◆ Flood Risk and Drainage

INTRODUCTION

1. Intermodal Logistics Park North Ltd. ('the Applicant') is promoting proposals for a new strategic rail freight interchange (SRFI) and associated development on land to the east of Newton-le-Willows, in the jurisdictions of St Helens, Wigan and Warrington Councils. An SRFI is a large multi-purpose freight interchange and distribution centre linked into both the rail and trunk road systems. SRFIs reduce the cost of moving freight by rail and encourage the transfer of freight from road to rail, thereby reducing carbon emissions and contributing to the UK's target to achieve net zero by 2050.

2. Under the Planning Act 2008, the proposals qualify as a Nationally Significant Infrastructure Project (NSIP). Accordingly, an application for a Development Consent Order (DCO) is to be made to the Planning Inspectorate (PINS), which will examine the DCO application on behalf of the Secretary of State (SoS) for Transport.

3. Before making a DCO application, an Environmental Impact Assessment (EIA) of the Proposed Development will be undertaken in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ('the EIA Regulations'). EIA is a process that provides the decision maker with sufficient information about the likely environmental effects of a project and is used to improve the environmental design of a development proposal. The first stage of this process was the submission of a request for a formal scoping opinion under Regulation 10 of the EIA Regulations.

4. The Applicant submitted an EIA Scoping Report to the Planning Inspectorate in October 2024. This outlined the work undertaken to date and sought advice from the Inspectorate on the likely significant effects of the Proposed Development and the topics that needed to be assessed as part of the Environmental Impact Assessment (EIA). A Scoping Opinion was received in December 2024 and this will be used to inform the EIA process for the Proposed Development. A summary of the main comments received and how the Applicant intends to address these are set out in the table below.

Table 1 Scoping Opinion comments and responses

Inspectorate's Comments	Applicant's Response
The Inspectorate considers given the nature and location of the Proposed Development that significant effects are unlikely to occur	The Applicant notes these comments.

Inspectorate's Comments	Applicant's Response
from coastal flooding or flooding from canals and reservoirs, so these can be scoped out.	
The extent of and rationale for selecting the study area(s) should be clearly and consistently set out in the ES and associated figures, in order to represent the potential maximum extent of likely significant effects. The Applicant is encouraged to agree the study area(s) with relevant consultation bodies, including the Environment Agency and Lead Local Flood Bodies.	The Applicant notes the comments. The study area(s) will take these comments, including those on Geology, Soils and Contaminated Land, as well as the study areas for other technical chapters into consideration. The Applicant will seek to agree the Study Area with the relevant statutory bodies.
This methodology should also describe how magnitude of effect on potable water supply and licenced abstractions will be defined.	The Applicant notes this comment.
If part of the Proposed Development, effects from potential discharges of firewater foam associated with battery storage should be included in the assessment of site discharges to surface water within the ES.	The Applicant notes this comment.
The ES should clarify where the assessment of effects on receptors is presented and ensure, where relevant, that there is appropriate cross reference between related assessments.	The Applicant notes this comment.
The assessment of effects on water quality should include consideration of the effects on groundwater quality, where significant effects are likely to occur.	The Applicant acknowledges the need to consider effects on groundwater quality, where significant effects are likely to occur. Within the Hydrology ES Chapter, groundwater will be considered in the context of potential effects resulting from the proposed drainage scheme. Groundwater quality, considering contamination from ground or during the construction phase, will be considered within the Geology, Soils and Contaminated Land ES Chapter. Any effects on the

Inspectorate's Comments	Applicant's Response
	Highfield Moss SSSI will be considered under the Ecology ES Chapter. To establish the effects on groundwater quality, further works will be undertaken to inform the Geology, Soils and Contaminated Land and Ecology ES Chapters, such as the monitoring of groundwater levels within an intrusive ground investigation. Appropriate reference to the other technical chapters will be made where applicable.

5. This topic paper summarises the assessment undertaken to date of the potential effects of the Proposed Development on hydrology, particularly on flood risk and surface water. Relevant legislation, policies and guidance have been summarised and an outline of the following is provided: the existing hydrological conditions at the DCO Site; the proposed approach to undertaking the EIA in respect to flood risk and drainage; the likely effects of the proposals on hydrology; the mitigation measures proposed to reduce, offset and address any potential adverse effects anticipated; and further work planned in order to inform our assessment.

6. Consultation with relevant statutory bodies has been undertaken, including meetings with St Helens Lead Local Flood Authority (LLFA) to discuss surface water drainage, and Natural England in conjunction with the project ecologist to discuss Highfield Moss. Wigan LLFA have also been approached with the intent of agreeing a joint approach with both LLFA's. The Environment Agency (EA) provided a response as part of the Scoping Opinion and although there are no flood zones or Main Rivers within the Main Site, they are present downstream. Consultation will be undertaken with Warrington LLFA, although it is noted that minimal works are proposed within their administrative area.

7. This topic paper has been prepared by appropriately qualified, experienced, and competent experts at BWB Consulting Limited (BWB). The Water Environment team at BWB have previous experience with DCO applications, most notably on the applications for the Hinckley NRFI and Oxfordshire SFRI.

8. The author of this topic paper is Sian Renwick MSci (Hons) GradCIWEM, a Flood Risk Consultant with 3 years of industry experience in the UK. This topic paper has been reviewed by Claire Gardner BSc (Hons) MSc MCIWEM C.WEM ACMI fCMgr, who has 16 years of relevant UK experience.

RELEVANT LAW, POLICY AND GUIDANCE

9. The DCO application will be determined pursuant to the Planning Act 2008 and relevant regulations, the National Networks National Policy Statement ('NPSNN', adopted 2024) and the National Planning Policy Framework (NPPF). Relevant local planning policy are material considerations.

10. The following summarises planning and environmental legislation, policies and guidance which are considered relevant to water resources in the context of the Proposed Development, and accordingly will be referenced and consulted in relation to the design and layout and the subsequent effects of the Proposed Development.

Legislation

11. The Water Resources Act (1991)[1] relates to the control of the water environment. The main aspects of the Act which are relevant to the Proposed Development include provisions concerning land drainage, flood mitigation and controlling discharges to watercourses to prevent water pollution. It also outlines the functions and responsibilities of the Environment Agency (EA) in regulating the water environment.

12. The Flood and Water Management Act (2010)[2] gives the EA the strategic overview of management of flood risk in England. It gives upper tier local authorities in England responsibility for preparing and putting in place strategies for managing flood risk from groundwater, surface water and ordinary watercourses in their areas.

13. The Water Environment (Water Framework Directive) (England and Wales) Regulations (2017) transposed the requirements of the Water Framework Directive (WFD)[3] into UK law and has been retained post-Brexit. The Regulations aim to ensure the protection of waterbodies from further deterioration, and that improvements in water quality are made. Eleven River Basin Districts were identified in England and Wales, of which the DCO Site falls within the North West River Basin District. The Regulations include a requirement for surface water bodies to achieve 'good' status with respect to ecology and water chemistry by 2021. Progress is monitored by the EA in its role as the 'competent authority'. The current plan relevant to the DCO Site is the North West River Basin District River Basin Management Plan 2022 - 2027.

National policy and guidance

14. The National Networks National Policy Statement (NPSNN)[4] provides planning guidance for nationally significant infrastructure road, rail and strategic rail freight interchange projects. Paragraphs 5.126 to 5.151 relate to flood risk and Paragraphs 5.252 to 5.268 relate to water quality and resources. The document includes the requirements to: ‘take the impacts of climate change into account’; undertake an appropriate assessment of flood risk, in accordance with the requirements of the National Planning Policy Framework (NPPF) [5] in order to ‘avoid, limit and reduce the risk of flooding to the proposed infrastructure and others’; and assess potential impacts on potential impacts on water quality, water resources,

[1] The Water Resources Act 1991

[2] Flood and Water Management Act (2010)

[3] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

[4] National Networks National Policy Statement (2024)

[5] National Planning Policy Framework (2024)

physical characteristics and waterbodies or protected areas under the WFD Regulations.

15. The NPPF sets out the national policies on different aspects of land use planning, including flood risk. The NPPF sets out a sequential, risk-based approach to the location of development, taking into account all sources of flood risk and the current and future impacts of climate change, so as to avoid, where possible, flood risk to people and property. The NPPF states that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

16. The accompanying Planning Practice Guidance (PPG)[6] sets out the vulnerability and suitability of different land uses to flood risk. It encourages development to be located in areas of lower flood risk where possible and stresses the importance of preventing increases in flood risk to the wider catchment.

17. The SuDS Manual[7] provides guidance on the planning, design, construction and maintenance of Sustainable Drainage Systems (SuDS) to assist with the effective implementation within both new and existing developments.

18. The Design Manual for Roads and Bridges (DMRB) LA 113 Road drainage and the water environment[8] gives guidance on the assessment and management of the impacts that road projects may have on the water environment. These include possible impacts on the quality of water bodies and on the existing hydrology of the catchments through which roads pass. The Standard may also be applied to existing roads, where appropriate.

Local policy and guidance

19. A Preliminary Flood Risk Assessment (PFRA) is an assessment of floods that have taken place in the past and floods that could take place in the future. It generally considers flooding from surface water runoff, groundwater and ordinary watercourses, and is prepared by Lead Local Flood Authorities (LLFAs). The St Helens Borough Council PFRA[9], the Wigan Council PFRA[10] and the Warrington Borough Council PFRA[11] are of relevance to this assessment. The PFRAs seek to assess past and future flood risk and identify areas at significant flood risk.

20. A Local Flood Risk Management Strategy (LFRMS) is prepared by a LLFA to help understand and manage flood risk at a local level. The LFRMS aims to ensure that the knowledge of local flood risk issues is communicated effectively so floods can be better managed. The LFRMS also aims to promote sustainable development and environmental protection. The St Helens

[6] Planning Practice Guidance (2024)

[7] CIRIA C753 The SuDS Manual, B. Woods Ballard, S. Wilson, H. Udale-Clarke, S. Illman, T. Scott, R. Ashley. R. Kellagher (2015)

[8] Design Manual for Roads and Bridges LA 113 Road Drainage and the Water Environment, Highways England (2020)

[9] Preliminary Flood Risk Assessment 2017-2023, St Helens Borough Council (2017)

[10] Wigan Council Preliminary Flood Risk Assessment, JBA Consulting (2011)

[11] Warrington Preliminary Flood Risk Assessment 2017-2023, Warrington Borough Council (2017)

Borough Council LFRMS[12], the Wigan LFRMS[13] and the Warrington LFRMS[14] were written to assist in the understanding and management of flood risk in the respective boroughs.

21. A Strategic Flood Risk Assessment (SFRA) is a study carried out by one or more local planning authorities to assess the risk to an area from flooding from all sources, now and in the future. The following SFRAs are of relevance for the DCO Site: the St Helens Borough Council SFRA[15]; the Liverpool City Region Combined Authority SFRA Part A[16]; the Greater Manchester Level 1 SFRA[17] and Level 2 Hybrid SFRA[18]; and the Warrington Borough Council Level 1 SFRA[19], Level 2 SFRA[20] and SFRA addendum[21].

22. The St Helens Borough Local Plan[22] sets out the vision, objectives and strategic and local policies for development in the Borough up to 2037. The key policy from the Local Plan relevant to water resources and flood risk is Policy LPC12 (Flood Risk and Water Management). This policy sets out requirements for new developments with respect to flood risk, water quality and sustainable drainage systems

23. The Greater Manchester Places for Everyone Plan[23] is a joint development plan encompassing nine of the ten Greater Manchester districts, including Wigan. A key policy of relevance is Policy JP-S4: Flood Risk and the Water Environment. This policy sets out the need for development to be located and designed 'to minimise the impacts of current and future flood risk' as well as expectations for the use of sustainable drainage systems. Policy JP-G4: Lowland Wetlands and Mosslands is also of relevance, due to the Highfield Moss Site of Special Scientific Interest (SSSI) located immediately adjacent to the DCO Site. In particular, it is stated that land adjacent to sensitive wetland habitats should be positively managed in such a way that their hydrology is not adversely affected.

24. Whilst a number of policies from the Wigan Local Plan Core Strategy[24] have been superseded by the Places for Everyone Plan, Policy CP 16 (Flooding) has been retained within the Local

[12] Local Flood Risk Management Strategy 2019-2025, St Helens Council (2020)

[13] Wigan Local Flood Risk Management Strategy, Wigan Council (2018)

[14] Local Flood Risk Management Strategy 2017-2023, Warrington Borough Council (2017)

[15] St Helens Council Strategic Flood Risk Assessment, JBA Consulting (2014)

[16] Liverpool City Region Combined Authority Strategic Flood Risk Assessment Part A, JBA Consulting (2023)

[17] Level 1 Strategic Flood Risk Assessment for Greater Manchester – Update, JBA Consulting (2019)

[18] Greater Manchester Level 2 Hybrid Strategic Flood Risk Assessment, JBA Consulting (2020)

[19] Warrington Borough Council Level 1 Strategic Flood Risk Assessment, JBA Consulting (2018)

[20] Warrington Borough Council Local Plan Site Screening Level 2 Strategic Flood Risk Assessment, JBA Consulting (2019)

[21] Warrington Borough Council Strategic Flood Risk Assessment Addendum, Warrington Borough Council (2021)

[22] St Helens Borough Local Plan up to 2037, St Helens Borough Council (2022)

[23] Places for Everyone Joint Development Plan Document for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan 2022 to 2039, Greater Manchester Combined Authority (2024)

[24] Wigan Local Plan Core Strategy Remaining Policies, Wigan Council (2024)

Plan Core Strategy. This sets out the requirements for development with regards to flood risk and surface water run-off.

25. The Warrington Local Plan 2021/22 to 2038/39[25] was adopted in December 2023 and provides the statutory planning framework for the Borough until 2039. The key policy from the Local Plan relevant to water resources and flood risk is Policy ENV2 - Flood Risk and Water Management. This policy sets out general principles for development with relation to flood risk as well as specific requirements for development proposals.

SITE DESCRIPTION

Site location

26. The DCO Site is located on the eastern extent of Newton-le-Willows in a flat, agricultural landscape. The DCO Site is located within the local authority areas of St Helens Borough Council, within the Liverpool City Region Combined Authority; Wigan Council, within the Greater Manchester Combined Authority; and Warrington Borough Council.

27. The DCO Site is split broadly in two sections:

- the Main Site – land to the east of the M6 motorway, to the south of the Chat Moss Line and to the west of Winwick Lane incorporating the triangular parcel of land located to the west of Parkside Road and to the north of the Chat Moss Line; and
- the Western Rail Chord – land to the west of the M6 motorway, which bisects the DCO Site in a northwest southeast orientation, and to the east of the West Coast Mainline.

28. The majority of the land contained within the Main Site is bound to the north by the Chat Moss Line (Liverpool-Manchester railway line), to the west by the M6 motorway and to the southeast by Winwick Lane (A579). The Main Site south of the Chat Moss Line is approximately 198 hectares in size. The Highfield Moss Site of Special Scientific Interest (SSSI) is also adjacent to the north of the DCO Site, which is described in more detail below. A number of other uses exist at the Main Site currently, including:

- Kenyon Hall Airfield, which is a small airfield used by the Lancashire Aero Club for recreational flying of small propeller planes;
- Warrington Model Flying Club, which is a model club for radio controlled model aircraft; and
- Highfield Farm, which is comprised of two agricultural/residential buildings set within a curtilage surrounded by agricultural fields.

29. The majority of the Main Site is comprised of agricultural fields used for arable crops, with some small patches of woodland in the east. There are also a number of residential properties, farmsteads and a commercial yard within the Main Site. Parkside Road (A573) runs through the DCO Site to the south before passing over the M6 where it provides access to Parkside

[25] Warrington Local Plan 2021/22 to 2038/39, Warrington Borough Council (2023)

Link Road West.

30. The triangular parcel of land located to the north of the Chat Moss Line and to the east of Parkside Road also forms part of the Main Site.

31. The Western Rail Chord of the DCO Site is approximately 12 hectares in size and is bordered to the west by the West Coast Mainline railway, to the north by the Chat Moss Line and to the east by the Parkside West Development. The Western Rail Chord is comprised of safeguarded land for the rail-turn head to enable trains to be serviced to and from the North and the East.

32. The Western Rail Chord is comprised of scrub land and areas of woodland which are set within the context of an area of redevelopment with commercial uses proposed, which is known as Parkside West, and is currently being promoted through the Town and Country Planning Act process.

Baseline environment

Hydrology

33. An unnamed stream flows in a south-easterly direction to the south of the Main Site, beyond the A579. There are no watercourses within the DCO Site itself, although there are ditches present along the northern boundary of the Main Site, adjacent to Highfield Moss SSSI. There are surface water drainage features within the DCO Site, such as attenuation features and swales associated with the Parkside Link Road, and small ponds in the north-east.

34. The majority of the DCO Site is located within Zone 3 (Total Catchment) of a groundwater source protection zone (GSPZ), with a small area in the west of the DCO Site within Zone 2 (Outer Catchment), and is also partially located within a Drinking Water Safeguard Zone for groundwater.

Flood risk

35. The EA's Flood Map for Planning (Figure 1) shows the entirety of the DCO Site to be in Flood Zone 1 (defined as land having a less than 1 in 1,000 annual probability of fluvial or tidal flooding).

36. The EA's Risk of Flooding from Surface Water map (Figure 2) shows various areas of the DCO Site to be at 'low', 'medium' and 'high' risk of surface water flooding. Areas indicated to be at potential risk of surface water flooding generally correlate with the location of existing surface water bodies and topographical low points.

INTERMODAL LOGISTICS PARK (ILP) NORTH

Date:	16-01-2025
Paper size:	A3
Scale:	1:12,500

0 100 200 300 400 500 m

Key:

- Draft Order Limits
- Highfield Moss SSSI
- Main River
- Flood Zone 3
- Flood Zone 2

TRITAX BIG BOX

Figure 1: Environment Agency Flood Map for Planning

APFP Regulation:	N/A
Document Ref:	N/A
Drawing Number:	ILPN-BWB-ZZ-XX-D-W-0001
Drawing Status:	INFORMAL CONSULTATION
Revision:	P02
Drawn by:	S. Renwick
Approved by:	C. Gardner

INTERMODAL LOGISTICS PARK (ILP) NORTH

Date:	16-01-2025
Paper size:	A3
Scale:	1:10,000

0 100 200 300 400 500 m

Key:

- Draft Order Limits
- Highfield Moss SSSI
- 1 in 30-Year (High Risk)
- 1 in 100-Year (Medium Risk)
- 1 in 1000-Year (Low Risk)

TRITAX BIG BOX

Figure 2: Environment Agency Risk of Flooding from Surface Water mapping

APFP Regulation:	N/A
Document Ref:	N/A
Drawing Number:	ILPN-BWB-ZZ-XX-D-W-0002
Drawing Status:	INFORMAL CONSULTATION
Revision:	P02
Drawn by:	S. Renwick
Approved by:	C. Gardner

Surface water

37. The DCO Site is understood to currently not be served by a positive surface water drainage system, with the exception of the Parkside Link Road which has associated surface water drainage features. Rainfall is believed to infiltrate into the ground where geological and hydrogeological conditions allow, and then to runoff at surface level once the infiltration capacity of the ground has been exceeded. Any run-off currently generated will likely be directed to local surface water bodies, and ultimately into the Cockshot Brook, the Newton Brook and associated tributaries.

Water quality

38. The Main Site is within the Spittle Brook catchment, whilst the Western Rail Chord is within the Millingford (Newton) Brook catchment. Both of these catchments have a WFD overall waterbody quality classification of 'moderate', with an ecological status of 'moderate' and a 'fail' chemical status. The catchments both have an objective of achieving 'good' overall and ecological statuses by 2027. It was noted that one reason for the Spittle Brook catchment not achieving 'good' status is poor soil management within the agriculture and rural land management industry.

39. With regards to groundwater, the DCO Site is within the Lower Mersey Basin and North Merseyside Permo-Triassic Sandstone Aquifers catchment. This groundwater catchment has a WFD overall waterbody quality classification of 'poor'. One reason for this waterbody not achieving 'good' status is diffuse pollution from agriculture and rural land management, such as pollution from pesticides.

Foul water

40. The DCO Site is located within United Utilities' sewerage area, although it is not believed to be served by a public foul water drainage system at present. Foul water from existing properties within the DCO Site is believed to be disposed to on-site management / disposal systems.

Potable water supply

41. Potable water is supplied to the area by United Utilities. The EA classifies the United Utilities region as being 'not seriously water stressed', although it is noted that a degree of pressure on water resources may still be present.

Other designations

42. Highfield Moss SSSI is a lowland raised valley mire and is part of the Greater Manchester Wetlands area. The SSSI currently has an 'Unfavourable - Recovering' assessment description, according to Natural England.

DEVELOPMENT DESCRIPTION

43. The Proposed Development is a Strategic Rail Freight Interchange (SRFI) and associated development comprising:

- provision of a rail terminal serving up to 16 trains per day, including ancillary development such as container storage, cranes for the loading and unloading of shipping containers, Heavy Goods Vehicle (HGV) parking, rail control building and staff facilities;
- a rail turn-back facility within the Western Rail Chord;
- up to c.767,000 square metres (m^2) (gross internal area) of warehousing and ancillary buildings with a total footprint of c.590,000m^2 and up to c.177,050m^2 of mezzanine floorspace, subject to ongoing design and market assessment, comprising a mixture of units with the potential to be rail-connected, rail served and additional units;
- new road infrastructure and works to existing road infrastructure;
- provision of overnight lorry parking for users of the SRFI;
- new energy centre and electricity substations, including central battery storage and potential provision of central Combined Heat and Power (CHP) units to augment the grid supply in the case of demand exceeding instantaneous firm and variable supplies;
- provision of photovoltaics and battery storage on site;
- strategic landscaping and open space, including alterations to public rights of way and the creation of new ecological enhancement areas;
- demolition of existing on-site structures (including existing residential dwellings / farmsteads and commercial premises);
- potential relocation of the Huskisson Memorial; and
- earthworks to regrade the DCO Site to provide appropriate access, connections to the railway, development plots and landscape zones.

OUR APPROACH TO THE ASSESSMENT

Assessment area

44. The study area for the Hydrology chapter of the ES will comprise, as a minimum, the DCO Site and the Highfield Moss SSSI. The extents of the study area will be agreed with the relevant consultees.

45. There are potential receptors that exist beyond these limits as well as cumulative impacts which will also be included in the assessment. These include flood risk and drainage pathways between the DCO Site and potential receptors such as the tributary of the Cockshot Brook, the Newton Brook, sewerage system and groundwater

Methodology

46. The significance of potential effects arising from the Proposed Development will be

established through a combination of identifying receptor sensitivity and determining the magnitude of potential effects.

47. The assessment will consider the construction and operation stages of the Proposed Development over its lifetime, i.e. taking account of the potential influence of climate change on the surface water and flood risk receptors under consideration.

48. The Hydrology chapter of the ES will assess the following likely significant effects of the Proposed Development:

- flood risk;
- surface water (quantity and quality);
- foul water (quantity and quality); and
- potable water supply.

49. The Hydrology chapter of the ES will also assess the potential effects of climate change on the Proposed Development and will consider climate change with respect to any recommended mitigation measures.

50. The following outlines the proposed assessment for each likely significant effect.

Flood risk

51. The assessment of flood risk will be undertaken within a standalone Flood Risk Assessment (FRA). This report will assess flood risk from all sources. The findings of the FRA will present an assessment of the flood risk associated with the Proposed Development and likely significant impacts of the Proposed Development on waterbodies.

52. The detailed FRA will be supported by a bespoke hydraulic study of the pluvial (surface water) flood risk. The modelling will confirm the existing flood risk posed from rainfall to the DCO Site, and the effect of the Proposed Development on flood risk on immediate surrounding land, and will determine what measures, if any, will be required to mitigate the risks identified. The modelling study includes assessment of an appropriate allowance for climate change.

53. Any mitigation measures, if required, will also be modelled to determine the impact on flood risk within the DCO Site and on immediate surrounding land.

54. The modelling will use standard approaches and 'industry standard' software and will follow the standard requirements of the EA. Sensitivity testing will be undertaken to test the robustness of the modelling.

Surface water (quantity and quality)

55. The assessment of surface water risk will be undertaken within a standalone Sustainable Drainage Statement. The potential effect of the Proposed Development on the rate and volume of surface water runoff will be determined and an outline surface water drainage

strategy will be prepared to address any adverse impacts. Industry standard calculations will be undertaken to determine pre- and post-development surface water run-off rates from the DCO Site.

56. The potential risk of pollutants being generated as a result of the construction and operation of the Proposed Development will be determined. This will include consideration of potential effects on groundwater quality from the proposed drainage scheme. Potential impacts on water quality will be assessed through a WFD Screening Assessment, in the first instance, and any necessary mitigation measures will be identified.

Foul water (quantity and quality)

57. The assessment of foul water risk will be undertaken within the Sustainable Drainage Statement.

58. Consultation will be sought with United Utilities to identify any potential infrastructure capacity issues. The potential impact of the Proposed Development on available treatment capacity will then be assessed and mitigation measures proposed, if necessary.

59. The standard of available foul water treatment infrastructure will also be confirmed via consultation with United Utilities. The potential impact of the Proposed Development, through discharge of foul water from the DCO Site, will then be identified and mitigation measures outlined, if necessary.

Potable water supply

60. The potential potable water demand as a result of the Proposed Development will be identified. The availability of potable water supply will also be confirmed via consultation with United Utilities and a desktop assessment of available information.

LIKELY MAIN EFFECTS OF THE PROPOSALS

61. The following outlines the potential effects of the Proposed Development on flood risk and drainage, for both the construction and operational phases. The potential effects are outlined below.

Construction

Flood risk

62. The construction phase of the Proposed Development could impede overland flow routes. Construction activities, such as the storage of materials or placement of structures within areas identified to be at risk of flooding, could lead to the temporary or permanent obstruction of surface water flow routes. This could influence the flood risk within the DCO Site and on immediately surrounding land as well as to downstream third party land. The frequency, extent, depth and duration of flood risk could be affected.

Surface water - quantity

63. The construction of the Proposed Development will result in currently undeveloped permeable land being developed, introducing 'hard surfaces' and so increasing the impermeable area. Without appropriate mitigation, this has the potential to increase rates and volumes of surface runoff, increasing the likelihood of downstream adverse effects. For example, this could result in increased flood risk as a result of surcharging waterbodies and sewerage systems downstream.

64. In addition, the construction of the Proposed Development could alter the above and / or below ground hydrological connectivity between the DCO Site and the Highfields Moss SSSI. As a wetland habitat, without appropriate mitigation, changes to its water regime could result in a negative effect on the SSSI.

Surface water - quality

65. The discharge of surface water from the DCO Site has the potential to adversely affect water quality, if unmitigated. There is potential for construction activities to result in the generation of contaminated surface water runoff, which may contain pollutants such as suspended soils, oil and hydrocarbons. This could adversely affect water quality of on-site and downstream waterbodies.

Foul water - quantity

66. Whilst significant volumes of foul water are unlikely to be generated during the construction phase, with any welfare facilities likely to be of a temporary nature, there will still be some foul water generated during this period. This may cause capacity issues in the local sewerage and sewage treatment infrastructure.

Foul water - quality

67. Foul water discharges could adversely affect water quality in receiving waterbodies if not appropriately treated. The absence and/or inadequacy of appropriate foul water conveyance and treatment infrastructure could result in the discharge of untreated or poorly treated foul water generated at the DCO Site. This could adversely affect water quality in on-site and downstream water bodies, and within the catchment of the receiving Sewage Treatment Works to which the DCO Site will discharge.

Potable water supply

68. The Proposed Development will involve the use and consumption of potable water during construction. This has the potential to adversely affect water resource availability within the region. Potable water uses during the construction phase may include welfare facilities, construction activities (e.g. mortar silos, concrete mixing and internal wet trades etc.) and cleaning operations (e.g. wheel wash and road sweepers etc.).

Operation

Flood risk

69. The operation phase of the Proposed Development could impede overland flow routes through the permanent obstruction of surface water flow routes. This could influence the flood risk within the DCO Site and on immediately surrounding land as well as to downstream third party land. The frequency, extent, depth and duration of flood risk could be affected.

Surface water - quantity

70. The Proposed Development will introduce 'hard surfaces' and roof areas to the DCO Site. Without appropriate mitigation, this has the potential to increase rates and volumes of surface runoff, increasing the likelihood of downstream adverse effects. For example, this could result in increased flood risk as a result of surcharging downstream waterbodies and sewerage systems.

71. In addition, the Proposed Development could alter the hydrological connectivity between the DCO Site and the Highfields Moss SSSI. As a wetland habitat, without appropriate mitigation, changes to its water regime could result in a negative effect on the SSSI.

Surface water - quality

72. The discharge of additional surface water from the DCO Site has the potential to adversely affect water quality, if unmitigated. Operational activities could result in contaminated surface water runoff, which may contain pollutants such as suspended soils, oil and hydrocarbons. There is also potential for effects on surface waterbodies from the potential discharge of firewater foam associated with the proposed battery storage and for effects on groundwater bodies from the proposed drainage scheme. Discharges from the DCO Site could therefore adversely affect the water quality of on-site and downstream waterbodies, including groundwater bodies.

Foul water - quantity

73. Foul flow loads on the local area will be increased because of the Proposed Development, which may potentially cause capacity issues in the local sewerage and sewage treatment infrastructure.

Foul water - quality

74. Foul water discharges could adversely affect water quality in receiving waterbodies if not appropriately treated. The absence and/or inadequacy of appropriate foul water conveyance and treatment infrastructure could result in the discharge of untreated / poorly treated foul water generated at the DCO Site. This could adversely affect water quality in on-site and downstream water bodies, and within the catchment of the receiving Sewage Treatment Works to which the DCO Site will discharge.

Potable water supply

75. The Proposed Development will involve the use and consumption of potable water during operation. This has the potential to adversely affect water resource availability within the region. Potable water uses during the operational phase may include welfare facilities and operational activities.

PROPOSED APPROACH TO MITIGATION

76. The Proposed Development will include a range of 'embedded' measures designed to reduce or prevent significant adverse environmental effects arising. In some cases, these measures may result in enhancement of current environmental conditions or help alleviate existing issues. These measures will be refined further through the EIA process and in response to consultation but are expected to include:

- a Construction Environmental Management Plan (CEMP), which will be developed in accordance with Guidance for Pollution Prevention 5: works or maintenance in or near water (GPP 5) and will include measures to avoid pollution from concrete use, silt and oil, and chemicals;
- an outline surface water drainage strategy, which will be prepared to provide further details on the measures to manage surface water for the Proposed Development; and
- an outline foul water drainage strategy, which will be developed in line with current best practice and subject to consultation with United Utilities.

77. Any additional mitigation to prevent, reduce or offset any likely effects that cannot be avoided through design will be identified through the EIA process.

NEXT STEPS

78. Further work is programmed to advise the ongoing design and mitigation of the Proposed Development with regards to water resources – this will be an iterative process, whereby flood risk and surface water considerations will have an influence on the proposed layout of the built development. This further work includes a WFD Screening Assessment and hydraulic modelling of the surface water flow routes within the DCO Site.

79. Once the Parameter Plan and drainage strategy for the Proposed Development near completion, the Flood Risk Assessment and Sustainable Drainage Statement will be progressed and finalised. Consultation with statutory and non-statutory consultees, including the Environment Agency, Lead Local Flood Authorities and United Utilities, will continue to assist in the preparation of the Environmental Impact Assessment. Further consultation will be undertaken with the Lead Local Flood Authorities at St Helens Borough Council, Wigan Council and Warrington Borough Council as the hydraulic modelling and surface water drainage strategy are progressed. In addition, consultation with Natural England, in liaison with the project Ecologist, will be undertaken to understand the potential implications of the Proposed Development on Highfields Moss SSSI with regards to hydrology. Feedback from consultation will inform future work.

80. This topic paper forms part of the material available for the informal consultation that is taking place between 27 January 2025 and 21 March 2025. Should you wish to comment on this paper or any other matters related to the Proposed Development you can respond to the informal consultation via:

- ILP North website – *www.tritaxbigbox.co.uk/our-spaces/intermodal-logistics-park-north*
- Email *ilpnorth@consultationonline.co.uk*
- Freepost ILP North
- 01744 802043