2. Approach to EIA

Introduction

- 2.1 This Chapter sets out the approach and methodology that has been undertaken to complete the assessment of the likely significant environmental effects of the Proposed Scheme (as described in **Chapter 4: The Proposed Scheme** and supporting plans).
- 2.2 This Chapter sets out the following:
 - Adoption and application of best practice within the EIA process;
 - Scope of the ES, including a summary of the EIA Scoping process and the technical disciplines scoped in and out of the ES;
 - Stakeholder engagement, summarising the level of engagement with statutory and non-statutory consultees, public consultation events and other forms of engagement; and
 - Approach to the assessment of likely significant effects, specifically covering: approach to baseline; future baseline; identification of sensitive receptors; information to inform assessment; use of tolerances; implementation of mitigation; significance criteria; and limitations/assumptions.

Adoption of Best Practice

- 2.3 As confirmed within **Chapter 1: Introduction**, this ES meets the requirements set out in Regulation 18, Paragraphs 3 4 and Schedule 4 of the EIA Regulations.
- 2.4 In addition, the EIA (and therefore the ES) has been undertaken with due consideration of the following guidance documents:
 - Ministry of Housing, Communities & Local Government, Planning Practice Guidance¹;
 - IEMA, EIA Guide to Shaping Quality Development²; and
 - IEMA, EIA Guide to Delivering Quality Development³.

Scope of the ES

EIA Scoping

- 2.5 A request for an EIA Scoping Opinion, together with an EIA Scoping Report (**Appendix 2.1**), prepared in line with Regulation 15, of the EIA Regulations was submitted to LCC in January 2020.
- 2.6 In response, LCC provided an EIA Scoping Opinion in February 2020 (**Appendix 2.2**), supported by technical responses from consultees (both statutory and non-statutory) and other interested parties. This response broadly confirmed that LCC were in agreement with the scope of the ES, as set out within the EIA Scoping Report.

- 2.7 Where additional information or clarification was requested as part of the EIA Scoping, Table2.1 summarises the comments received and how these have been addressed within the ES.Full details of all comments received can be found in Appendix 2.2.
- 2.8 The scope of Approved Projects for cumulative assessment was also confirmed through the Scoping process with separate consultation with LCC; the full list of Approved Projects can be found in **Chapter 13: Assessment of Cumulative Effects**.
- 2.9 Whilst the EIA Scoping Report sought to establish the overall framework for the ES in relation to the environmental topics and likely significant effects, the Proposed Scheme and the strategies that underpin it have been refined or informed by further technical studies, modelling and analysis works and engagement with consultees.
- 2.10 As a result, whilst the ES is based on the EIA Scoping Opinion, where the scope of the assessment proposed within the EIA Scoping Report has altered or amended, this has been clearly identified within the Scope of Assessment section of **Technical Chapters 6 12**.

Table 2.1:	Summary of EIA Scoping Opinion Comments
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Summary of Scoping Comment	Consultee	How / Where the Comment Has Been Addressed
"We do not agree with the conclusion that 'There are no townscape environmental designations covering the Site or immediate context, therefore effects on environmental designations are unlikely to be considered significant and will not be considered within the EIA or reported in the ES.' (Scoping Report, Para 7.6, Townscape effects on environmental designations during construction and operational phases) Effects on the listed historic landscapes of Stanley Park and Anfield Cemetery need to be considered within the Townscape and Visual Assessment (Table 7.1) within the ES. Likely significant effects need to be included, with consideration of mitigation measures that may be possible, such as through materials and design (accepting that such measures would not mitigate for the impact of the scale and massing of the structure)."	LCC Conservation Officer	 Chapter 7: Townscape and Visual provides an assessment of townscape and visual effects on the listed historic landscape of Stanley Park and Anfield Cemetery. Effects on historic setting of these features is considered in Chapter 8 Built Heritage.
"We have reviewed the viewpoints for the TVIA with the landscape architect (Gillian Webb, Planit IE) and agreed that the View from Walton Hall Park, North of Walton Hall Avenue is to be included in the assessment (Scoping Report, Para 7.9, Visual Effects from local viewpoints during construction and operational phases)."	LCC Conservation Officer	Chapter 7: Townscape and Visual includes the additional viewpoint in the assessment.

Technical Disciplines Scoped In

- 2.11 Following the EIA Scoping exercise, the following technical disciplines and their associated likely significant environmental effects have been taken forward and assessed within the ES:
 - Socio-Economic and Human Health (**Chapter 6**);
 - Townscape and Visual (Chapter 7);
 - Built Heritage (Chapter 8)
 - Biodiversity (Chapter 9)

- Transport (Chapter 10)
- Noise and Vibration (Chapter 11); and
- Climatic Effects (Wind and Microclimate) (Chapter 12).
- 2.12 The likely significant environmental effects considered within each technical discipline are detailed within the relevant technical chapters (**Chapters 6 12**).

Technical Disciplines Scoped Out

- 2.13 As part of the EIA process, there are several environmental technical topics and their associated environment effects which are not considered to be significant and therefore 'scoped out' of the EIA. These are as follows:
 - Air Quality;
 - Climate Change and Greenhouse Gases;
 - Water Resources, Flood Risk and Drainage;
 - Ground Contamination;

- Risk of Major Accidents and Disasters;
- Waste;
- Daylight, Sunlight and Overshadowing; and
- Obtrusive Light.

- Archaeology;
- 2.14 The evidence base to support 'scoping out' these technical topics is presented in the EIA Scoping Report (**Appendix 2.1**) and has been agreed as part of the EIA Scoping Opinion (**Appendix 2.2**).

Stakeholder Engagement

In addition to the consultation undertaken to inform LCC's EIA Scoping Opinion (Appendix 2.2), the Project Team have undertaken technical consultation with relevant consultees to inform the scope, assessment methodology/approach and in some instances the outputs of baseline studies/surveys. The specifics of technical consultation are reported within Technical Chapters 6 – 12.

Approach to Assessment of Likely Significant Environmental Effects

2.16 This section outlines the approach to the assessment of likely significant environment effects adopted, as reported within this ES. This includes details on baseline conditions, future baseline, identification of sensitive receptors, information to inform assessment, the use of

tolerances, implementation of mitigation, significance criteria and limitations and assumptions.

2.17 The exact methodology for the assessment of likely significant effects of the Proposed Scheme during demolition and construction and operational phases is varied across each of the technical disciplines considered within the EIA, largely due to technical specific guidance and best practice. Therefore, each of the **Technical Chapters 6 – 12** specifically sets out the relevant technical assessment methodologies.

Baseline Conditions

- 2.18 The boundary upon which baseline data has been collected (i.e. study area) varies between the technical topics and therefore are reported specifically within Technical Chapters 6 12. However, all study areas include the Site, as defined in the Application Boundary and Construction Area shown on Figure 1.1.
- 2.19 Schedule 4, Paragraph 3 of the EIA Regulations, states that an ES should include:

"a description of the relevant aspects of the current state of the environment (baseline scenario)"

- 2.20 Likely significant effects as a result of the Proposed Scheme has been described in the ES in relation to the deviation from the baseline environment within the Site and relevant technical study areas. Therefore, it is necessary to establish the existing baseline environmental condition of the Site and study area.
- 2.21 The baseline environment comprises the prevailing existing environmental characteristics and conditions of the Site and relevant technical study areas, based upon:
 - Site visits and surveys;
 - Desk-based studies;
 - Review of existing site-specific information or public literature;
 - Modelling;
 - Review of relevant national and local planning policies; and
 - Consultation with the relevant statutory consultees through the EIA process.
- 2.22 The baseline conditions for the purpose of the ES will vary dependent on the timing of the survey or the date when data sources will have been accessed. All baseline conditions are based upon data accessed or surveys completed between 2018 and 2020.
- 2.23 Some data obtained from third parties may be older; however, this is largely associated with below ground data which is not anticipated to have significantly changed and therefore still remains relevant.
- 2.24 Throughout the EIA, the origin of all third party data, the dates of surveys and the dates when data sources have been accessed are clearly outlined within the relevant **Technical** Chapters 6 12, alongside any limitations or assumptions.

Future Baseline

2.25 Schedule 4, Paragraph 3 of the EIA Regulations states that an ES should include:

'...an outline of the likely evolution thereof (without implementation of the development) as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of availability of environmental information and scientific knowledge'

- 2.26 As required under the EIA Regulations the ES reports the future baseline scenario under a 'do nothing' scenario, as further discussed in **Chapter 5: Consideration of Alternatives**. However, the future baseline scenario is discussed within each of the **Technical Chapters 6 12**. The discussion is associated with how the Site and study area may change assuming the Site was not developed further and the existing management regime was maintained.
- 2.27 The assessments presented in the ES are based on the deviation from the existing baseline scenario. In some cases, where helpful to the overall assessment, a future baseline condition is also presented.

Identification of Sensitive Receptors

2.28 Schedule 4, Paragraph 4 of the EIA Regulations states that an ES should include:

'a description of the factors specified in Regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora); land (for example land-take), soil, (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaption), material assets, cultural heritage, including architectural and archaeological aspects, and landscape'

2.29 Consistent with the EIA Regulations, the identification of the aspects of the environment likely to be significantly affected by the Proposed Scheme has been identified and set out within **Technical Chapters 6 – 12**).

Information to Inform Assessment

- 2.30 As indicated in **Chapter 1: Introduction**, the Application is detailed in nature.
- 2.31 The Application is required to provide sufficient information about the design, size and scale of the Proposed Scheme, such that LCC can reasonably be satisfied that they have sufficient information to decide that they have full knowledge of the likely significant environmental effects of the Proposed Scheme. As such, the assessments within the EIA and presented in the ES have been based on the **Detailed Plan(s)** to be implemented as part of the Proposed Scheme and information set out within **Chapter 4: The Proposed Scheme**.
- 2.32 The scale and location of development are shown and defined on **Figure 1.1**, along with the detailed plans described in **Chapter 4: The Proposed Scheme**. These (including any necessary technical study areas) have been used to asses likely significant environmental effects for the following disciplines:
 - Chapter 6: Socio-Economic and Human Health;
 - Chapter 7: Townscape and Visual;

- Chapter 8: Built Heritage;
- Chapter 9: Biodiversity;
- Chapter 10: Transport;

• Chapter 11: Noise and Vibration; and

• Chapter 12: Climatic Effects (Wind Microclimate).

Assessment Scenarios

2.33 As set out in Chapter 4: The Proposed Scheme, construction timescales have not been confirmed at this time and will be influenced by a number of considerations. In order to establish a position for the purposes of assessment work within the ES, the earliest construction timescales have been used, which would be a start date of 2021. The anticipated construction period is up to two years, which would mean the earliest the Proposed Scheme could become operational is 2023. The assessments within Technical Chapters 6 – 12 have therefore considered the construction and operational phase of the Proposed Scheme in line with these dates.

Implementation of Mitigation

2.34 Schedule 4, Paragraph 7 of the EIA Regulations states that an ES should include:

'a description of the measures to avoid, prevent, reduce, or if possible offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover construction and operational phases.'

- 2.35 In accordance with IEMA Guidance and the EIA Scoping Report (**Appendix 2.1**), three types of mitigation have been identified and used within the ES, comprising;
 - **Primary** modifications to the location or design of the Proposed Scheme made during the pre-application stage that are in inherent part of the project;
 - **Tertiary** actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislative requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects.
 - **Secondary** actions that will require further activity in order to achieve the anticipated outcome; and
- 2.36 The design process has been informed by extensive studies/surveys/modelling so that potential effects are well understood and primary mitigation has been identified and developed. The Proposed Scheme has evolved to take account of the environmental constraints and opportunities within the Site and study area.
- 2.37 Such evolution, as defined above, constitutes primary mitigation and therefore for the purpose of the EIA such measures are considered as part of the Proposed Scheme and therefore set out in **Chapter 4: The Proposed Scheme**.
- 2.38 Those measures considered to constitute tertiary mitigation are also considered part of the Proposed Scheme and set out in **Chapter 4: The Proposed Scheme**.

- 2.39 Therefore, **Technical Chapters 6 12** have considered relevant primary and tertiary mitigation for both the construction and operational phases prior to undertaking their assessment of likely significant effects. Following the conclusion of effects based on the Proposed Scheme (inclusive of primary and tertiary mitigation) any further mitigation measures or monitoring arrangements have been identified (i.e. secondary mitigation).
- 2.40 The primary, tertiary and secondary mitigation detailed within **Technical Chapters 6 12** are summarised in **Chapter 14: Summary of ES and Schedule of Mitigation**.

Significance Criteria

- 2.41 The assessments within this ES report likely significant environment effects for the construction and operational phases of the Proposed Scheme.
- 2.42 In general, the following criteria have been taken into account when determining significance:
 - Relevant legislation;
 - International, national, regional and/or local standards/guidance;
 - Probability/likelihood of occurrence of likely effect;
 - Geographical extent of likely effect;
 - Magnitude and complexity of likely effects;
 - Sensitivity/value/importance of the receptor/receiving environment;
 - Duration of effect (short up to 1 year, medium 1 to 10 years, or long-term over 10 years);
 - Frequency and reversibility of effect (temporary/permanent); and
 - Inter-relationship between effects (both cumulatively and in terms of potential effect interactions).
- 2.43 The method for assessing significance of effects varies between environmental topics but in principle is based on the environmental sensitivity (or value/importance) of an identified receptor and the anticipated magnitude of change from the baseline conditions. Sensitivity (or value/importance) has been reported on a scale of **high**, **medium**, **low** and **negligible** and magnitude of change on a scale of **large**, **medium**, **small** and **negligible**.
- 2.44 Where a technical specific assessment methodology has been applied which uses differing criteria, in order to align with applicable best practice or relevant guidance, the concluding assessment of significance has been aligned with the above in order to provide continuity across the entire EIA (especially with respect to cumulative effects) whilst aligning with applicable guidance and best practice. This ensures that the conclusions of the different effects can be compared during the decision making process and robustly considered within the cumulative assessment. Where this has been applied the assessment methodology is clearly set out within **Technical Chapters 6 12**.

- In addition, a distinction has been made between direct and indirect; permanent and temporary; and positive and negative effects (reported as beneficial or adverse within this ES). The duration of the effect has been assessed as either 'short-term', 'medium-term' or 'long-term'. Further consideration of whether the effect is short (less than 1 year), medium (1 10 years) or long-term (more than 10 years) has been identified where necessary and different to the assumption provided above.
- 2.46 Cumulative effects have been considered as a single coordinated assessment (Chapter 13: Assessment of Cumulative Effects).
- 2.47 The assignment of significance has been based on professional judgement and the matrix below (**Table 2.2**) is intended to be a tool to assist with the process. Whilst the matrix provides ranges this is to guide the competent expert and therefore a definitive level of effect is concluded, wherever possible. A conclusion has also been provided as to whether the effect is significant or not, again based on professional judgement.

	Sensitivity (or value / importance)								
Magnitude of Change		High	Medium	Low	Negligible				
	Large	Major	Moderate to Major	Minor to Moderate	Negligible				
	Medium	Moderate to Major	Moderate	Minor	Negligible				
	Small	Minor to Moderate	Minor	Negligible to Minor	Negligible				
	Negligible	Negligible	Negligible	Negligible	Negligible				

Table 2.2: Matrix to Support Determining the Level of Effect

- 2.48 The following terms have been used to define the significance of the effects identified and these can be 'beneficial' or 'adverse':
 - **Major effect**: where the Proposed Scheme is likely to cause a considerable change from the baseline conditions and the receptor has limited adaptability, tolerance or recoverability or is of the highest sensitivity. This effect is considered to be 'Significant';
 - Moderate effect: where the Proposed Scheme is likely to cause either a considerable change from the baseline conditions at a receptor which has a degree of adaptability, tolerance or recoverability or a less than considerable change at a receptor that has limited adaptability, tolerance or recoverability. This effect is considered more likely to be 'Significant' but will be subject to professional judgement;
 - **Minor effect**: where the Proposed Scheme is likely to cause a small, but noticeable change from the baseline conditions on a receptor which has limited adaptability, tolerance or recoverability or is of the highest sensitivity or a considerable change from the baseline conditions at a receptor which can adapt, is tolerant of the change or/and can recover from the change. This effect is considered less likely to be 'Significant' but will be subject to professional judgement; and

- **Negligible**: where the Proposed Scheme is unlikely to cause a noticeable change at a receptor, despite its level of sensitivity or there is a considerable change at a receptor which is not considered sensitive to a change. This effect is 'Insignificant'.
- 2.49 **Technical Chapters 6 12** provide a summary of effects table, which outlines the effects assessed, associated sensitive receptors, residual effects and whether the effect is significant or not.

Limitation and Assumptions

2.50 Schedule 4, Paragraph 6 of the EIA Regulations state that an ES should include:

'...details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the require information and the main uncertainties involved'

2.51 Where **Technical Chapters 6 – 12** experience limitations or are based on assumptions these have been clearly identified within the relevant chapter.

References

¹ Ministry of Housing, Communities & Local Government, National Planning Practice Guidance [Online], available at: https://www.gov.uk/government/collections/planning-practice-guidance (Accessed on 26/09/2019);

² IEMA, Environmental Impact Assessment Guide to: Shaping Quality Development, November, 2015;

³ IEMA, Environmental Impact Assessment Guide to: Delivering Quality Development, July, 2016; and