Intermodal Logistics Park North Ltd

INTERMODAL LOGISTICS PARK NORTH (ILPN)

Intermodal Logistics Park North (ILPN) Strategic Rail Freight Interchange (SRFI)

Project reference TR510001

Preliminary Environmental Information Report (PEIR)

Chapter 20: Cumulative, in-combination and transboundary effects

October 2025

Planning Act 2008

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

This document forms a part of a Preliminary Environmental Information Report (PEIR) for the Intermodal Logistics Park (ILP) North project.

A PEIR presents environmental information to assist consultees to form an informed view of the likely significant environmental effects of a proposed development and provide feedback.

This PEIR has been prepared by the project promoter, Intermodal Logistics Park North Ltd. The Proposed Development is described in Chapter 3 of the PEIR and is the subject of a public consultation.

Details of how to respond to the public consultation are provided at the end of Chapter 1 of the PEIR and on the project website:

https://www.tritaxbigbox.co.uk/our-spaces/intermodal-logistics-park-north/

This feedback will be taken into account by Intermodal Logistics Park North Ltd in the preparation of its application for a Development Consent Order for the project.

Chapter 20 ◆ Cumulative, in-combination and transboundary effects

INTRODUCTION

20.1 Schedule 4 paragraph 5 of the EIA Regulations requires:

'A description of the likely significant effects of the development on the environment resulting from, inter alia: … (e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources'. The text goes on to state that *'the description of the likely significant effects on the factors specified in regulation 5(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development'.*

20.2 The EIA for the ILPN RFI assesses the **cumulative effects (inter-project effects)** of the Proposed Development and other development projects at both the construction and operational phases. At this stage the assessment is at a preparatory stage and the full assessment will be set out in the ES submitted with the application for the Proposed Development.

20.3 This chapter of the PEIR also sets out the approach to the analysis of the **in-combination effects (intra-project effects)** that might arise where receptors experience multiple potentially non-significant effects from a range of impacts, which taken together might become significant – for example, noise and visual effects experienced in combination.

20.4 This chapter of the PEIR sets out the approach adopted for the assessment of these effects and the initial outcomes of the assessment based on the preliminary environmental information.

RELEVANT LAW, POLICY AND GUIDANCE

20.5 The requirement for a cumulative effects assessment (CEA) is set out in the Town and County Planning (Environmental Impact Assessment) Regulations 2017, as described in paragraph 20.1 above.

20.6 The need to consider cumulative effects in planning and decision making is also set out in the National Policy Statement for National Networks (NPSNN). Paragraph 4.12 states that '*the applicant should provide information on how the effects of the proposal would combine and interact with the effects of other development, where relevant. For most practical purposes*

this means that the applicant should consider the impact of other existing and committed developments within an appropriate geographical area and assess the additional impact of their own development'.

20.7 The NPSNN goes on to explain that '*there is no single or agreed approach to assessing the cumulative impacts of environmental effects due to some effects being limited to a specific geographical boundary but others, such as the impact and effect of carbon emissions on climate change, not being geographically limited'.*

20.8 A range of guidance is therefore available for conducting CEA given that there is no single industry standard for CEA. In this instance, the Planning Inspectorate's Advice on Cumulative Effects Assessment (September 2024, updated in March 2025) has been followed and is explained in further detail throughout the remainder of this chapter.

CONSULTATION TO DATE

20.9 The Scoping Consultation and informal consultations have invited relevant planning authorities to advise on which projects should be considered in the assessment of cumulative effects. Where responses were received, projects have been incorporated into the PEIR via the cumulative long list (Appendix 20.1). A summary of consultation responses received is provided in Table 20.1.

Table 20.1 Scoping and informal consultation summary

Consultee	Consultee comment	Response
EIA Scoping Consultation		
Planning Inspectorate	Figures should be provided for ease of reference to show the projects considered in the CEA. The list and nature of the projects should be discussed and where possible agreed with relevant consultation bodies. The Applicant's attention is directed to the response of St Helens Council which includes further projects for consideration in the CEA.	Figures have been included within the CEA for the PEIR showing the projects and allocations considered as part of the long list (Figures 20.3-20.6). A list of cumulative projects has been prepared and is shared with relevant consultation bodies as part of this PEIR (Appendix 20.1). Further projects provided by St Helens Council have been noted and have been included within the long list of projects (Appendix 20.1).
St Helens	In addition to the sites identified in	The list of sites provided by St Helens

Consultee	Consultee comment	Response
Council	the Scoping Report, the LPA would also want to see the following sites included as part of any cumulative assessment: • Parkside Link Road (P/2018/0249/FUL) • Vulcan Works (APPH4315/V/06/1200038) • Land to the north of Penny Lane (P/2015/0571) • Land South of Penny Lane (site allocation reference 4EA) • Land off Haydock Lane (P/2022/0785/FUL) • Land West of Millfield Lane (P/2024/0045/FUL) • Lane West of the A49 (site allocation reference 7HA) • Land at Florida Farm (P/2023/0512/FUL) • Land West of Lodge Lane (P/2022/0063/OUP) • Lane West of Mill Lane (P/2023/0619/FUL) • Land Bounded by Stanley Street, Queen Street, and Market Street (P/2022/0213/HYBR) • Land Adjacent to Unit 2 Moore Park Way (P/2022/807/FUL) • Omega South Western Extension Land (site allocation reference 1EA) • Land to the East of M6 Junction	Council has been reviewed and the relevant sites have been added into the cumulative long list (Appendix 20.1). Five of the sites provided by St Helens Council are fully built out and therefore are classified as baseline environment for the purposes of assessment (these are: Vulcan Works; Land to the north of Penny Lane; Land West of the A49; Land Adjacent to Unit 2 Moore Park Way; and Omega South Western Extension Land). Therefore, the following sites have been added to the cumulative list: • Parkside Link Road (P/2018/0249/FUL) • Land South of Penny Lane (site allocation reference 4EA) • Land off Haydock Lane (P/2022/0785/FUL) • Land West of Millfield Lane (P/2024/0045/FUL) • Land at Florida Farm (P/2023/0512/FUL) • Land West of Lodge Lane (P/2022/0063/OUP) • Lane West of Mill Lane (P/2023/0619/FUL) • Land Bounded by Stanley Street, Queen Street, and Market Street (P/2022/0213/HYBR) • Land to the East of M6 Junction 23 (site allocation reference 2ES) • Land East of Newlands Garage (site allocation reference 4HS)

Consultee	Consultee comment	Response
	23 (site allocation reference 2ES) • Land East of Newlands Garage (site allocation reference 4HS) • Land to the West of Winwick Road (site allocation reference 5HS)	• Land to the West of Winwick Road (site allocation reference 5HS)

METHODOLOGY AND DATA SOURCES

Cumulative effects

20.10 According to the Planning Inspectorate's Advice on CEA relevant to nationally significant infrastructure projects:

*'To establish which other existing and, or approved developments should be included in the assessment, the applicant should define and document the ZOI [*Zone of Influence*] for each environmental aspect considered within the Environmental Statement…'.*

20.11 The cumulative assessment has used the draft Main Order Limits as the Cumulative Study Area, from which the relevant ZOI's have been calculated as described below.

20.12 The ZOI for each aspect is documented in Table 20.2 and illustrated in Figures 20.1 and 20.2. The 'other existing development and/or approved developments' have been identified by reference to planning applications, relevant development plans and any other available sources including stakeholder consultations, in particular with the relevant planning authorities. Where multiple ZOI's have been provided, the precautionary principle has been applied and the largest ZOI has been used in the assessment.

Table 20.2 Zones of Influence

Environmental Topic	Zone of Influence (ZOI)
Ecology	The assessment is focussed on local sites and protected species and the ZOI takes into account cumulative schemes within 2 km of the draft Main Order Limits. A ZOI of 10 km from the draft Main Order Limits has been used for internationally designated sites.
Air Quality	The ZOI for construction dust impacts is 500 m from the draft Main Order

Environmental Topic	Zone of Influence (ZOI)
	Limits. The ZOI for traffic related effects, considering commuting distances and any cumulative impact expected from traffic generation, distribution and associated emissions from cumulative schemes, is defined by the transport assessment. It is considered that the assessment of vehicle emissions are inherently cumulative as they incorporate modelled traffic data growth for future traffic flows. The ZOI for rail emissions outside of the DCO Site is classified as rail-related schemes within the area covered by the Liverpool City Region, the Greater Manchester Combined Authority and Warrington Borough Council. In accordance with Department for Environment, Food and Rural Affairs guidance, consideration is given to receptors within a lateral distance of 30 m from the track along the identified longitudinal extent where the background nitrogen dioxide (NO_2) concentration is above 25µg/m^3.
Hydrology	The ZOI for Hydrology is the draft Main Order Limits and the adjacent Highfield Moss SSSI.
Landscape and Visual Impact Assessment (LVIA)	The ZOI for LVIA is 5 km from the draft Main Order Limits, which is a maximum study area extent based on the Zone of Theoretical Visibility (ZTVs) of proposed buildings at a maximum height of 35 m above existing ground level. The 5km radius is measured from the draft Main Order Limits as a 'worst-case' extent with regards identifying potential significant effects and may be refined further as the design is developed.
Noise and Vibration	The ZOI is up to 1 km from the draft Main Order Limits for construction noise and operational noise. Additionally, the road traffic noise ZOI during construction and operation is in line with the transport ZOI, although it is considered that the assessment of road traffic noise is inherently cumulative as the future traffic flows incorporate modelled traffic growth from schemes agreed in the Transport Working Group. With regard to cumulative rail effects, the Rail Consultant has advised they are not aware of any planned service increases which need to be addressed. Therefore, cumulative rail noise and vibration effects have been not been considered further.

Environmental Topic	Zone of Influence (ZOI)
Ground	The ZOI is 500 m from the draft Main Order Limits in response to comments received in the Scoping Opinion.
Population and Health	The ZOI aligns with the air, noise, transport and socio-economics ZOI. The ZOI assessment of physical activity, open space, leisure and play is the DCO Site; the employment and income ZOI is 30 km from the draft Main Order Limits; the air quality ZOI is 500 m from the draft Main Order Limits for construction; and the noise ZOI is 1 km from the draft Main Order Limits for construction. The ZOI for the assessment of transport modes, access and connections, traffic noise and traffic emissions is in line with the transport, air quality and noise ZOI.
Socio-economics	The ZOI for socio-economic effects, in line with best practice and experience, is 30 km from the draft Main Order Limits. This is anticipated to represent an appropriate area to capture labour market effects, though this will be kept under review.
Transport	Discussions with relevant local and national highway authorities are ongoing with regards to scope and approach to transport modelling and transport assessment. Approach to trip generation and trip distribution is a key part of this, and will ultimately define the ZOI for transport, which cannot currently be assumed. Transport will have influence on, or be influenced by, as a minimum air quality, noise and socio-economics. Notwithstanding the above, some assessments, such as transport and associated assessments of vehicle emissions (including air and noise), are inherently cumulative as they incorporate modelled traffic data growth for future traffic flows. As these assessments are thorough and include a worst-case assessment, no additional cumulative assessment of these aspects is considered to be required, in line with PINS advice "*Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment*" dated September 2024.
Built heritage	A ZOI of 1 km from the draft Main Order Limits is considered to be proportionate to capture designated and non-designated heritage assets which may be affected (in line with NPSNN paragraph 5.2.10).
Archaeology	A ZOI of 1 km from the draft Main Order Limits has been considered.

Environmental Topic	Zone of Influence (ZOI)
Materials and Waste	A ZOI of 20 km from the draft Main Order Limits is considered. This is considered to be proportionate given the likely effects of the Proposed Development and has been defined to account for the DCO Site, Local Waste Facilities, Transport Routes and Regional Waste Facilities.

20.13 In relation to the transport, air and noise cumulative assessments, PINS cumulative advice note states:

'Certain assessments, such as transport and associated operational assessments of vehicular emissions (including air and noise) may inherently be cumulative assessments. This is because they may incorporate modelled traffic data growth for future traffic flows. Where these assessments are comprehensive and include a worst case within the defined assessment parameters, no additional cumulative assessment of these aspects is required'.

20.14 The cumulative assessment of transport, and the associated noise and air quality assessments, will be based on comprehensive transport modelling, the parameters of which will be agreed with Transport Working Group (TWG). It is considered that the methodologies undertaken for the assessment of operational cumulative effects for air quality and noise in relation to road traffic matches that described in paragraph 20.13 above i.e. it is inherent in the assessment and no additional cumulative assessment is required. With regard to non-road and rail traffic related air quality and noise effects, the cumulative assessments are based on the ZOI's provided in Table 20.2 above.

20.15 The cumulative effects relating to climate change have been considered within the Energy and Climate Change PEIR chapter (Chapter 17) as a standalone assessment due to the global nature of the effects associated with climate.

20.16 The following principles of the four stage assessment approach to cumulative assessment, as outlined in PINS cumulative guidance, have been adopted in the PEIR for the ILPN RFI:

- **Stage 1:** Establish the Project's ZOI and Long List of 'other existing development and/or approved development';
- **Stage 2:** Establish a shortlist of 'other existing development and/or approved development' and apply a threshold criterion based on temporal scope, the scale and nature of development and any other relevant factors to assist in deciding whether to include or exclude the 'other existing development and/or approved development' identified;
- **Stage 3:** Information Gathering – compile detailed information on the 'other existing development and/ or approved development' shortlisted at Stage 2 including design and location, programme of construction, operation and decommissioning and environmental assessment information; and

- **Stage 4:** Assessment – assess the cumulative effects of the Proposed Development with the shortlist of 'other existing development and/or approved development' based on factors including duration of effect, extent of effect, type of effect, frequency of effect, value and resilience of receptors and likely success of mitigation.

20.17 To enable a reasonable and proportionate assessment, the following criteria have been used to identify schemes which could result in potential cumulative effects with the Proposed Development in accordance with Teir 1, 2 and 3 in the PINS cumulative guidance:

- projects under construction;
- permitted application(s), but not yet implemented;
- submitted application(s), not yet determined;
- submitted appeal(s), not yet determined;
- projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted;
- development allocations identified in the relevant Development Plan (and emerging Development Plans – with appropriate weight); and
- development allocations identified in other plans and programmes (as appropriate) which set the framework for future development consents/approvals, where such development is reasonably likely to come forward.

20.18 Planning applications that have been refused and are not subject to appeal, and applications that have been withdrawn, will not be considered, as their implementation is not considered to be reasonably foreseeable.

20.19 Using these categories, developments have been identified by reference to a planning application database maintained by Glenigan, within a 30 km radius of the DCO Site. These sites have been initially screened based on the threshold criteria set out in Schedule 2 of the EIA Regulations, on the basis that significant cumulative effects for sites of a smaller scale are considered unlikely.

20.20 Allocated sites in the 30 km study area were also added to the long list and were categorised as Tier 3, as suggested in the PINS cumulative advice, to indicate that less information would be available for these sites and therefore this would need to be taken into account during the assessment in Stage 2.

20.21 To undertake Stage 2 of the cumulative assessment process, as outlined above, the long-list was circulated to the consultant team to provide feedback on whether the schemes would overlap in temporal scope or have significant cumulative effects with the Proposed Development. This feedback was then used to filter projects out where there were no significant effects predicted and to pull through schemes to Stage 3 and 4 that had potential for significant effects. The process of filtering schemes through Stage 1 and 2 is shown in Appendix 20.1 and illustrated in Figures 20.3 to 20.6.

20.22 This list will now proceed to Stage 3, as described above and will be reviewed in consultation with the relevant local planning authorities, to identify any other development in the area of the Proposed Development that should be considered prior to the completion of the ES.

In-combination effects

20.23 As explained above, the PEIR also considers the in-combination effects. The in-combination effects identified in the technical chapters are assessed using professional judgement and a qualitative assessment approach. To determine whether there is potential for a significant in-combination effect on an individual receptor, all residual effects for the ILPN RFI are listed against the individual receptors affected, so that receptors that might be affected by more than one impact can be identified.

20.24 Where only neutral or negligible effects are identified, it is considered that there is no potential for in-combination effects. A full in-combination effects assessment will be included with the ES.

THE CURRENT CONSULTATION

20.25 Consultees are invited to confirm the shortlist of projects to be considered in the assessment of cumulative effects to ensure that the shortlist of other existing development and/or approved development identified for the CEA is comprehensive and accurate.

Table 20.3 Summary of topic-based cumulative assessments

Topic	Potential cumulative effects during construction	Potential cumulative effects during operation
Land use and socio-economic effects	The long list of 240 planning application have been refined, with 29 schemes to be fully reviewed at the Socio-economic ES chapter stage. The long list of 95 land allocations have been refined, with 31 allocations to be fully reviewed at the Socio-economic ES chapter stage. The three NSIP projects which have been identified have been reviewed and will not be carried through to Stage 3 and 4 of the cumulative assessment.	
Transport and traffic	The full list of projects will be assessed at the ES stage, to determine the likelihood of any cumulative traffic effects in an uncertainty log. In the first instance, only schemes that are identified as 'more than likely' will be considered. The approach is required, firstly to understand the forecast traffic associated with any development site and secondly to understand any necessary mitigation for any individual project. These Uncertainty Logs have been discussed and agreed with the TWG and therefore these projects will then be added to the background growth traffic assumptions to provide a Future Baseline Scenario. The second step will be to consider whether any cumulative project is forecast to have a significant effect on highway links with the Study Area identified for the Proposed Development. The final step will be to agree the position with the relevant highway authority as part of wider TA scoping.	
Air quality	Should construction of other developments within 500m of the DCO Site, including CS1, CS2, CS3 and CS4 and the associated allocations, overlap with the Proposed Development it is possible that in-combination dust effects may occur at sensitive receptors. However, fugitive dust emissions associated with the Proposed Development will be minimised through the outlined mitigation measures. A similar level of control would also be	Cumulative effects as a result of existing rail emissions were considered through use of the relevant methodologies which incorporate baseline air quality conditions into the assessment. No developments with the potential for in-combination operational phase rail emissions were identified for consideration in the assessment.

Topic	Potential cumulative effects during construction	Potential cumulative effects during operation
	expected for any other scheme. Therefore, cumulative effects are predicted to be not significant. Cumulative and in-combination effects as a result of construction and operational phase road vehicle exhaust emissions will be assessed once traffic data is received. The results will then be reported through the ES in time for submission of the DCO application.	Cumulative and in-combination effects as a result of construction and operational phase road vehicle exhaust emissions will be assessed once traffic data is received. The results will then be reported through the ES in time for submission of the DCO application.
Noise and vibration	Should the construction phase of other developments within 1 km of the DCO Site including CS1, CS2, CS3 and associated allocation LP1 (Parkside West) , overlap with the construction phase of the Proposed Development, cumulative noise effects may occur at sensitive receptors. However, these would be minimised through the mitigation measures outlined in the CEMP for the Proposed Development. The effects arising from any cumulative schemes would also be expected to be controlled by their own CEMP or similar mechanism. Therefore, it is not anticipated that any significant cumulative effects would arise from construction noise. It is not anticipated that there would be any cumulative vibration effects owing to the distances between the cumulative schemes, the Proposed	Based on the list of schemes identified in Appendix 20.1, it is not anticipated that there would be any cumulative effects arising from rail noise or vibration as these developments will not result in any additional passenger or freight train services. In terms of operational noise, there could be some cumulative effects from Parkside West and the Proposed Development. It is most likely that these would occur at the receptors close to the Western Rail Chord. Mitigation in the form of a barrier has been proposed to minimise effects arising from the Western Rail Chord and therefore it is considered unlikely that any cumulative effects would be significant. There could also be cumulative effects from the Proposed Development on receptors to the west of the M6, which are also affected by Parkside West. However, it is unlikely that these would be

Topic	Potential cumulative effects during construction	Potential cumulative effects during operation
	Development and the sensitive receptors.	significant, particularly given the distance to the Main Site, the prevailing background noise source of the M6 motorway and the mitigation measures proposed for each development. The cumulative effects will be determined at the ES stage of the project.
	Cumulative effects as a result of construction and operational road traffic noise will be assessed as the project progresses and traffic data becomes available. The cumulative developments and allocations that have been included in the relevant traffic scenarios (as agreed with the Transport Working Group) will be clearly identified within the ES. The comparison of the future baseline scenarios against the with development scenarios will allow the relevant cumulative effects to be identified. In-combination effects (intra-project effects) on receptors will be identified at the ES stage of the project, once it has been possible to determine the relevant noise and vibration effects from all noise and vibration sources associated with the project. Consideration will then be given to any other effects that may occur from the Proposed Development at each receptor, and whether this would affect the significance of the overall effect of the ILPN RFI at that receptor.	
Landscape and visual effects	There are 15 developments within the Study Area which are considered to have potential to result in cumulative landscape and visual effects based on active planning applications and local plan allocations. These developments, and any others which arise prior to the DCO submission, will be assessed within the LVIA chapter of the ES.	
Ecology and biodiversity	It is anticipated that for all proposed developments considered as part of this cumulative assessment, mitigation measures both embedded as design or within plans, or additional mitigation would be in place to reduce any adverse effects on nature conservation and biodiversity. It is assumed that any adverse effects arising from these developments would be reduced to acceptable levels through appropriate design, with mitigation and	

Topic	Potential cumulative effects during construction	Potential cumulative effects during operation
	compensatory measures where necessary, and in some cases providing biodiversity enhancements. On the assumption that each approved or anticipated forthcoming development therefore incorporates appropriate mitigation to reduce its own effects, overall effects will be no greater than any individual effect identified for this Proposed Development and would be unlikely to result in any long-term significant harm for the vast majority of receptors. However, a number of the above applications and allocations include the loss of agricultural cropland likely to be used by farmland birds. When considered as a whole the Proposed Development and the applications and allocations would result in the loss of a large area of agricultural cropland in the Local area which would be considered to represent a ***moderate-major adverse effect to farmland breeding birds at the Local level in the absence of mitigation*.** The Proposed Development will be subject to off-site compensation for loss of farmland breeding bird habitat, and it is anticipated that all or the majority of the above applications and allocations would also include compensation for losses of farmland bird habitats. Considering the proposed and likely compensation to be provided the combined cumulative effect is considered to be reduced to a ***minor adverse effect at the Local level and would not be considered to be significant.***	
Cultural heritage	The following developments would be assessed within the cumulative assessment for cultural heritage assets: CS1; CS2; CS3; CS4; CS5; and, CS6. Planning applications CS1, CS2 and CS3 relate to an emerging development at the former Parkside Colliery, located south of the DCO Site, known as Parkside West. Planning application CS2 pertains to a hybrid application for Parkside West Phase 2 and is a live application, submitted following the grant of permission for Phase 1 of the scheme in 2021 (ref. P/2018/0048/OUP). It is anticipated that with allocations LP1-LP4 that a high level of change is anticipated within the area, for both employment uses and housing. The Proposed Development is likely to be experienced as an element of emerging change to the area, associated with an intensification and expansion of the existing and emerging	

Topic	Potential cumulative effects during construction	Potential cumulative effects during operation
	built infrastructure set amongst a green landscape, which is characterful of the area. These schemes have been analysed in Chapter 12 of this PEIR, which has concluded that there are unlikely to be any significant cumulative effects.	
Archaeology	Cumulative effects on archaeological assets can occur during construction where areas of archaeology or contiguous or contemporaneous archaeology assets are affected by more than one development footprint. For such effects to occur development footprints need to overlap or be adjacent and where this is not the case the distance of separation is such that the inter-project development proposal can be scoped out of any cumulative assessment for this aspect of the historic environment topic. In relation to allocated sites LP1 and LP2, the potential for a cumulative effect to take place is considered low. Additionally, it is possible that different developments within a Study Area may have the potential to harm similar remains (both in terms of archaeological significance and cultural/historical association) even if not adjacent. This includes also the potential for fragmentation and isolation from surroundings. As such, the following developments shown in Figure 20.4 are considered as having potential for cumulative effects with the Proposed Development on the Registered Historic Battlefield of Winwick (NLE: 1412878; MME13856): • Planning application ref. P/2023/0341/RES – CS1 • Planning application ref. P/2024/0419/HYEIA – CS2 Additionally, due to the location of the allocated sites LP1 and LP2 which are partially located within the draft Order Limits, it is anticipated that any below-ground effect arising from the construction works within the allocated sites may have potential for cumulative effects on archaeological assets. In consideration of the current understanding of the archaeological baseline, and before further evaluation	

Topic	Potential cumulative effects during construction	Potential cumulative effects during operation
	work, the distance between the Proposed Development and the other developments included in the list of Cumulative Schemes included in Appendix 20.1 is considered sufficient to avoid instances of fragmentation and isolation from surroundings arising from archaeological assets being affected by more than one scheme. A further review will be carried out as part of the Archaeology ES Chapter, after the results of the intrusive archaeological evaluation are available. It is also anticipated that any other direct or indirect impact arising from construction activities relating to other developments will be assessed by the relevant LPAs, and adequate mitigation will be implemented. Therefore, while the development above and the allocated sites are considered to have potential for cumulative effects with the Proposed Development, it is not expected such effects to be greater than the predicted effects arising from any individual development, which will be assessed and mitigated separately, in line with the current overarching policies and legislation. A well-designed project correctly assessed and mitigated may have the indirect benefits enhancing the understanding of the archaeological background of the draft Order Limits using information and results of archaeological interventions resulting from other developments.	
Surface water and flood risk	All committed developments nearby will be subject to similar requirements of national planning policy and best practice as the Proposed Development, to limit surface water runoff and to manage water efficiently and in a sustainable way, including with regards to climate change. As such, there are predicted to be no cumulative effects with other committed development with regards to surface water and flood risk. Outside of the committed developments, any emerging proposals will also adhere to the same principles with regards to reducing flood risk and limiting surface water runoff. Therefore, it can be considered likely that there would be no cumulative adverse impact from other developments which are not yet constructed or operational. Overall, given the strength of the planning policy related to surface water and flood risk, should the existing, permitted or emerging schemes be approved and delivered, the cumulative impact will be negligible.	

Topic	Potential cumulative effects during construction	Potential cumulative effects during operation
Geology, soils and contaminated land	All of the developments considered will be subject to similar requirements of national planning policy and best practice as the Proposed Development, to limit contamination impact of sensitive receptors, most notably the Principal Aquifer in the Chester Formation. As such, there are predicted to be no cumulative effects with other committed development with regards to geology and contamination. The Parkside development is on former mining land and so regeneration and remediation requirements will have a cumulative benefit in groundwater quality improvement in reducing contaminant load across the study area. Any emerging proposals will also adhere to the same principles. Therefore, it can be considered likely that there would be no cumulative adverse effect from other developments which are not yet constructed or operational. Therefore, the cumulative impact will be negligible.	
Materials and waste	There is the potential for additional impacts with regards to material use and waste disposal when the Proposed Development is considered alongside other committed developments within the local vicinity. Regional development will have an increased drawdown on the regional landfill capacity. At this stage, it is assumed that all consented schemes within the study area will be required to meet the requirements of relevant legislation and local policies. This will include adherence to the Waste Hierarchy and a target of at least 70% recovery of wastes generated (as per the Waste Framework Directive) with a view to achieve 2035 targets. Additional development can also be considered to have a positive cumulative effect. The schemes assessed for this cumulative assessment can also provide opportunities to be donor or receiver sites for surplus excavated material (if generated). Four other planning applications of note are the construction of new waste management facilities within the cumulative study area. The development of these new waste management facilities will provide additional capacity to manage waste generated once the Proposed Development is operational.	
Population and	Where there is potential overlap during the	Once operational, the contribution to changes in

Topic	Potential cumulative effects during construction	Potential cumulative effects during operation
health	construction phase of the Proposed Development and cumulative developments located within 500m of the draft Main Order Limits, it is unlikely that significant cumulative dust or noise impacts would occur as each separate project would be required to control environmental pollution through standard mitigation measures. Any residual effects would be temporary, intermittent and short term in nature. Similarly, traffic generated by cumulative developments during any potential construction phase overlap would be short term in nature and not of a level which would result in significant cumulative impacts with the Proposed Development.	environmental determinants of health would largely be limited to additional traffic and associated changes in air quality and noise. The potential cumulative population and health effects from these changes will be assessed when traffic data, and associated air quality and noise modelling is available. There are 29 schemes and 31 land allocations identified in Chapter 6: Land Use and Socio-economic Effects that will be reviewed in detail for the final ES. These cumulative developments have the potential to contribute to changes socio-economic determinants of health, such as employment. As a key wider determinant of health, the cumulative impacts on the socio-economic environment will be taken into consideration in the context of population-level health outcomes.

IN-COMBINATION EFFECTS

20.26 The receptors for the in-combination assessment can be divided broadly into a number of main groups, as listed below:

- local residents;
- ecological receptors;
- road users; and
- heritage assets.

20.27 Receptors that are significantly adversely affected by two or more residual effects will be identified at the ES stage. These will be analysed to identify whether the effects have the potential to interact and either worsen or improve as a result.

TRANSBOUNDARY EFFECTS

20.28 Certain types of major development might exert environmental effects that extend beyond the boundary of the nation-state in which the Proposed Development would be located. Planning Inspectorate Advice on Transboundary Impacts and Process (March 2025) offers guidance on the procedures for transboundary consultation associated with a DCO application.

20.29 PINS Advice explains that:

'The UK is a signatory to:

- *the United Nations Economic Commission for Europe (UNECE) Convention on Environmental Impact Assessment in a Transboundary Context, known as the 'Espoo Convention'.*
- *the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, known as the 'Aarhus Convention'*

20.30 The European Union (EU) Directive 85/337/EEC (as amended) (the EIA Directive) implements the Espoo and Aarhus Conventions in the EU and is transposed into UK law through the EIA Regulations.'

20.31 The Advice explains the role of developers and offers the following advice:

"Information about potential for transboundary effects should be provided by the applicant as part of:

- *its scoping request under Regulation 8 of the EIA Regulations (if one is made)*
- *the suite of documents submitted with the NSIP application"*

20.32 The 2024 Scoping Opinion provided by the Inspectorate in relation to the Proposed Development stated the following in relation to transboundary effects:

"The Inspectorate on behalf of the SoS has considered the Proposed Development and concludes that the Proposed Development is unlikely to have a significant effect either alone or cumulatively on the environment in a European Economic Area State. In reaching this conclusion the Inspectorate has identified and considered the Proposed Development's likely impacts including consideration of potential pathways and the extent, magnitude, probability, duration, frequency and reversibility of the impacts.

The Inspectorate considers that the likelihood of transboundary effects resulting from the Proposed Development is so low that it does not warrant the issue of a detailed transboundary screening. However, this position will remain under review and will have regard to any new or materially different information coming to light which may alter that decision"

20.33 As such, no further assessment has been undertaken in relation to transboundary effects.