N/A	N/A

³¹ Martin Mere Ramsar Information sheet. Available at <https://jncc.gov.uk/jncc-assets/RIS/UK11039.pdf> (Accessed on 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
			<p>high tide roost sites, it is an area of intertidal sands and mudflats with embryonic saltmarsh.</p> <p>Ramsar criterion 4</p> <ul style="list-style-type: none"> 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>Ramsar criterion 5</p> <ul style="list-style-type: none"> 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>Ramsar criterion 6</p> <ul style="list-style-type: none"> 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.³² 			
Mersey Estuary Ramsar site	Inside the Site boundary, towards the south.	5023.35	<p>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.³³</p> <p>Ramsar criterion 5</p> <ul style="list-style-type: none"> Assemblages of international importance: Species with peak counts in winter: 89576 waterfowl (5 year peak mean 1998/99-2002/2003) 	N/A	N/A	N/A

³² North Wirral Foreshore Ramsar Information sheet. Available at: <https://rsis.ramsar.org/RISapp/files/RISrep/GB2202RIS.pdf> (Accessed on 29/04/2024).

³³ Martin Mere Ramsar Information sheet. Available at <https://jncc.gov.uk/jncc-assets/RIS/UK11041.pdf> (Accessed on 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
			Ramsar criterion 6 Species/populations occurring at levels of international importance. Qualifying species include: <ul style="list-style-type: none"> Species with peak counts in spring/autumn: <ul style="list-style-type: none"> Common shelduck , <i>Tadorna tadorna</i> Black-tailed godwit , <i>Limosa limosa islandica</i> Common redshank , <i>Tringa totanus tetanus</i> Species with peak counts in winter: <ul style="list-style-type: none"> Eurasian teal , <i>Anas crecca</i> Northern pintail , <i>Anas acuta</i> Dunlin , <i>Calidris alpina alpina</i> 			
Ribble and Alt Estuaries Ramsar site	Inside the Site boundary, towards the north.	13464.1	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 support vegetation communities and amphibian populations of international importance. ³⁴ Ramsar criterion 2 <ul style="list-style-type: none"> This site supports up to 40% of the Great Britain population of natterjack toads <i>Bufo calamita</i>. Ramsar criterion 5 <ul style="list-style-type: none"> Assemblages of international importance: Species with peak counts in winter: 222038 waterfowl (5 year peak mean 1998/99-2002/2003) Ramsar criterion 6 Species/populations occurring at levels of international importance. Qualifying species include: <ul style="list-style-type: none"> Species regularly supported during the breeding season: 	<ul style="list-style-type: none"> Erosion³⁵ 	N/A	N/A

³⁴ Ribble and Alt Estuaries Ramsar Information sheet. Available at <https://jncc.gov.uk/jncc-assets/RIS/UK11057.pdf> (Accessed on 29/04/2024)

³⁵ Ribble and Alt Estuaries Ramsar Information sheet. Available at <https://jncc.gov.uk/jncc-assets/RIS/UK11057.pdf> (Accessed on 29/04/2024)

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
			<ul style="list-style-type: none"> ○ Lesser black-backed gull , <i>Larus fuscus graellsii</i> ▪ Species with peak counts in spring/autumn: <ul style="list-style-type: none"> ○ Ringed plover , <i>Charadrius hiaticula</i> ○ Grey plover , <i>Pluvialis squatarola</i> ○ Red knot , <i>Calidris canutus islandica</i> ○ Sanderling , <i>Calidris alba</i> ○ Dunlin , <i>Calidris alpina alpina</i> ○ Black-tailed godwit , <i>Limosa limosa islandica</i> ○ Common redshank , <i>Tringa totanus tetanus</i> ○ Lesser black-backed gull , <i>Larus fuscus graellsii</i> ▪ Species with peak counts in winter: <ul style="list-style-type: none"> ○ Tundra swan , <i>Cygnus columbianus bewickii</i> ○ Whooper swan , <i>Cygnus cygnus</i> ○ Pink-footed goose , <i>Anser brachyrhynchus</i> ○ Common shelduck , <i>Tadorna tadorna</i> ○ Eurasian wigeon , <i>Anas Penelope</i> ○ Eurasian teal , <i>Anas crecca</i> ○ Northern pintail , <i>Anas acuta</i> ○ Eurasian oystercatcher , <i>Haematopus ostralegus ostralegus</i> ○ Bar-tailed godwit , <i>Limosa lapponica lapponica</i> 			
West Midlands Mosses SAC	Approximately 12kms to the south-east of the Site	184.62	<p>Annex I habitats that are a primary reason for selection of this site</p> <ul style="list-style-type: none"> ▪ 3160 Natural dystrophic lakes and ponds ▪ 3160 Natural dystrophic lakes and ponds <p>West Midlands Mosses contains three pools, one at Clarepool Moss and two at Abbots Moss, that are examples of dystrophic lakes and ponds in the lowlands of England and Wales, where this habitat type is rare. The lake at Clarepool Moss is unusual as a dystrophic type on account of its relatively base-rich character, which is reflected in the presence of a diverse fauna and flora. The</p>	<ul style="list-style-type: none"> ▪ J02 - Human induced changes in hydraulic conditions ▪ K02 - Biocenotic evolution, succession ▪ H04 - Air pollution, air-borne pollutants ▪ H02 - Pollution to groundwater (point sources and diffuse sources) ▪ F03 - Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including 	<ul style="list-style-type: none"> ▪ P - Air pollution: impact of atmospheric nitrogen deposition ▪ T – Habitat fragmentation ▪ P – Water pollution ▪ P – Hydrological changes ▪ P – Inappropriate scrub control ▪ T - Game management: pheasant rearing ▪ T – Forestry and woodland management³⁸ 	<p>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the</p> <p>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

³⁸ West Midlands Mosses SAC Site Improvement Plan. Available at: <http://publications.naturalengland.org.uk/publication/5422476326600704> (Accessed 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
			<p>two at Abbots Moss are more typical, base-poor examples. The dystrophic lakes and ponds at this site are associated with Schwingmoor development, a characteristic of this habitat type in the West Midlands. Schwingmoor is an advancing floating raft of bog-moss Sphagnum, often containing NVC type M3 <i>Eriophorum angustifolium</i> bog pool community, which grows from the edge of the pool and can completely cover over the pool; the site has also been selected for this Annex I feature (7140 Transition mires and quaking bogs).</p> <ul style="list-style-type: none"> 7140 Transition mires and quaking bogs West Midlands Mosses represents Schwingmoor vegetation. Floating rafts of Sphagnum-dominated vegetation have developed over semi-liquid substrates within basins. In the UK this type of Sphagnum-dominated vegetation with a scatter of sedges <i>Carex</i> species and cranberry <i>Vaccinium oxycoccos</i> is confined to this part of England and mid-Wales. 91D0 Bog woodland³⁶ 	<p>collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)³⁷.</p>		<ul style="list-style-type: none"> The structure and function (including typical species) of qualifying natural habitats, and The supporting processes on which qualifying natural habitats rely³⁹
River Dee and Bala Lake/ Afon Dyfrdwy a Llyn Tegid SAC	Approximately 13kms to the south of the Site.	1271.32	<p>Annex I habitats that are a primary reason for selection of this site</p> <ul style="list-style-type: none"> 3260 Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and Callitriche-Batrachion vegetation <p>Annex II species that are a primary reason for selection of this site</p> <ul style="list-style-type: none"> 1106 Atlantic salmon <i>Salmo salar</i> 1831 Floating water-plantain <i>Luronium natans</i> <p>Annex II species present as a qualifying feature, but not a primary reason for site selection</p> <ul style="list-style-type: none"> 1095 Sea lamprey <i>Petromyzon marinus</i> 	<p>Positive impacts:</p> <ul style="list-style-type: none"> J03 – Other ecosystem modifications⁴¹ 	N/A ⁴²	<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

³⁶ West Midland Mosses SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0013595.pdf> (Accessed 29/04/2024).

³⁷ West Midland Mosses SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0013595.pdf> (Accessed 29/04/2024).

³⁹ West Midlands Mosses SAC Conservation Objectives. Available at: <http://publications.naturalengland.org.uk/publication/6449667604742144> (Accessed 29/04/2024).

⁴¹ River Dee and Bala Lake/ Afon Dyfrdwy a Llyn Tegid SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030252.pdf> (Accessed 29/04/2024).

⁴² River Dee and Bala Lake/ Afon Dyfrdwy a Llyn Tegid SAC Site Improvement Plan. Available at: <http://publications.naturalengland.org.uk/publication/5069340692971520> (Accessed 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
			<ul style="list-style-type: none"> 1096 Brook lamprey <i>Lampetra planeri</i> 1099 River lamprey <i>Lampetra fluviatilis</i> 1163 Bullhead <i>Cottus gobio</i> 1355 Otter <i>Lutra lutra</i>⁴⁰ 			<ul style="list-style-type: none"> 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 site⁴³.
Rixton Clay Pits SAC	Approximately 5.2kms to the east of the Site	13.65	Annex II species that are a primary reason for selection of this site <ul style="list-style-type: none"> 1166 Great crested newt <i>Triturus cristatus</i>⁴⁴ 	Negative Impacts <ul style="list-style-type: none"> G05 - Other human intrusions and disturbances.⁴⁵ 	<ul style="list-style-type: none"> P/T- Direct impact from 3rd party⁴⁶ 	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; <ul style="list-style-type: none"> The extent and distribution of the habitats of qualifying species The structure and function of the habitats of qualifying species The supporting processes on which the habitats of qualifying species rely The populations of qualifying species, and, The distribution of qualifying species within the site.⁴⁷
Manchester Mosses SAC	Approximately 7.5kms to the east of the Site	170.49	Annex I habitats that are a primary reason for selection of this site <ul style="list-style-type: none"> 7120 Degraded raised bogs still capable of natural regeneration⁴⁸ 	Negative Impacts ⁴⁹ <ul style="list-style-type: none"> H04 - Air pollution, air-borne pollutants J02 - Human induced changes in hydraulic conditions Positive Impacts <ul style="list-style-type: none"> B02 - orest and Plantation management & use 	<ul style="list-style-type: none"> P- Hydrological changes⁵⁰ P- Air Pollution: impact of atmospheric nitrogen deposition 	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; <ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats

⁴⁰ River Dee and Bala Lake/ Afon Dyfrdwy a Llyn Tegid SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030252.pdf> (Accessed 29/04/2024).

⁴³ River Dee and Bala Lake/ Afon Dyfrdwy a Llyn Tegid SAC Conservation Objectives. Available at: <http://publications.naturalengland.org.uk/publication/4660149109129216> (Accessed 29/04/2024).

⁴⁴ Rixton Clay Pits SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030265.pdf> (Accessed 29/04/2024).

⁴⁵ Rixton Clay Pits SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030265.pdf> (Accessed 29/04/2024).

⁴⁶ Rixton Clay Pits Site Imporvement Plan. Available at: <https://publications.naturalengland.org.uk/file/5216559110815744>(Accessed 29/04/2024).

⁴⁷ Rixton Clay Pits SAC Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/file/6277527941414912>(Accessed 29/04/2024).

⁴⁸ Manchester Mosses SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030200.pdf> (Accessed 29/04/2024).

⁴⁹ Manchester Mosses SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030200.pdf> (Accessed 29/04/2024).

⁵⁰ Manchester Mosses SAC Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/file/6266576827318272> (Accessed 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
				<ul style="list-style-type: none"> A04 - Grazing A02 - Modification of cultivation practices 		<ul style="list-style-type: none"> The structure and function (including typical species) of qualifying natural habitats, and, The supporting processes on which qualifying natural habitats rely.⁵¹
Dee Estuary/ Aber Dyfrdwy SAC	Inside the Site, towards the south-west border.	15805.27	<p>Annex I habitats that are a primary reason for selection of this site</p> <ul style="list-style-type: none"> 1140 Mudflats and sandflats not covered by seawater at low tide 310 Salicornia and other annuals colonizing mud and sand 1330 <i>Atlantic salt meadows (Glauco-Puccinellietalia maritimae)</i> <p>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site</p> <ul style="list-style-type: none"> 1130 Estuaries 1210 Annual vegetation of drift lines 1230 Vegetated sea cliffs of the Atlantic and Baltic Coasts 2110 Embryonic shifting dunes 2120 "Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")" 2130 "Fixed coastal dunes with herbaceous vegetation ("grey dunes")" * Priority feature 2190 Humid dune slacks <p>Annex II species present as a qualifying feature, but not a primary reason for site selection</p> <ul style="list-style-type: none"> 1095 Sea lamprey <i>Petromyzon marinus</i> 	<p>Negative Impacts⁵³</p> <ul style="list-style-type: none"> M02 - Changes in biotic conditions I01 - Problematic native species M01 - Changes in abiotic conditions G01 - Outdoor sports and leisure activities, recreational activities <p>Positive Impacts</p> <ul style="list-style-type: none"> A04 - Grazing D05 - Improved access to site A02 - Modification of cultivation practices G03 - Interpretative centres 	<ul style="list-style-type: none"> P/T- Public Access/Disturbance P- Changes in species distributions P/T- Invasive Species P/T- Climate change P/T- Coastal squeeze P- Inappropriate scrub control P/T- Water pollution P/T- Fisheries: Commercial marine and estuarine P/T- Inappropriate coastal management P/T- Overgrazing T- Direct impact from third party P/T- Marine Litter T- Predation T- Planning permission: general T- Marine consents and permits T- Wildfire/arson P- Air Pollution: impact of atmospheric nitrogen deposition T- Transportation and service corridors P/T- Physical modification⁵⁴ 	<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.⁵⁵

⁵¹ Manchester Mosses SAC Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/file/6584230239010816> (Accessed 29/04/2024).

⁵³ Dee Estuary/ Aber Dyfrdwy SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030131.pdf> (Accessed 29/04/2024).

⁵⁴ Dee Estuary/ Aber Dyfrdwy SAC Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/file/5140799320752128> (Accessed 29/04/2024).

⁵⁵ Dee Estuary/ Aber Dyfrdwy SAC Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/file/5834949009866752> (Accessed 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
			<ul style="list-style-type: none"> 1099 River lamprey <i>Lampetra fluviatilis</i> 1395 Petalwort <i>Petalophyllum ralfsii</i>⁵² 			
Sefton Coast SAC	Inside the Site boundary, towards the north-west border.	4591.59	<p>Annex I habitats that are a primary reason for selection of this site</p> <ul style="list-style-type: none"> 2110 Embryonic shifting dunes 2120 "Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")" 2130 "Fixed coastal dunes with herbaceous vegetation ("grey dunes")" * Priority feature 170 Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>) 2190 Humid dune slacks <p>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site</p> <ul style="list-style-type: none"> 2150 Atlantic decalcified fixed dunes (Calluno-Ulicetea) * Priority feature <p>Annex II species that are a primary reason for selection of this site</p> <ul style="list-style-type: none"> 1395 Petalwort <i>Petalophyllum ralfsii</i> <p>Annex II species present as a qualifying feature, but not a primary reason for site selection</p> <ul style="list-style-type: none"> 1166 Great crested newt <i>Triturus cristatus</i>⁵⁶ 	<p>Negative Impacts</p> <ul style="list-style-type: none"> I01 - Invasive non-native species H04 - Air pollution, air-borne pollutants J02 - Human induced changes in hydraulic conditions M01 - Changes in abiotic conditions K02 - Biocenotic evolution, succession <p>Positive Impacts</p> <ul style="list-style-type: none"> B02 - Forest and Plantation management & use A02 - Modification of cultivation practices A04 - Grazing A03 - Mowing / cutting of grassland D05 - Improved access to site⁵⁷ 	<ul style="list-style-type: none"> T- Coastal squeeze T- Air Pollution: risk of atmospheric nitrogen deposition P/T- Inappropriate scrub control T- Invasive species T- Hydrological changes T- Public Access/Disturbance P/T- inappropriate costal management P- Fisheries: commercial marine and estuarine P- Change to site conditions P- inappropriate costal management P- Shooting/scaring P/T- Invasive species P- Feature location/ extent/ Pressure condition unknown⁵⁸ 	<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.⁵⁹
Halkyn Mountain / Mynydd Helygain SAC	Approximately 7kms to the south-west of the Site.	604.33	<p>Annex I habitats that are a primary reason for selection of this site</p> <ul style="list-style-type: none"> 6130 Calaminarian grasslands of the <i>Violetalia calaminariae</i> <p>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site 4030 European dry heaths</p>	<p>Negative Impacts</p> <ul style="list-style-type: none"> H05 - Soil pollution and solid waste (excluding discharges) A04 - Grazing J02 - Human induced changes in hydraulic conditions 	N/A	N/A

⁵² Dee Estuary/ Aber Dyfrdwy SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030131.pdf> (Accessed 29/04/2024).

⁵⁶ Sefton Coast SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0013076.pdf> (Accessed 29/04/2024).

⁵⁷ Sefton Coast SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0013076.pdf> (Accessed 29/04/2024).

⁵⁸ Site Improvement Plan: Sefton Ribble. Available at: <https://publications.naturalengland.org.uk/file/6387486347493376>

⁵⁹ Sefton Coast SAC Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/file/5246658212528128> (Accessed 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
			<ul style="list-style-type: none"> 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) <p>Annex I habitats that are a primary reason for selection of this site</p> <ul style="list-style-type: none"> 6130 Calaminarian grasslands of the <i>Violetalia calaminariae</i>⁶⁰ 	<ul style="list-style-type: none"> G01 - Outdoor sports and leisure activities, recreational activities F03 - Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.) C01 - Mining and quarrying J01 - Fire and fire suppression H04 - Air pollution, air-borne pollutants I02 - Problematic native species D02 - Utility and service lines I01 - Fire and fire suppression K02 - Biocenotic evolution, succession <p>Positive Impacts</p> <ul style="list-style-type: none"> A04 - Grazing⁶¹ 		
Deeside and Buckley Newt Sites SAC	Approximately 9kms to the south of the Site.	206.19	<p>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site</p> <ul style="list-style-type: none"> 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles <p>Annex II species that are a primary reason for selection of this site</p> <ul style="list-style-type: none"> 1166 Great crested newt <i>Triturus cristatus</i>⁶² 	<p>Negative Impacts</p> <ul style="list-style-type: none"> A03 - Mowing / cutting of grassland H05 - Soil pollution and solid waste (excluding discharges) J03 - Other ecosystem modifications K02 - Biocenotic evolution, succession I01 - Fire and fire suppression A04 - Grazing I02 - Problematic native species B07 - Forestry activities not referred to above H04 - Air pollution, air-borne pollutants <p>Positive impacts</p> <ul style="list-style-type: none"> G01 - Outdoor sports and leisure activities, recreational activities⁶³ 	N/A	N/A

⁶⁰ Halkyn Mountain / Mynydd Helygain SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030163.pdf> (Accessed 29/04/2024).

⁶¹ Halkyn Mountain / Mynydd Helygain SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030163.pdf> (Accessed 29/04/2024).

⁶² Deeside and Buckley Newt Sites SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030132.pdf> (Accessed 29/04/2024).

⁶³ Deeside and Buckley Newt Sites SAC Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030132.pdf> (Accessed 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
Martin Mere SPA	Approximately 5kms to the east of the Site.	119.75	Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation: <ul style="list-style-type: none"> Northern pintail <i>Anas acuta</i> Whooper swan <i>Cygnus cygnus</i> Pink-footed goose <i>Anser brachyrhynchus</i> Bewick swan <i>Cygnus columbianus bewickii</i> Eurasian teal <i>Anas crecca</i>⁶⁴ 	<ul style="list-style-type: none"> Negative Impacts I01 - Fire and fire suppression H02 - Pollution to groundwater (point sources and diffuse sources) J02 - Human induced changes in hydraulic conditions Positive Impacts A02 - Modification of cultivation practices A04 - Grazing⁶⁵ 	<ul style="list-style-type: none"> T- Hydrological changes T - Invasive species T- Water Pollution⁶⁶ 	<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.⁶⁷
Mersey Narrows and North Wirral Foreshore SPA	Inside the Site boundary, towards the west.	2078.36	<p>The site qualifies under article 4.1 of the Directive (2009/147/EC) as it is used regularly by 1% or more of the Great Britain populations of the following species listed in Annex I in any season:</p> <ul style="list-style-type: none"> Bar-tailed Godwit <i>Limosa lapponica</i> Common Tern <i>Sterna hirundo</i> Little Gull <i>Hydrocoloeus minutus</i> Common Tern <i>Sterna hirundo</i> <p>The site qualifies under article 4.2 of the Directive (2009/147/EC) as it is used regularly by 1% or more of the biogeographical populations of the following regularly occurring migratory species (other than those listed in Annex I) in any season:</p> <ul style="list-style-type: none"> Knot <i>Calidris canutus islandica</i>⁶⁸ 	<ul style="list-style-type: none"> Negative Impacts G01 - Outdoor sports and leisure activities, recreational activities I01 - Invasive non-native species M01 - Changes in abiotic conditions M02 - Changes in biotic conditions⁶⁹ 	<ul style="list-style-type: none"> P/T- Public Access/Disturbance P- Changes in species distributions P/T- Invasive Species P/T- Climate change P/T- Costal squeeze P- Inappropriate scrub control P/T- Water pollution P/T- Fisheries: Commercial marine and estuarine P/T- Inappropriate coastal management P/T- Overgrazing T- Direct impact from third party P/T- Marine Litter T- Predation 	<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.⁷¹

⁶⁴ Martin Mere SPA Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9005111.pdf> (Accessed 29/04/2024).

⁶⁵ Martin Mere SPA Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9005111.pdf> (Accessed 29/04/2024).

⁶⁶ Martin Mere SPA Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/file/6280619046731776> (Accessed 29/04/2024).

⁶⁷ Martin Mere SPA Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/file/4604885249294336> (Accessed 29/04/2024).

⁶⁸ Mersey Narrows and North Wirral Foreshore SPA Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9020287.pdf> (Accessed 29/04/2024).

⁶⁹ Mersey Narrows and North Wirral Foreshore SPA Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9020287.pdf> (Accessed 29/04/2024).

⁷¹ Mersey Narrows and North Wirral Foreshore SPA Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/file/4650102664986624> (Accessed 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ⁷³	Conservation Objectives
					<ul style="list-style-type: none"> T- Planning permission: general T- Marine consents and permits T- Wildfire/arson P- Air Pollution: impact of atmospheric nitrogen deposition T- Transportation and service corridors P/T- Physical modification⁷⁰ 	
The Dee Estuary SPA	Inside the Site boundary, towards the south.	14294.95	Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC: <ul style="list-style-type: none"> Common shelduck <i>Tadorna tadorna</i> (Non-breeding) Eurasian teal <i>Anas crecca</i> (Non-breeding) Northern pintail <i>Anas acuta</i> (Non-breeding) Eurasian oystercatcher <i>Haematopus ostralegus</i> (Non-breeding) Grey plover <i>Pluvialis squatarola</i> (Non-breeding) Red knot <i>Calidris canutus</i> (Non-breeding) Dunlin <i>Calidris alpina alpina</i> (Non-breeding) Black-tailed godwit <i>Limosa limosa islandica</i> (Non-breeding) Bar-tailed godwit <i>Limosa lapponica</i> (Non-breeding) Eurasian curlew <i>Numenius arquata</i> (Non-breeding) Common redshank <i>Tringa totanus</i> (Non-breeding) Sandwich tern <i>Sterna sandvicensis</i> (Non-breeding) Common tern <i>Sterna hirundo</i> (Breeding) Little tern <i>Sterna albifrons</i> (Breeding)⁷² 	Negative Impacts ⁷³ <ul style="list-style-type: none"> M02 - Changes in biotic conditions I01 - Problematic native species M01 - Changes in abiotic conditions G01 - Outdoor sports and leisure activities, recreational activities Positive Impacts <ul style="list-style-type: none"> A04 - Grazing D05 - Improved access to site A02 - Modification of cultivation practices G03 - Interpretative centres 	<ul style="list-style-type: none"> P/T- Public Access/Disturbance P- Changes in species distributions P/T- Invasive Species P/T- Climate change P/T- Coastal squeeze P- Inappropriate scrub control P/T- Water pollution P/T- Fisheries: Commercial marine and estuarine P/T- Inappropriate coastal management P/T- Overgrazing T- Direct impact from third party P/T- Marine Litter T- Predation T- Planning permission: general T- Marine consents and permits T- Wildfire/arson P- Air Pollution: impact of atmospheric nitrogen deposition T- Transportation and service corridors 	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; <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.⁷⁵

⁷⁰ Dee Estuary/ Aber Dyfrdwy SAC Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/file/5140799320752128> (Accessed 29/04/2024).

⁷² Dee Estuary/ Aber Dyfrdwy SPA Natura 2000 Form. Available at: <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9013011.pdf> (Accessed 29/04/2024).

⁷³ Dee Estuary/ Aber Dyfrdwy SPA Natura 2000 form. Available at: <https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030131.pdf> (Accessed 29/04/2024).

⁷⁵ Dee Estuary SPA Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/file/5008539580104704> (Accessed 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
					<ul style="list-style-type: none"> P/T- Physical modification⁷⁴ 	
Mersey Estuary SPA	Inside the Site boundary, towards the east.	5023.35	Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC: <ul style="list-style-type: none"> Common shelduck <i>Tadorna tadorna</i> (Non-breeding) Eurasian teal <i>Anas crecca</i> (Non-breeding) Northern pintail <i>Anas acuta</i> (Non-breeding) European golden plover <i>Pluvialis apricaria</i> (Non-breeding) Dunlin <i>Calidris alpina alpina</i> (Non-breeding) Black-tailed godwit <i>Limosa limosa islandica</i> (Non-breeding) Common redshank <i>Tringa totanus</i> (Non-breeding)⁷⁶ 	<ul style="list-style-type: none"> Positive Impacts G01 - Outdoor sports and leisure activities, recreational M02 - Changes in biotic conditions I01 - Problematic native species Negative Impacts A04 - Grazing D05 - Improved access to site A02 - Modification of cultivation practices⁷⁷ 	<ul style="list-style-type: none"> P- Changes in species distributions P/T- Invasive species P- Public access/disturbance⁷⁸ 	<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.⁷⁹
Ribble and Alt Estuaries SPA	Inside the Site boundary, towards the north-west.	12449.92	Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC: <ul style="list-style-type: none"> Bewick's swan <i>Cygnus columbianus bewickii</i> (Non-breeding) Whooper swan <i>Cygnus cygnus</i> (Non-breeding) Pink-footed goose <i>Anser brachyrhynchus</i> (Non-breeding) Common shelduck <i>Tadorna tadorna</i> (Non-breeding) Eurasian wigeon <i>Anas penelope</i> (Non-breeding) Eurasian teal <i>Anas crecca</i> (Non-breeding) Northern pintail <i>Anas acuta</i> (Non-breeding) Eurasian oystercatcher <i>Haematopus ostralegus</i> (Non-breeding) Ringed plover <i>Charadrius hiaticula</i> (Non-breeding) 	<ul style="list-style-type: none"> Positive Impacts H04 - Air pollution, air-borne pollutants I01 - Problematic native species K02 - Biocenotic evolution, succession J02 - Human induced changes in hydraulic conditions M01 - Changes in abiotic conditions Negative Impacts A04 - Grazing D05 - Improved access to site A02 - Modification of cultivation practices⁸¹ 	<ul style="list-style-type: none"> T- Costal squeeze T- Air Pollution: risk of atmospheric nitrogen deposition P/T- Inappropriate scrub control T- Invasive species T- Hydrological changes T- Public access/disturbance P/T- Inappropriate costal management P- Fisheries: commercial marine and estuarine P- Change to site conditions P- inappropriate costal management P- Shooting/scaring P/T- Invasive species 	<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.⁸³

⁷⁴ Dee Estuary/ Aber Dyfrdwy SPA Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/file/5140799320752128> (Accessed 29/04/2024).

⁷⁶ Mersey Estuary SPA Natura 2000 Form. Available at: <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9005131.pdf> (Accessed 29/04/2024).

⁷⁷ Mersey Estuary SPA Natura 2000 Form. Available at: <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9005131.pdf> (Accessed 29/04/2024).

⁷⁸ Mersey Estuary SPA Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/file/6470778514046976> (Accessed 29/04/2024).

⁷⁹ Mersey Estuary SPA Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/file/5759726675820544> (Accessed 29/04/2024).

⁸¹ Ribble and Alt Estuaries SPA Natura 2000 Form. Available at: <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9005103.pdf> (Accessed 29/04/2024).

⁸³ Ribble and Alt Estuaries SPA Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/file/5617578676584448> (Accessed 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
			<ul style="list-style-type: none"> European golden plover <i>Pluvialis apricaria</i> (Non-breeding) Grey plover <i>Pluvialis squatarola</i> (Non-breeding) Red knot <i>Calidris canutus</i> (Non-breeding) Sanderling <i>Calidris alba</i> (Non-breeding) Dunlin <i>Calidris alpina alpina</i> (Non-breeding) Ruff <i>Philomachus pugnax</i> (Breeding) Black-tailed godwit <i>Limosa limosa islandica</i> (Non-breeding) Bar-tailed godwit <i>Limosa lapponica</i> (Non-breeding) Common redshank <i>Tringa totanus</i> (Non-breeding) Lesser black-backed gull <i>Larus fuscus</i> (Breeding) Common tern <i>Sterna hirundo</i> (Breeding)⁸⁰ 		<ul style="list-style-type: none"> P- Feature location/ extent/ Pressure condition unknown⁸² 	
Liverpool Bay / Bae Lerpwl SPA	Adjacent to the Site, to the west.	252757.73	Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC: <ul style="list-style-type: none"> Gavia stellata Red-throated diver (Non-breeding) Common scoter <i>Melanitta nigra</i> (Non-breeding) Little gull <i>Hydrocoloeus minutus</i> (Non-breeding) Common tern <i>Sterna hirundo</i> (Breeding) Little tern <i>Sternula albifrons</i> (Breeding)⁸⁴ 	<ul style="list-style-type: none"> Negative Impacts H01- Pollution to surface waters (limnic & terrestrial, marine & brackish) G01 - Outdoor sports and leisure activities, recreational I01 - Problematic native species J02- Human induced changes in hydraulic conditions C01- Mining and quarrying C02 - Exploration and extraction of oil or gas D03- Shipping lanes, ports, marine constructions D04- Airports, flightpaths D02- Utility and service lines H03- Marine water pollution D01- Roads, paths and railroads F02- Fishing and harvesting aquatic resources C03- Renewable abiotic energy use Positive Impacts D05 - Improved access to site 	<ul style="list-style-type: none"> P- Fisheries: Commercial marine and estuarine T- Transportation and service corridors T- Fisheries: recreational marine and estuarine T- Extraction: non-living resources T- Siltation T- Water pollution⁸⁶ 	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; <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.⁸⁷

⁸⁰ Ribble and Alt Estuaries SPA Natura 2000 Form. Available at: <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9005103.pdf> (Accessed 29/04/2024).

⁸² Ribble and Alt Estuaries SPA Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/file/6387486347493376> (Accessed 29/04/2024).

⁸⁴ Liverpool Bay / Bae Lerpwl SPA Natura 2000 Form. Available at: <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9020294.pdf> (Accessed 29/04/2024).

⁸⁶ Liverpool Bay / Bae Lerpwl SPA Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/file/5321001921413120> (Accessed 29/04/2024).

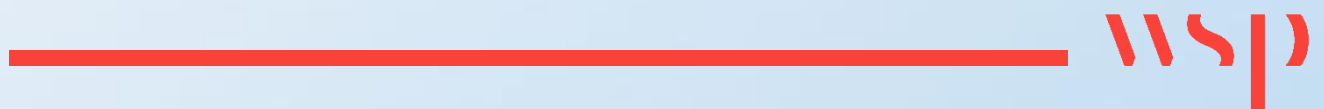
⁸⁷ Liverpool Bay / Bae Lerpwl SPA Conservation Objectives. Available at <https://publications.naturalengland.org.uk/file/6428729689767936> (Accessed 29/04/2024).

Site Name	Distance	Site Size (Ha)	Summary of reasons for designation summarised on Natura 2000 Standard Data Form or Ramsar Information Sheet	Activities with greatest effect upon the site, as listed on Natura 2000 standard data forms and Information Sheets for Ramsar Wetlands	Pressures and threats listed within the Site Improvement Plan (NE, undated) (T=Threat, P=Pressure) ²³	Conservation Objectives
				<ul style="list-style-type: none">G03- Interpretative centres⁸⁵		

⁸⁵ Liverpool Bay / Bae Lerpwl SPA Natura 2000 Form. Available at: <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9020294.pdf> (Accessed 29/04/2024).

Appendix C

**APIS INFORMATION FOR SPA AND
SAC SITES WHERE AIR POLLUTION
IS LISTED AS A PRESSURE OR
THREAT**



The following table summarises the APIS information for the SAC and SPA sites where air pollution is listed as a pressure or threat. In relation to the SPAs, species designated features are taken into account by considering the habitat upon which they are reliant. Data is not presented for the individual species themselves.

With regards to NH₃, where APIS provides a range of 1µg/m³ or 3µg/m³ for the Critical Level, a precautionary approach has been adopted and only the lower Critical Level is reported.

Table C-1 - APIS Information

Designated Site	Habitat / Species	Relevant CL Habitat	EUNIS Code	CL Range (kg N/ha/yr)	Recommended Assessment CL	Max NDep (kgN/ha/yr) Value	Ammonia CL	Max NH ₃ Concentration (µg/m ³)
West Midlands Mosses SAC	Natural dystrophic lakes and ponds	Permanent dystrophic lakes, ponds and pools	C1.4	5-10	5	27.6	1	3.85
	Transition mires and quaking bogs	Valley mires, poor fens and transition mires	Q2	5-15	5	27.6	1	3.85
	Bog woodland	Raised and blanket bogs	Q1	5-10	5	48.3	1	3.85
Manchester Mosses SAC	Degraded raised bogs still capable of natural regeneration	Raised and blanket bogs	Q1	5-10	5	20.3	1	2.21
Dee Estuary/ Aber Dyfrdwy SAC	Annual vegetation of drift lines	Designated feature/feature habitat not sensitive to eutrophication	-	No CL assigned	Site Specific	19.8	Not defined	2.3

Designated Site	Habitat / Species	Relevant CL Habitat	EUNIS Code	CL Range (kg N/ha/yr)	Recommended Assessment CL	Max NDep (kgN/ha/yr) Value	Ammonia CL	Max NH ₃ Concentration (µg/m ³)
	Atlantic salt meadows (Glaucopuccinellietalia maritimae)	Atlantic upper-mid & mid-low salt marshes	MA223; MA224	10-20	10	19.8	1	2.3
	Coastal lagoons	Atlantic upper-mid & mid-low salt marshes	MA223; MA224	10-20	10	19.8	1	2.3
	Embryonic shifting dunes	Shifting coastal dunes	N13;N14	10-20	10	19.8	1	2.3
	Estuaries	Atlantic upper-mid & mid-low salt marshes	MA223; MA224	10-20	10	19.8	1	2.3
	European dry heaths	Dry heaths	S42	5-15	5	19.8	1	2.3
	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	Coastal dune grasslands (grey dunes) - acid type	N15 - acid	5-10	5	19.8	1	2.3
		Coastal dune grasslands (grey dunes) - calcareous type	N15 - calcareous	10-15	10	19.8	1	2.3
	Humid dune slacks	Moist and wet dune slacks - acid type	NH1 acid	5-10	5	19.8	1	2.3

Designated Site	Habitat / Species	Relevant CL Habitat	EUNIS Code	CL Range (kg N/ha/yr)	Recommended Assessment CL	Max NDep (kgN/ha/yr) Value	Ammonia CL	Max NH ₃ Concentration (µg/m ³)
	Humid dune slacks	Moist and wet dune slacks - calcareous type	N1H - calcareous	10-15	10	19.8	1	2.3
	Mudflats and sandflats not covered by seawater at low tide	No comparable habitat with established critical load estimate available	-	No CL assigned	Site Specific	19.8	1	2.3
	Salicornia and other annuals colonizing mud and sand	Atlantic pioneer salt marshes	MA225	20-30	20	19.8	1	2.3
	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")	Shifting coastal dunes	N13;N14	10-20	10	19.8	1	2.3
	<i>Spartina</i> swards (<i>Spartinion maritimae</i>)	Atlantic upper-mid & mid-low salt marshes	MA223; MA224	10-20	10	19.8	1	2.3
	Vegetated sea cliffs of the Atlantic and Baltic Coasts	No comparable habitat with established critical load estimate available	-	No CL assigned	Site Specific	19.8	1	2.3

Designated Site	Habitat / Species	Relevant CL Habitat	EUNIS Code	CL Range (kg N/ha/yr)	Recommended Assessment CL	Max NDep (kgN/ha/yr) Value	Ammonia CL	Max NH ₃ Concentration (µg/m ³)
	Petalophyllum ralfsii	Moist and wet dune slacks	N1H	5-15	5	19.8	1	2.3
Sefton Coast SAC	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	Coastal dune heaths	N18; N19	10-15	10	16.7	1	1.5
	Dunes with Hippophae rhamnoides	No comparable habitat with established critical load estimate available	-	No CL assigned	Site Specific	16.7	1	1.5
	Dunes with Salix repens ssp argentea (Salicion arenariae)	Moist and wet dune slacks	N1H	5-15	5	16.7	1	1.5
	Embryonic shifting dunes	Shifting coastal dunes	N13; N14	10-20	10	16.7	1	1.5
	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	Coastal dune grasslands (grey dunes) - calcareous type	N15 - calcareous	10-15	10	16.7	1	1.5
	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	Coastal dune grasslands (grey dunes) - acid type	N15 - acid	5-10	5	16.7	1	1.5

Designated Site	Habitat / Species	Relevant CL Habitat	EUNIS Code	CL Range (kg N/ha/yr)	Recommended Assessment CL	Max NDep (kgN/ha/yr) Value	Ammonia CL	Max NH ₃ Concentration (µg/m ³)
	Humid dune slacks	Moist and wet dune slacks - acid type	N1H - acid	5-10	5	16.7	1	1.5
		Moist and wet dune slacks - calcareous type	N1H - calcareous	10-15	10	16.7	1	1.5
	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")	Shifting coastal dunes	N13;N14	10-20	10	16.7	1	1.5
	<i>Petalophyllum ralfsii</i>	Moist and wet dune slacks	N1H	5-15	5	16.7	1	1.5
Mersey Narrows & North Wirral Foreshore SPA	<i>Calidris alba</i> (Eastern Atlantic/Western & Southern Africa - wintering) <i>Haematopus ostralegus</i> (Europe & Northern/Western Africa) <i>Hydrocoloeus minutus</i> <i>Limosa lapponica</i> (Western Palearctic - wintering) <i>Pluvialis squatarola</i> (Eastern Atlantic - wintering)	Atlantic upper-mid & mid-low salt marshes	MA223; MA224	10-20	10	17.9	n/a	1.8

Designated Site	Habitat / Species	Relevant CL Habitat	EUNIS Code	CL Range (kg N/ha/yr)	Recommended Assessment CL	Max NDep (kgN/ha/yr) Value	Ammonia CL	Max NH ₃ Concentration (µg/m ³)
	Sterna hirundo (Northern/Eastern Europe - breeding) Tringa totanus (Eastern Atlantic - wintering)							
	Sterna hirundo (Northern/Eastern Europe - breeding)	Shifting coastal dunes	N13;N14	10-20	10	17.9	n/a	1.8
		Coastal dune grasslands (grey dunes) - acid type	N15 - acid	5-10	5	17.9	n/a	1.8
		Coastal dune grasslands (grey dunes) - calcareous type	N15 - calcareous	10-15	10	17.9	n/a	1.8

Designated Site	Habitat / Species	Relevant CL Habitat	EUNIS Code	CL Range (kg N/ha/yr)	Recommended Assessment CL	Max NDep (kgN/ha/yr) Value	Ammonia CL	Max NH ₃ Concentration (µg/m ³)
The Dee Estuary SPA	Anas acuta (North-western Europe) Anas crecca (North-western Europe) Calidris canutus (North-eastern Canada/ Greenland/Iceland/North-western Europe) Haematopus ostralegus (Europe & Northern/ Western Africa) Limosa lapponica (Western Palearctic - wintering) Limosa limosa islandica (Iceland - breeding) Pluvialis squatarola (Eastern Atlantic - wintering) Tadorna tadorna (North-western Europe) Tringa totanus (Eastern Atlantic - wintering)	Atlantic upper-mid & mid-low salt marshes	MA223; MA224	10-20	10	19.8	n/a	2.3
	Numenius arquata (Europe - breeding)	Low and medium altitude hay meadows	R22	10-20	10	19.8	n/a	2.3

Designated Site	Habitat / Species	Relevant CL Habitat	EUNIS Code	CL Range (kg N/ha/yr)	Recommended Assessment CL	Max NDep (kgN/ha/yr) Value	Ammonia CL	Max NH ₃ Concentration (µg/m ³)
		Numenius arquata (Europe - breeding)	MA223; MA224	10-20	10	19.8	n/a	2.3
	Sterna albifrons (Eastern Atlantic - breeding)	Coastal dune grasslands (grey dunes) - acid type	N15 - acid	5-10	5	19.8	n/a	2.3
	Sterna hirundo (Northern/Eastern Europe - breeding)	Coastal dune grasslands (grey dunes) - calcareous type	N15 - calcareous	10-15	10	19.8	n/a	2.3
	Sterna sandvicensis (Western Europe/Western Africa)	Shifting coastal dunes	N13; N14	10-20	10	19.8	n/a	2.3
Ribble & Alt Estuaries SPA	Anas acuta (North-western Europe) Anas crecca (North-western Europe) Anas penelope (Western Siberia/North-western/North-eastern Europe) Anser brachyrhynchus (Eastern Greenland/Iceland/UK) Calidris alba (Eastern Atlantic/Western &	Atlantic upper-mid & mid-low salt marshes	MA223; MA224	10-20	10	20.0	n/a	2.7

Designated Site	Habitat / Species	Relevant CL Habitat	EUNIS Code	CL Range (kg N/ha/yr)	Recommended Assessment CL	Max NDep (kgN/ha/yr) Value	Ammonia CL	Max NH ₃ Concentration (µg/m ³)
	Southern Africa - wintering) Calidris canutus (North-eastern Canada/Greenland/Iceland/North-western Europe) Charadrius hiaticula (Europe/Northern Africa - wintering) Haematopus ostralegus (Europe & Northern/Western Africa) Limosa lapponica (Western Palearctic - wintering) Limosa limosa islandica (Iceland - breeding) Numenius arquata (Europe - breeding) Numenius phaeopus (Europe/Western Africa) Philomachus pugnax (Western Africa - wintering) Pluvialis apricaria [North-western Europe] Pluvialis squatarola (Eastern Atlantic - wintering) Tadorna tadorna (North-western Europe)							

Designated Site	Habitat / Species	Relevant CL Habitat	EUNIS Code	CL Range (kg N/ha/yr)	Recommended Assessment CL	Max NDep (kgN/ha/yr) Value	Ammonia CL	Max NH ₃ Concentration (µg/m ³)
	Tringa totanus (Eastern Atlantic - wintering) Vanellus vanellus (Europe - breeding)							
	Larus ridibundus (North-western Europe - breeding)	Raised and blanket bogs	Q1	5-10	5	20.0	n/a	2.7
	Larus ridibundus (North-western Europe - breeding) Sterna hirundo (Northern/Eastern Europe - breeding)	Coastal dune grasslands (grey dunes) - acid type	N15 - acid	5-10	5	20.0	n/a	2.7
		Coastal dune grasslands (grey dunes) - calcareous type	N15 - calcareous	10-15	10	20.0	n/a	2.7
	Numenius arquata (Europe - breeding) Philomachus pugnax (Western Africa - wintering) Pluvialis apricaria [North-western Europe]	Low and medium altitude hay meadows	R22	10-20	10	20.0	n/a	2.7



Designated Site	Habitat / Species	Relevant CL Habitat	EUNIS Code	CL Range (kg N/ha/yr)	Recommended Assessment CL	Max NDep (kgN/ha/yr) Value	Ammonia CL	Max NH ₃ Concentration (µg/m ³)
	Sterna hirundo (Northern/Eastern Europe - breeding)	Shifting coastal dunes	N13; N14	10-20	10	20.0	n/a	2.7



1st Floor Station House
Tithebarn Street, Exchange Station
Liverpool
L2 2QP

wsp.com