2. EIA METHODOLOGY

Introduction

2.1 This chapter explains the EIA methodology and describes the ES structure and content. It details the process of identifying and assessing the likely significant environmental effects of the Development. The ES has been prepared in accordance with the EIA Regulations and reference has also been made to currently available good practice guidance on EIA including the Planning Practice Guidanceⁱ.

Scoping

- 2.2 Scoping is an important tool for identifying the likely significant effects of a proposed development through its design, construction and completed phases and ensures that appropriate mitigation options are considered where necessary. A Scoping Opinion Report (Appendix 2.1) was submitted to LCC on 2nd February 2022 in support of a formal request for a Scoping Opinion. The Scoping Report identified the topics to be scoped into and out of the ES and for those assessments to be included, details of the scope and methodology of the assessments. The topics proposed to be scoped into the ES comprised:
 - Socio-Economics;
 - Landscape and Views;
 - Built Heritage;
 - Transport and Access;
 - Noise; and
 - · Air Quality.
- 2.3 The Scoping Report proposed that the following topics could be scoped out of the ES:
 - Biodiversity;
 - Water Resources and Flood Risk;
 - Land Contamination;
 - Minerals;
 - Human Health;
 - Archaeology;
 - Wind Microclimate;
 - Daylight, Sunlight and Overshadowing;
 - Agricultural Land;

- Waste;
- · Accidents and Disasters; and
- Climate Change.
- 2.4 LCC adopted an EIA Scoping Opinion on the 16th March 2022, attached at Appendix 2.2. The Scoping Opinion agreed with the topics to be scoped into the ES but did not agree to the scoping out of a Biodiversity assessment, therefore this topic has been included in the ES. Table 2.1 below sets out how the key issues raised in the adopted EIA Scoping Opinions have been addressed and the location where they are addressed in the ES.

Table 2.1 Issues raised in the EIA Scoping Process

Issue Raised in the Adopted EIA Scoping Opinion	Response	ES Chapter addressed
Lancashire County Council's Ecology service request for an Ecology and Biodiversity ES Chapter (Appendix 2.1).	An Ecology and Biodiversity ES Chapter has been provided as part of the ES.	ES Chapter 12 Ecology.
Lancashire County Council identified that the potential impacts of the Lydiate Lane Quarry should be included as part of the cumulative assessment (Appendix 2.1).	The impact of the Development when combined with the Lydiate Lane Quarry to the south of the Site has been considered through the ES.	ES Chapters 6-12.
Lancashire County Council state that the Socio-Economic impacts of the Development do not need to be included throughout the ES (Appendix 2.1).	As an ES should cover both the adverse and beneficial impacts of the Development, the potential beneficial impacts of the Development in terms of Socio-Economics have be covered in the Socio-Economics ES Chapter.	ES Chapter 6 Socio-Economics.

Public Consultation

- 2.5 The planning application is the culmination of an extensive design process which has involved consultation with LCC, statutory consultees, the local community and other stakeholders. An information leaflet with a tear-off, freepost feedback form was distributed to 10,726 households and detailed the Development and provided contact details should the recipient have any questions or queries. Additionally, a consultation website was launched (www.lancashirecentral.co.uk) to enable people to view the proposals and provide feedback. The website included all the media releases and correspondence with neighbours and stakeholders.
- 2.6 On the 4th April 2022, letters were issued to the closest neighbouring residents to the Development informing them of the Development and inviting them to take part in the consultation. Neighbours on Stanifield Lane, Old School Lane, Stoney Lane, Woodcock Estate, Lydiate Lane, Fowler Lane and Fowler Avenue were contacted. On 11th May 2022, a further

letter was issued to the closest neighbouring residents on Stanifield Lane, Stoney Lane and Old School Lane enclosing an information leaflet and offering the opportunity to arrange a meeting with the development team.

- 2.7 A Statement of Community Involvement setting out the full background to the consultation undertaken as part of the Development has been submitted as part of this planning application.
- 2.8 In addition, consultation has also been undertaken with relevant statutory consultees including:
 - National Highways;
 - Environment Agency;
 - Natural England;
 - Historic England;
 - LCC; and
 - South Ribble Borough Council.

Approach to Technical Studies

- 2.9 The EIA studies commenced at an early stage in the development process and have been updated as the Development has progressed. The findings of these baseline environmental studies have played an important role in defining the environmental sensitivities, constraints and opportunities associated with the Site.
- 2.10 The planning application is in outline, therefore the Development has been defined by a set of Parameter Plans which define the outer limits or development parameters within which future reserved matters applications can be delivered. To comply with the 2017 EIA Regulations for the type of Development proposed, each technical chapter of the ES (Chapters 6 12) has tested a development envelopeⁱⁱ by assessing clearly defined maximum and minimum parameters. The minimum and maximum parameters that define the outline development envelope include:
 - Maximum vertical limits of Built Development Zones;
 - The development zones;
 - The location of the vehicular, pedestrian and cycle routes;
 - Masterplan and illustrative masterplan;
 - Land use and quantum; and
 - Strategic and landscape parameters plan.

2.11 The ES has assessed the Development in terms of the likely significant effects of a worst-case assessment, to ensure that any future reserved matters applications coming forward are consistent with the Parameter Plans and would not lead to greater effects on the environment than that which have been assessed at this stage.

Structure of Technical Chapters

2.12 Each technical chapter of the ES (Chapters 6-12) has been set out broadly in line with Table 2.2 below.

Table 2.2: Structure of the Technical Chapters

Heading	Content
Introduction	Each of the technical chapters begins with an introduction providing context to the EIA completed.
Policy Context	This section includes a summary of policies of relevance to the environmental discipline and explains its purpose in the context of the Development and the ES.
Assessment Methodology	This section describes the method and approach employed in the assessment of likely significant effects, the criteria against which the significance has been evaluated, the sources of information used and any technical difficulties encountered. Relevant legislation is also identified.
Baseline Conditions	This section describes and evaluates the baseline environmental conditions i.e. the current situation and anticipated changes over time assuming the Site remains undeveloped.
Likely Significant Effects	This section identifies the likely significant effects on the environment resulting from the Development during construction and operational phases. A description of the likely significant effects of the Development and an assessment of their predicted significance is provided.
Mitigation Measures	This section describes the measures which would be implemented to mitigate against potential adverse impacts. Where possible, enhancement measures have also been proposed.
Residual Effects	The residual effects, i.e. the remaining effects of the Development assuming implementation of the proposed mitigation measures, have been estimated and presented.
Cumulative Effects	This section considers the cumulative effects of the Development with committed developments identified within the vicinity of the Site. Any likely significant effects on the environment arising in this respect are set out in this section.
Summary	Each technical chapter concludes with a brief summary outlining the potential residual effects for the construction phase (short/medium) and operation (medium/long-term) phase of the Development.

^{*}An assessment of the potential for interactive effects is set out in Chapter 13 Summary of Residual Effects.

Likely Significant Effects

2.13 The assessment of impact significance has been undertaken using appropriate national and international quality standards. Where no such standards exist, the judgments that underpin the attribution of significance are described. The guidelines, methods and techniques used in the process of determining significance of effects are contained within each of the technical chapters presented.

- 2.14 It is broadly accepted that significance reflects the relationship between two factors:
 - The actual change taking place to the environment (i.e. the magnitude or severity of an effect); and
 - The sensitivity, importance or value of the affected resource or receptor.

Magnitude

2.15 The methodology for determining the scale, or magnitude, of effect is set out in Table 2.3 below.

Table 2.3: Methodology for Assessing Magnitude

Magnitude of Impact	Criteria for Assessing Effect
Major	Total loss or major/substantial alteration to key elements/features of the baseline conditions such that the post development character/composition/attributes will be fundamentally changed.
Moderate	Loss or alteration to one or more key elements/features of the baseline conditions such that post development character/composition/attributes of the baseline will be materially changed.
Minor	A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible/detectable but not material. The underlying character / composition / attributes of the baseline condition will be similar to the pre-development circumstances/situation.
Negligible	Very little change from baseline conditions. Change barely distinguishable, approximating to a 'no change' situation.

Sensitivity

2.16 The sensitivity of a receptor is based on the relative importance of the receptor using the scale in Table 2.4 below.

Table 2.4: Methodology for Assessing Sensitivity

Sensitivity	Examples of Receptor
High	The receptor/resource has little ability to absorb change without fundamentally altering its present character, or is of international or national importance.
Moderate	The receptor/resource has moderate capacity to absorb change without significantly altering its present character, or is of high importance.
Low	The receptor/resource is tolerant of change without detriment to its character, is of low or local importance.

Significance

2.17 The significance of an environmental effect is determined by the interaction of magnitude and sensitivity, whereby the impacts can be beneficial or adverse. Table 2.5 below shows how magnitude and sensitivity interact to derive effect significance.

Magnitude	Sensitivity			
	High	Moderate	Low	
Major	Major Adverse/Beneficial	Major - Moderate Adverse/Beneficial	Moderate - Minor Adverse/Beneficial	
Moderate	Major - Moderate Adverse/Beneficial	Moderate - Minor Adverse/Beneficial	Minor Adverse/Beneficial	
Minor	Moderate - Minor Adverse/Beneficial	Minor Adverse/Beneficial	Minor Adverse/Beneficial - Negligible	
Negligible	Negligible	Negligible	Negligible	

Table 2.5: Methodology for Assessing Significance

2.18 The above magnitude and significance criteria have been provided as a guide for technical specialists to assess impact significance. Where discipline specific methodology has been applied that differs from the generic criteria above, this has been clearly explained within the given chapter under the heading of Assessment Methodology.

Mitigation

- 2.19 Any adverse environmental effects have been considered for mitigation at the design stage and, where practicable, specific measures have been put forward. Measures have been considered based on the following hierarchy of mitigation:
 - Avoidance;
 - · Reduction;
 - · Compensation;
 - · Remediation; and
 - Enhancement.
- 2.20 Where the effectiveness of the mitigation proposed has been considered uncertain, or where it depends upon assumptions of operating procedures, data and/or professional judgement has been introduced to support these assumptions.
- 2.21 Mitigation recommended during the construction phase would be set out in the Construction Environmental Management Plan (CEMP) to be agreed with LCC prior to the commencement of work and implemented throughout the duration of the works. Outline mitigation measures to be included in a future CEMP are set out in Chapter 5 (Construction Methodology and Phasing).
- 2.22 Mitigation to be implemented during the construction and operational phases would be secured through planning conditions and obligations.

Cumulative Effects

2.23 A requirement of the EIA Regulations is to assess cumulative effects. Cumulative effects are generally considered to arise from the combination of effects from the Development and from other proposed or permitted schemes in the vicinity, acting together to generate elevated levels of effects. The assessment has been informed by Planning Practice Guidance¹, specifically the section: 'When should cumulative effects be assessed?' which states:

"Each application ... should be considered on its own merits. There are occasions, however, when other existing or approved development may be relevant in determining whether significant effects are likely as a consequence of a proposed development. The local planning authorities should always have regard to the possible cumulative effects arising from any existing or approved development."

2.24 The schemes that have been included as part of the cumulative effects assessment are those set out in Table 2.6. These have been agreed with LCC during the EIA Scoping process (Appendix 2.1). The locations of the below schemes are shown on Figure 2.1.

Table 2.6: Cumulative Schemes

Scheme Name and Application Number	Description	Planning Status	Approximat e distance from the Site
Pickerings Farm Site Flag Lane Penwortham Lancashire PR1 9TP Ref. 07/2018/8539/SCO		Scoping 13/10/2018	1.7km north west
Test Track Aston Way Moss Side Industrial Estate Leyland Lancashire PR26 7TZ Ref. 07/2017/2375/SCO	Residential Development a maximum of 950 units, employment on 6.08 hectares of land, a local centre comprising the following uses classes A1, A2, A3, A4, A5 B1 and D1 and including a medical centre, a primary school, a Sustainable Drainage System, and off-site highway infrastructure.		2.5km south west
Penwortham Mills Factory Lane Penwortham Preston Lancashire PR1 9SN Ref. 07/2020/00380/SCO	Scoping Request to determine the scope of an Environmental Impact Assessment for a residential-led mixed-use development		2.6km north west
Leyland Test Track 07/2017/3361/ORM	Hybrid planning application comprising of Full and Outline development - Environmental Impact Assessment (EIA) development Part A FULL - Site enabling works, the development of highway and drainage infrastructure for the full application site (the proposed	with conditions	3.5km south west

¹ Paragraph: 024 Reference ID: 4-024-20170728, Revision date: 28/07/2017

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Scheme Name and Application Number	Description	Planning Status	Approximat e distance from the Site
	development site) and the provision of car park accessed off Titan Way (Phase 1); together with the construction of 197 dwellings and associated internal access roads, public open space, green infrastructure, an acoustic barrier and highway infrastructure (Phase 2) Part B OUTLINE - for the remainder of the proposed development site for the development of between 653 and 753 new homes, up to 5,000 sqm of Business Park (Use Classes B1); up to 15,000 sqm of Use Class B2 and up to 8,000 sqm Industrial Estate (Use Class B8), local centre comprising up to 3,000 sqm of accommodation for occupation within any combination of uses within Classes A1,A2,A3, A4,A5,B1 or D1 (including health centre/clinic) (which shall not exceed 2,500 sqm of main town centre uses), a primary school (1.646ha) and associated public open space and green infrastructure (Phases 3-5 and education, employment and local centre phases) (Amended Plans)		
Land West of Lancashire Business Park 07/2020/00781/OUT	reserved apart from access from the public highway) for up to 612,500sqft (56,904sqm) of light industrial (E(g) Use), general industrial (B2 Use), storage and distribution (B8 Use) and ancillary office (E(g) Use) floorspace	Approval with conditions 28/05/2020	1.5km west
Former New Mill site Land off Wesley Street, Bamber Bridge 07/2012/0728/OUT	Development (max 200 dwellings) with	Approval with conditions 04/08/2014	1km north east
Land Formerly Gas Works, Leyland Road, Lostock Hall 07/2013/0008/ ORM	redevelopment of the site (12.1HA) for	Approval with conditions 01/04/2014	2.3km north west
Vernon Carus, Penwortham 07/2014/0190/ORM	Outline application for the erection of approximately 385 dwellings. This is hybrid application which includes two parts -	Approval with conditions 22/12/2015	2.0km north west

Scheme Name and Application Number	Description	Planning Status	Approximat e distance from the Site
Land to the rear of 2 Leyland Lane 454 Croston Road 07/2012/0627/ORM	Outline application for Residential Development (Access applied for) (Land to the rear of 2 Leyland Lane - 420 Croston Road and to the north of Heatherleigh)	Approval with conditions 30/08/2013	2.1km south west
North of Altcar Lane 07/2016/0591/OUT	Outline planning application for residential development for up to 400 dwellings (access applied for)	Approval with conditions 21/09/2017	3.8km south west
Lydiate Quarry Lydiate Lane Leyland Preston Lancashire PR25 4UB 07/2006/0672/CM	Variation of conditions 4, 10, 16, 25 and 30 of permission 07/1991/0648 (as amended) to provide for - The cessation of mining and land filling operations no later than 2nd August 2021 and progressive restoration of the site within a further period of 12 months - The cessation of sand extraction in any further phase until imported waste is physically deposited in the preceding phase, commencing with phase 3, for the purpose of restoring it. - The erection of a 4.0m high screen mound along the entire southern boundary of phase 6, in place of the close boarded fence originally required by the condition. - Skip carrying vehicles to enter the site to deposit engineering materials for the construction of on-site roads and to remove wastes from the site The construction of the mini-roundabout at the junction of Lydiate Lane and Stanifield Lane within 3 months of the date of granting of a certificate of pollution prevention and control permitting the importation of waste to the site.	Part objection / part no objection 30/10/2006	Adjacent to the southern boundary
Woodcocks Farm 10/00414/OUTMAJ	Outline application for residential development of up to 300 dwellings (comprising 2, 2.5, & 3 storeys) with details of access and highway works and indicative proposals for open space, landscape and associated works.	outline planning permission	1.4km south
Land North of Lancaster Lane 12/00941/OUTMAJ	development of land to the east of Wigan Road for the erection of up to 160 dwellings and associated open space with all matters reserved, save for access.	Permitted outline planning permission 06/11/2012	1.2km south
Land adjoining Cuerden residential Park 12/00872/FULMAJ	Planning application for 52 style park homes for older persons (over 55) and associated development including replacement community building, bowling green, allotments, pavilion, equipment store, activity trail, balancing ponds, access arrangement, internal roads, footpaths and landscaping	Granted 20/08/2013	700m south

2.25 Each technical chapter (Chapters 6-12) has assessed the potential for likely significant effects on the environment as a result of the above committed developments as well as the 'Future

Development Plot Boundary'. This land refers to the remainder of the allocation and whilst not coming forward within this planning application or any currently submitted application it is considered reasonably foreseeable. The quantum of development assessed for the Future Development Plot Boundary comprises the remainder of the Allocation not included within this Development.

Residual Effects

2.26 The likely significant effects on the environment, assuming the successful implementation of mitigation measures proposed, have been identified within each chapter.

Assumptions and Limitations

- 2.27 The principal assumptions that have been made and any limitations that have been identified in preparing the ES are set out in each technical chapter. General assumptions include the following:
 - Assessments assume the baseline conditions at the time of ES preparation (2022) unless otherwise stated in the technical chapter;
 - It is assumed that current surrounding land uses do not change, with the exception of the identified committed and reasonably foreseeable developments;
 - Assessments are based on published sources of information and primary data collection.
 Sources are provided as necessary;
 - Assessments are based on the description of development set out in Chapter 3 (Site and Development Description) and the anticipated construction methodology and programme described in Chapter 5 (Construction Methodology and Phasing);
 - Assessments conclude the "worst case" effects that would arise from the Development as defined by the parameters described in Chapter 3 (Site and Development Description);
 - Necessary off-site services infrastructure for the Development will be provided by statutory undertakers; and
 - The planning permission, when granted, will contain conditions that will be sufficient to limit the Development to that assessed in this ES.

Objectivity

2.28 The technical studies undertaken within the ES have been progressed in a transparent, impartial and unbiased way with equal weight attached, as appropriate, to beneficial and adverse effects. Where possible, this has been based upon quantitative and accepted criteria

together with the use of value judgments and expert interpretations.

2.29 The assessment has been explicit in recognising areas of limitation within the ES and any difficulties that have been encountered, including assumptions upon which the assessments are based. Where appropriate, the assessment of significance has been given confidence levels to give a judgement to the likelihood of an effect occurring.

REFERENCES

ⁱ https://www.gov.uk/guidance/environmental-impact-assessment, Department for Levelling Up, Housing and Communities

ii based on the cases R v Rochdale MBC ex parte Tew [1999] 3 PLR 74 and R v Rochdale MBC ex parte Milne [2001 81PCR27]