

Habitats Regulations Assessment

24/00445/FUL

**Foxhill House Foxhill Lane, Halewood,
Knowsley, L26 4XG**

Report for Knowsley Borough Council

Document Control

Project: Erection of a single story rear extension (demolition of outrigger extension. Foxhill House, Foxhill Lane, Halewood, Knowsley, L26 4XG.

Prepared for: Knowsley Borough Council

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Contents

Summary	1
Conclusions	4
Stage 1: Assessment of likely significant effects	5
Site Location and Description	5
Brief Description of the international and national sites	5
Data sources used to inform assessment	7
Summary of survey findings	8
Assessment of likely significant effects – Source-Pathway-Receptor model	9
In-combination effects	11
Assessment of significance of effects	11
Conclusion of Test of Likely Significant Effects	12
Appropriate Assessment	13
Integrity Test	15

Summary

1. This document sets out Knowsley Borough Council's assessment of likely significant effects of the proposed project in accordance with the Habitats Regulations². It is the Habitats Regulations Assessment (HRA) report for this planning application, and it has been prepared for Knowsley Borough Council by Merseyside Environmental Advisory Service.

Approach

2. Our approach to HRA follows European Commission guidance³ and has been informed by best practice, including The Habitats Regulations Assessment Handbook⁴ and Government guidance⁵.
3. HRA is an assessment of the potential effects of a proposed project or plan - either a Local Plan or a Supplementary Planning Document (SPD) - for example - on one or more sites of international nature conservation importance. Projects and plans can only be permitted where the 'competent authority' (in this case Knowsley Borough Council) is satisfied that there will be no adverse effects on integrity of the relevant national and international sites.
4. From 1 January 2021, the UK is no longer a member of the European Union. However, HRA will continue as set out in the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Following the end of the Brexit transition period, these sites of international nature conservation importance are known as the **national site network** (they were previously referred to as Natura 2000 sites). Sites within the national network are of exceptional importance in respect of rare, endangered or vulnerable natural habitats and species and include Special Protection Areas (SPAs) and Special Areas of Conservation (SACs).
5. The National Planning Policy Framework (NPPF) (paragraph 181) states that Ramsar sites should be taken to be part of the national site network and treated accordingly. Ramsar sites are wetlands of international importance designated under the International Wetlands Convention, which took place at Ramsar, Iran. NPPF also states that proposed sites should be treated in the same way as designated sites for all practical purposes, including for HRA. We have followed this Government guidance and have used the term 'national and international sites' to refer to all these designations and proposed designations.
6. The 'Precautionary Principle' should be applied at each stage of the HRA process. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the national and international site(s) in question. Plans and projects with predicted adverse impacts on national and international sites may still be permitted if there are no alternatives to them and there are Imperative Reasons

² The Conservation of Habitats and Species Regulations, 2010 (SI 2010 No. 490) and amendments in 2011 (SI 2011 No. 625), 2012 (SI 2012 No. 1927), 2017 (SI 2017 No. 1012) and 2019 (SI 2019 No. 579).

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

⁴ DTA Publications Ltd (2021). *The Habitats Regulations Assessment Handbook*. <https://www.dtapublications.co.uk/>

⁵ DEFRA, Natural England, Welsh Government and Natural Resource Wales (2021). *Habitats Regulations Assessments: Protecting a European Site* <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site#screening>

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

7. Stage 1 of the HRA process is the assessment of proposed plans and projects for likely significant effects (Screening). If there are none, then no further steps need to be taken. Where significant effects seem likely, a more detailed Appropriate Assessment and Integrity Test of the proposed plan or project is necessary. This is known as Stage 2.
8. The 'integrity' of a national and international site is defined as:
'the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified or listed.'
9. The European Commission defined integrity more recently as follows:
'the integrity of the site involves its constitutive characteristics and ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the habitats and species for which the site has been designated and the site's conservation objectives.'
10. Stage 2 will often establish mitigation measures or alternative methods, which can offset all significant adverse effects and enable the plan or project to go forward. This is necessary to conclude beyond reasonable scientific doubt that adverse effects on the integrity of national and international sites has been avoided. Where this is not the case, other more stringent measures need to be considered.
11. Plans and projects with predicted adverse impacts on international sites may still be permitted if there are no alternatives to them (Stage 3) and there are Imperative Reasons of Overriding Public Interest (IROPI) (Stage 4) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.

12. The source-pathway-receptor model is used to assess individual elements of the project likely to give rise to effects on the national sites network and Ramsar sites. In using this method all potential effects are assessed to determine whether there is a pathway which could lead to an effect on the national and international sites. If there is a source-pathway-receptor link for any potential impact, then this effect is assessed for likely significant effects within the HRA. Where no source or pathway is present then these effects are screened out at Stage 1. All potential effects, no matter how small are identified and assessed for their level of significance. Even if the potential effects are small and thought likely to be insignificant, they must be assessed to confirm this is the case. Figure 1 below shows how the model works.

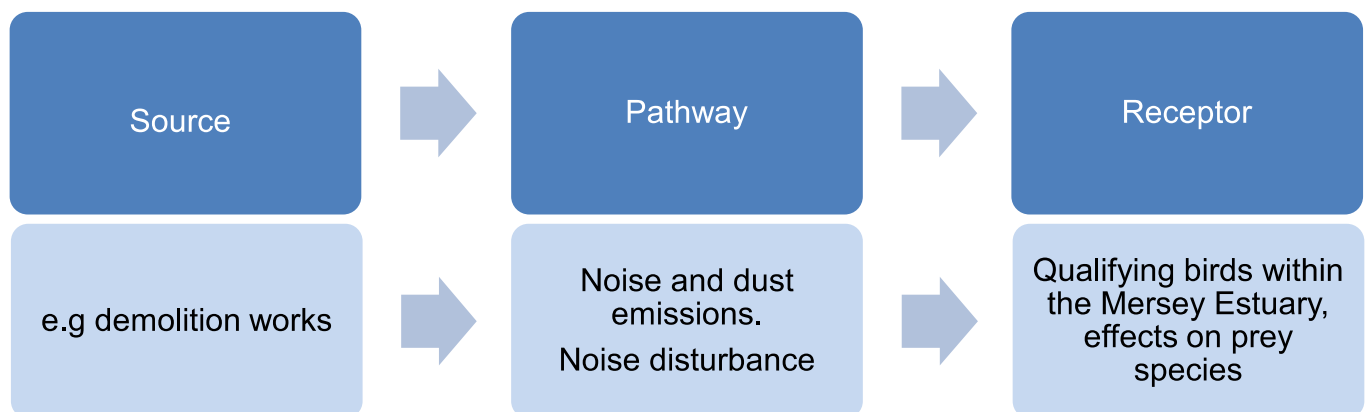


Figure 1 – Source-Pathway-Receptor Model

13. Natural England's standing advice is that when a finding of no significant effect is reached, consultation is not required. However, Natural England will be consulted on this HRA before planning permission can be granted as Appropriate Assessment is required.

Case law

14. A 2018 ECJ judgement, known as *People Over Wind or Sweetman v Coillte Teoranta*⁶ ruled that avoidance and mitigation measures included within the proposals solely to avoid or reduce harmful effects on a European site cannot be considered at the Assessment of Likely Significant Effects (ALSE) stage. These measures should instead be assessed within the framework of an Appropriate Assessment. This requires a distinction during the ALSE between essential features and characteristics of a project (e.g. its nature, scale, design, location, frequency, timing and duration) and avoidance and mitigation measures designed solely to avoid or reduce adverse effects on a European site. In accordance with the Sweetman judgement, this HRA only considers mitigation measures which embedded within the scheme during the ALSE.
15. In 2018 the Holohan ruling⁷ handed down by the European Court of Justice included among other provisions paragraph 39 of the ruling stating that '*As regards other habitat types or species, which are present on the site, but for which that site has not been listed, and with respect to habitat types and species located outside that site, ... typical habitats or species must be included in the appropriate assessment, if they are necessary to the conservation of the habitat types and species listed for the protected area*' [emphasis added].

⁶ People Over Wind and Sweetman v Coillte Teoranta (C-323/17)

⁷ Case C-461/17

Summary & Recommendations

16. The following matters must be secured by appropriately worded planning conditions:

- Acoustic fencing/hoarding is to be erected along the rear of the application site boundary for the duration of the demolition and construction period of works that will take place between 1 September and 31 March. . Details of the acoustic fencing/hoarding are required to be submitted for approval prior to the start of any demolition or construction works to be carried out between 1 September and 31 March.

Conclusions

17. After carrying out the Habitats Regulations Assessment, and provided the above planning conditions are applied, we conclude that Planning Application (24/00445/FUL):

- a. is not directly connected with or necessary to the management of the international and national sites.
- b. does not intrude into the national or international sites listed below.
- c. is not considered, either alone or in-combination with any other plans or projects, to have an adverse effect upon the integrity of the following international and national sites:

- Ribble and Alt Estuaries SPA;
- Ribble and Alt Estuaries Ramsar site;
- Mersey Narrows and North Wirral Foreshore SPA;
- Mersey Narrows and North Wirral Foreshore Ramsar site;
- Mersey Estuary SPA;
- Mersey Estuary Ramsar site;
- Martin Mere SPA; and
- Martin Mere Ramsar site.

18. This Habitats Regulations Assessment report has assessed the project as submitted for planning permission. If there are changes to the project e.g. type of build, location, timing, that may affect the conclusions, then the project will require further assessment. This is part of the iterative process of undertaking Habitats Regulations Assessment.

Stage 1: Assessment of likely significant effects

Site Location and Description

19. The project is located at Easting 344729353416 and Northing 386809 is approximately 4.67km from Mersey Estuary SPA and Ramsar sites (the closest national and internationally designated sites) and is adjacent to habitats which are functionally linked to national and international sites.
20. The application proposes the construction of a single-story extension to the rear of the property after the demolition of the small single story outrigger extension.

Brief Description of the national and international sites

21. The development is adjacent to land that may be functionally linked to the following international and national sites:
 - Ribble and Alt Estuaries SPA;
 - Ribble and Alt Estuaries Ramsar site;
 - Mersey Narrows and North Wirral Foreshore SPA;
 - Mersey Narrows and North Wirral Foreshore Ramsar site;
 - Mersey Estuary SPA;
 - Mersey Estuary Ramsar site;
 - Martin Mere SPA; and
 - Martin Mere Ramsar site.

Ribble and Alt Estuaries SPA and Ramsar

22. The Ribble and Alt Estuaries SPA and Ramsar are located on the northwest coast of England at the mouth of the Mersey site is approximately 12,360ha, and consists of extensive sand-and mud-flats and, particularly in the Ribble Estuary, large areas of saltmarsh. There are also areas of coastal grazing marsh located behind the sea embankments. The saltmarshes, coastal grazing marshes intertidal sand- and mud-flats all support high densities of grazing wildfowl and are used as high-tide roosts. Important populations of waterbirds occur in winter, including swans, geese, ducks and waders. The highest densities of feeding birds are on the muddier substrates of the Ribble.
23. The SPA is also of major importance during the spring and autumn migration periods, especially for wader populations moving along the west coast of Britain. The larger expanses of saltmarsh and areas of coastal grazing marsh support breeding birds during the summer, including large concentrations of gulls and terns. These seabirds feed both offshore and inland, outside of the SPA. Several species of waterbird (notably pink-footed goose, whooper swan, lapwing, and golden plover) utilise feeding areas on agricultural land outside of the SPA boundary. There is considerable interchange in the movements of wintering birds between this site and Morecambe Bay, the Mersey Estuary, the Dee Estuary and Martin Mere.

Mersey Narrows and North Wirral Foreshore SPA

24. Mersey Narrows and North Wirral Foreshore is located on the northwest coast of England at the mouths of the Mersey and Dee estuaries. The site comprises intertidal habitats at Egremont foreshore, man-made lagoons at Seaforth and the extensive intertidal flats at North Wirral Foreshore. Egremont is most important as a feeding

habitat for waders at low tide whilst Seaforth is primarily a high tide roost site, as well as a nesting site for terns. North Wirral Foreshore supports large numbers of feeding waders at low tide and also includes important high tide roost sites. 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 including Common tern and Bar-Tailed Godwit. The site qualifies under article 4.2 of the Directive (2009/147/EC) as it is used regularly by over 20,000 waterbirds

Mersey Narrows and North Wirral Foreshore Ramsar site

25. Located on the Irish Sea coast of north-west England, on the mouths of the Mersey and Dee estuaries, the site comprises large areas of saltmarsh and extensive intertidal sand and mud flats, with limited areas of brackish marsh, rocky shoreline and boulder clay cliffs, along a rural and industrial stretch of coast. The intertidal flats are internationally important feeding grounds for waders: the site regularly supports more than 20,000 waterbirds, including 2.4% of the *Calidris canutus islandica* population and 2.8% of the *Limosa lapponica* population.

Mersey Estuary SPA

26. The Mersey Estuary is on the Irish Sea coast of north-west England. The SPA encompasses all or parts of Mersey Estuary SSSI and New Ferry SSSI. It is a large, sheltered estuary which comprises large areas of saltmarsh and extensive intertidal sand and mudflats, with limited areas of brackish marsh, rocky shoreline and boulder clay cliffs, within a rural and industrial environment. The intertidal flats and saltmarshes provide feeding and roosting sites for large and internationally important populations of waterfowl. During the winter, the site is of major importance for duck and waders. The site is also important during spring and autumn migration periods, particularly for wader populations moving along the west coast of Britain. The site qualifies under article 4.1 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the Great Britain populations of Golden Plover. The site qualifies under article 4.2 of the Directive (79/409/EEC) as it is used regularly by 1% or more of the biogeographical populations of regularly occurring migratory species in any season including Redshank, Teal and Dunlin.

Mersey Estuary Ramsar site

27. 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.

Martin Mere SPA and Ramsar

28. Martin Mere is a low-lying wetland complex of open-water, marsh and grassland habitats overlying deep peat. It is situated to the north of Burscough. The principal interest of the site lies with the numbers of migrant birds which it supports during the winter months, with overall numbers of wildfowl regularly in excess of 10,000 and over 100 different species using Martin Mere as a wintering ground. Martin Mere SPA qualifies under article 4.1 of the Directive (79/409/EEC) as it is used regularly by 6.2%

or more of the Great Britain population of Berwick's swan; and the site is used regularly by 11.1% or more of the Great Britain population of whooper swan. The SPA qualifies under article 4.2 of the Directive (79/409/EEC) as overwinter it regularly supports 1.6% of the pintail population; 0.7% of the wigeon population; and 11.5% of the pink-footed goose population.

Martin Mere Ramsar site is designated under Criteria 5 and 6.

- Ramsar criterion 5 is the Assemblages of international importance: Species with peak counts in winter: 25306 waterfowl.
- Ramsar criterion 6 – species/populations occurring at levels of international importance. The qualifying species include:
 - Species with peak counts in spring/autumn: pink footed goose.
 - Species with peak counts in winter: tundra swan; whooper swan; Eurasian wigeon; and northern pintail.

29. Martin Mere SPA and Ramsar includes part of a former lake and mire which extended over some 1300 ha of the Lancashire coastal plain during the 17th century. The outstanding importance of Martin Mere is as a refuge for its large and diverse wintering, passage and breeding bird community. Areas of open water with associated muddy margins have been created, as well as seasonally flooded marsh and reed swamp habitats and areas of semi-improved grassland.

Qualifying Species
<i>Cygnus columbianus bewickii</i> ; Bewick's swan (Non-breeding) <i>Cygnus cygnus</i> ; Whooper swan (Non-breeding); <i>Anser brachyrhynchus</i> , Pink-footed goose (Non-breeding); <i>Anas crecca</i> ; Eurasian teal (Non-breeding); <i>Anas acuta</i> , Northern pintail (Non-breeding)
Assemblage Qualification
During the non-breeding season the SPA regularly supports an assemblage of waterfowl of more than 20,000 birds. Over winter, the site regularly supports 46,196 individual waterfowl (5 year peak mean 1991/2 - 1995/6) including: Pochard <i>Aythya ferina</i> , Mallard <i>Anas platyrhynchos</i> , Teal <i>Anas crecca</i> , Wigeon <i>Anas penelope</i> , Pintail <i>Anas acuta</i> , Pink-footed goose <i>Anser brachyrhynchus</i> , Whooper Swan <i>Cygnus cygnus</i> , Bewick's Swan <i>Cygnus columbianus bewickii</i> .

30. Martin Mere SSSI is contained within the boundary of the SPA and Ramsar site. The designation reasoning for Martin Mere SSSI is essentially the same as those for the SPA and Ramsar sites, namely a low-lying complex of open water, marsh and grassland habitats overlying deep peat with significant bird interest. As such, assessment of impacts to Martin Mere SSSI can be considered as part of assessment of the SPA and Ramsar.
31. Descriptions of the European and nationally designated sites plus their conservation objectives and vulnerabilities are available from the websites www.naturalengland.org.uk and www.jncc.defra.gov.uk or by request from Merseyside EAS.

Data sources used to inform assessment

32. The following data sources were used in order to inform the assessment of likely significant effects (amend as required):
- Merseyside Biobank data.

- Breeding and wintering bird's atlas⁸.
- Aerial imagery (Google Maps and Earth).

Summary of report findings

33. On this occasion, a wintering bird survey has not been completed. This is due to the small-scale nature of the development and records of qualifying non-breeding birds have been recorded in surrounding arable land such as pink-footed geese, teal and golden plover. These records returned low numbers of these species therefore it is not considered proportionate to conduct further non-breeding bird surveys
1. The site is in 10km grid square SJ48, tetrad N (2km grid square). The site is within SJ4486 (1km grid square). A search of the bird atlas⁹ for wintering bird species listed in national network sites that may feed or use arable land. The following species were recorded and are listed in a number of citations for national network sites:
 - teal (1-19 Nos.),
 - golden plover (50-299 Nos.)
 - lapwing (25-1499 Nos.)
2. It is noted that records of pink footed goose and swans are absent from this tetrad.
3. Data from Mersey BioBank returned:
 - Three pink-footed geese records, with one record (present count) at SJ48N (the 2km grid square that the site is within) dated October 2004 and two located at SJ4486 (which is the 1km grid square that the site is within) one with 120 count (January 2011) and one with 50 count dated October 2004.) These two are both located at Openfields Close which is located approx. 430m west of the application site.
 - Four records of teal located in SJ48N dated 2008 (two records), 2010 and 2011.
 - One golden plover record (2 count) was returned for SJ48N dated August 2007- November 2011.
34. The data informs the Competent Authorities assessment of likely significant effects which is set out below.

⁸ White, S.J. (Ed.), McCarthy, B., Dunstan, S., Martin, S.J., Harris, R.J., Hulme, G. and Marsh, P.J. (2013). *The State of Lancashire's Birds: An atlas survey of the breeding and wintering birds of Lancashire and North Merseyside, 2007-2011*. Lancashire and Cheshire Fauna Society, Rishton.

⁹ White, S.J. (Ed.), McCarthy, B., Dunstan, S., Martin, S.J., Harris, R.J., Hulme, G. and Marsh, P.J. (2013). *The State of Lancashire's Birds: An atlas survey of the breeding and wintering birds of Lancashire and North Merseyside, 2007-2011*. Lancashire and Cheshire Fauna Society, Rishton.

Assessment of likely significant effects – Source-Pathway-Receptor model

35. Table 1 below provides a summary of the sources, pathways and receptors identified for this project. Full details are provided within subsequent sections of this report.

Source	Pathway	Receptor	In-combination effects (Y/N)	Likely Significant Effects?
Site construction: habitat loss through direct land take or through loss of functionally linked habitat, on this occasion, foraging habitat for qualifying wintering bird species.	The development is located approx. 4.67km from Mersey Estuary SPA and Ramsar site . All works will be contained to within the existing curtilage. The site does not comprise of functionally linked habitat. No pathway	Qualifying features of international and national sites • Mersey Narrows and North Wirral Foreshore SPA and Ramsar. • Mersey Estuary SPA and Ramsar. • Ribble and Alt Estuaries SPA and Ramsar. • Martin Mere SPA and Ramsar Site (and associated SSSIs)	N	No likely significant effects
Site construction (including demolition of outrigger extension):	During autumn, winter, and early spring, several species of waterbird (notably pink-footed goose, whooper swan, lapwing, and golden plover) utilise feeding areas on agricultural land outside of the SPA's boundaries. The development site is adjacent to agricultural land which provides functionally linked habitat to these national and international designated sites. A review of the Lancashire Bird Atlas found records for moderate numbers of golden plover and lapwing within the tetrad SJ48N (within which the proposed development is located) and low numbers of teal. Records of pink footed goose and swans were absent from this tetrad. Records from Mersey BioBank returned: • three pink-footed geese records, with one record (present count) at SJ48N (the 2km grid square that the site is within) dated October 2004 and two located at SJ4486 (which is the 1km grid square that the site is within) one with 120 count (January 2011) and one with 50 count dated October 2004.) These two are both located at Openfields Close which is located approx. 430m west of the application site. • Four records of teal located in SJ48N dated 2008 (two records), 2010 and 2011. • One golden plover record (2 count) was returned for SJ48N dated August 2007- November 2011. Following the precautionary approach in this case the proposed works could disturb to the following qualifying features: golden plover, lapwing, pink-footed goose, and teal using functionally linked land surrounding the development during 1st September through until 31st March. The disturbance would be from visual and noise. This disturbance could reduce the size of the area where the birds could feed, and they would expend more energy trying to find additional feeding areas. Pathway Likely Significant Effects	• Mersey Narrows and North Wirral Foreshore SPA and Ramsar. • Mersey Estuary SPA and Ramsar. • Ribble and Alt Estuaries SPA and Ramsar. • Martin Mere SPA and Ramsar Site (and associated SSSIs)	N	Likely significant effects and therefore an Appropriate Assessment required.
Site construction: transfer of construction related pollutants	Due to the 4.67km distance between the proposed site and the international and national sites there will be no impact through construction related pollutants.	Qualifying features of international and national sites	N	No likely significant effects

Source	Pathway	Receptor	In-combination effects (Y/N)	Likely Significant Effects?
	No pathway	• Mersey Narrows and North Wirral Foreshore SPA and Ramsar. • Mersey Estuary SPA and Ramsar. • Ribble and Alt Estuaries SPA and Ramsar. • Martin Mere SPA and Ramsar Site (and associated SSSIs)		
Operational phase: noise disturbance	The application is for a residential extension and so there will be no increase in noise during operation. No pathway	Qualifying features of international and national sites • Mersey Narrows and North Wirral Foreshore SPA and Ramsar. • Mersey Estuary SPA and Ramsar. • Ribble and Alt Estuaries SPA and Ramsar. • Martin Mere SPA and Ramsar Site (and associated SSSIs)	N	No likely significant effects
Operational phase- recreational pressure	No additional houses are being constructed and so there will not be an increase in recreational pressure at any of the designated sites. No pathway	• Mersey Narrows and North Wirral Foreshore SPA and Ramsar. • Mersey Estuary SPA and Ramsar. • Ribble and Alt Estuaries SPA and Ramsar. • Martin Mere SPA and Ramsar Site (and associated SSSIs)	N	No likely significant effects

Table 1: Source-Pathway-Receptor Summary

In-combination effects

36. Relevant plans assessed for in-combination effects in relation to this project are:
- Knowsley Local Plan Core Strategy January 2016
37. The following projects were assessed for in-combination effects on the grounds that there are common potential pathways of impact:
- A search of current and proposed planning applications within 1km of the development site (Knowsley Borough Council's Planning Portal and MEAS consultation records).

Assessment of significance of effects

38. The likely significant effects identified were as follows:

Site construction – visual and noise disturbance (alone impact)

39. The proposals include demolition small single storey outrigger extension and the construction of a single-story extension to a detached house. This has the potential to create additional noise and visual disturbance to qualifying bird species in the surrounding arable land.
40. The small-scale, localised nature of the construction activities mean in-combination impacts can be discounted.

Discussion

41. The development site is located within an established arable landscape, which attracts wintering bird species to feed and roost. As such, visiting birds are somewhat acclimatized to large machinery associated with intensive agriculture. Arable fields directly east of the development site represent suitable arable land for wintering species. The hedges and boundary trees forming the site's north-western and south-eastern boundaries will provide some visual and noise screening from construction-related activities, but disturbance impacts during the wintering period cannot be discounted and mitigation is required as both a precautionary measure, and in the absence of wintering bird survey.

Conclusion of Test of Likely Significant Effects

42. Without the implementation of avoidance and mitigation measures, the proposals are likely to have significant effects on international and national sites.
43. Appropriate Assessment is required in accordance with Regulation 63 (Habitats Regulations 2017 (as amended)) and this can be found below

Appropriate Assessment

Introduction

44. Appropriate Assessment determines if the proposals will have an adverse effect on the integrity of international and national sites. A clear distinction has been made between embedded mitigation measures, which are essential features and characteristics of the proposals and additional avoidance and mitigation measures that are solely designed to avoid significant effects on of international and national sites.

Assessment of Effects carried through to Appropriate Assessment

Site construction - noise and visual disturbance effects

45. Disturbance impacts from construction related activities cannot be discounted during the wintering period.
46. Mitigation measures require the demolition and construction activities to be undertaken between April and August of any year. When this is not possible, then acoustic fencing/hoarding is to be installed along the rear of the application site boundary for demolition and construction works that are to take place between 1st September and 31st March.

Receptor	Adverse Significant Effect	Proposed Mitigation Measures	Adverse effect on site integrity with mitigation?
Qualifying species of: • Ribble and Alt Estuaries SPA; • Ribble and Alt Estuaries Ramsar site; • Mersey Narrows and North Wirral Foreshore SPA; • Mersey Narrows and North Wirral Foreshore Ramsar site; • Mersey Estuary SPA;	Construction noise and visual disturbance to qualifying bird species using the surrounding arable land as functionally linked land during autumn, winter, and early spring.	All works (demolition, construction, compounds, and storage) will be located within the red line boundary of the site. All vehicles will park on the site with sufficient space set out for vehicles turning. No works will encroach onto surrounding arable land. Acoustic fencing can reduce noises up to approx.32dB - information has been taken from the following site for example purposes only and is not a recommendation. https://www.jacksons-fencing.co.uk/acoustic-fencing It is assumed that birds will be located at a minimum of 10m from the proposed site (they are unlikely to be immediately adjacent to the site due to the enclosed nature.) General construction would require the use of machinery such as a	Provided that acoustic fencing/hoarding is installed along the rear of the application site boundary for demolition and construction works that are to take place between 1 st September and 31 st March which can be secured by a <u>suitably worded planning condition</u> , there will be no adverse effect on the integrity of the international and national sites.

Receptor	Adverse Significant Effect	Proposed Mitigation Measures	Adverse effect on site integrity with mitigation?
- Mersey Estuary Ramsar site; - Martin Mere SPA; and - Martin Mere Ramsar site. (and associated SSSIs)		dumper truck¹⁰ which has an acoustic output of 81dB¹¹ at the point of works. However, as birds are likely to be located further away (minimum 10m) then this this output will be reduced to 61dB¹² at the location of the birds. With an acoustic fence in place, this would reduce further to 29dB. Cutts et al 2009¹³ shows birds are tolerant of noise levels of up to 50dB. Therefore, acoustic fencing will reduce noise levels to those tolerated by birds so there will be no noise disturbance to birds using the arable land surrounding the site during the non-breeding bird season (1 September to 31 March inclusive.) This fencing will also provide a barrier to visual disturbance. The works are small scale and so it is recommended that should works take place outside of the following times 1st September to 31st March. Where this is not possible, and demolition and construction works need to be carried out during this time then acoustic fencing/hoarding would need to be installed along the rear boundary of the application site. Trees and hedges located along the north-western and south/eastern boundaries will aid the reduction noise and visual impacts in these areas.	

Table 2: Summary of Appropriate Assessment

¹⁰ Dumper truck chosen as it has the highest acoustic output for general construction activities

¹¹ Defra.2005. UPDATE OF NOISE DATABASE FOR PREDICTION OF NOISE ON CONSTRUCTION AND OPEN SITES

¹² Noise calculator- <http://www.sengpielaudio.com/calculator-distance.htm>

¹³ Cutts, N., A. Phelps, and D. Burdon. 2009. "Construction and Waterfowl: Defining Sensitivity, Response, Impacts and Guidance, Report to Humber INCA." ZBB710-F-2009. Institute of Estuarine and Coastal Studies University of Hull.

Integrity Test

47. On the basis of the above information, it is Knowsley Council's opinion that the proposed project to which this screening opinion relates:
- a. is not directly connected with or necessary to the management of the sites; and
 - b. will not lead to an adverse effect upon the integrity of each of the following national and international sites:
 - Ribble and Alt Estuaries SPA
 - Ribble and Alt Estuaries Ramsar site
 - Mersey Narrows and North Wirral Foreshore SPA
 - Mersey Narrows and North Wirral Foreshore Ramsar site
 - Mersey Estuary SPA
 - Mersey Estuary Ramsar site
 - Martin Mere SPA
 - Martin Mere Ramsar site
 - .
48. Accordingly, **no assessment of alternatives to the project or consideration of IROPI is required to be made under Regulations 64 of the Habitats Regulations before the Council decides to undertake, or give any consent, permission, or other authorisation for this plan.**
49. This HRA report has assessed the project as submitted for planning permission. If there are changes to the project e.g., type of build, location, timing, that may affect the conclusions then the project will require further assessment. This is part of the iterative process of undertaking HRA.