

2 ASSESSMENT SCOPE AND METHODOLOGY

2.1 INTRODUCTION

2.1.1 This chapter explains the methodology used to prepare the technical chapters of this Updated Environmental Statement (ES) and describes its structure and content. In particular, it sets out the process of identifying and assessing the likely significant environmental effects of the Proposed Development.

2.2 GENERAL APPROACH TO ENVIRONMENTAL STATEMENT

2.2.1 As stated in Chapter 1 of this Environmental Statement this document has been prepared and assessed using the 2017 EIA Regulations (as amended).

2.2.2 Schedule 4 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 *'Information for inclusion in environmental statements'* requires that an Environmental Statement should include at least the following information:

- *Part 1: 'A description of the development'* - including information on the location of the development site, the physical characteristics of the development,
- *Part 2: 'A description of the reasonable alternatives studied by the developer'* – for example with regard to development design, technology, location, size and scale
- *Part 3: 'A description of the relevant aspects of the current state of the environment (baseline scenario)'*- including how the baseline might evolve if the development were not to proceed
- *Part 4: 'A description of the factors specified in regulation 4(2) likely to be significantly affected by the development'* – including with regard to 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 adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape
- *Part 5: 'A description of the likely significant effects of the development on the environment'* - including with regard to: construction and/or demolition works, the use of natural resources, emission of pollutants and the disposal of waste, the potential for accidents, cumulative effects with other developments, vulnerability with respect to climate change and the technologies and materials to be used. The description of the likely significant effects should cover **'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'**
- *Part 6: 'A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment'* - including

with regard to: technical deficiencies or lack of knowledge encountered compiling the required information and the main uncertainties involved.

- ***Part 7: 'A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment' - including where appropriate with regard to: any proposed monitoring arrangements (for example the preparation of a post-project analysis). The description should explain the 'extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset', and should cover both the construction and operational phases.***
- ***Part 8: 'A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned'. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.***
- ***Part 9: 'A non-technical summary of the information provided under paragraphs 1 to 8'.***
- ***Part 10: 'A reference list detailing the sources used for the descriptions and assessments included in the environmental statement'.***

2.2.3 Accordingly, this ES update includes each of the elements set out above.

2.3 DEVELOPMENT PARAMETERS

2.3.1 The Updated Proposed Development, which has been the subject of this EIA, is described in more detail within **Chapter 3: The Site and the Proposed Development** and its accompanying Figures. To ensure that the Proposed Development, as it evolves with the benefit of subsequent approvals and/or reserved matters, will remain the same as that assessed within this ES, Updated Development Parameters and an accompanying Updated Parameter Plan have been established and assessed. These set out the basis on which the assessment of the potential for the Updated Proposed Development to result in significant environmental effects, as defined in the EIA Regulations, has been undertaken.

2.4 CONSIDERATION OF ALTERNATIVES

2.4.1 As noted above, Schedule 4 (Part 2), Paragraph 2, of the EIA Regulations requires that the ES contain "A description of the reasonable alternatives studied by the developer". Furthermore, the published National Planning Practice Guidance (NPPG) on EIA (Paragraph 035) states that "Where alternative approaches to development have been considered, the Environmental Statement should include an outline of the main alternatives studied which are relevant to the proposed development and its specific characteristics and provide an indication of the main reasons for the choice made, including a comparison of the environmental effects".

2.4.2 Accordingly, this Updated ES contains **Chapter 4: Alternatives Considered** setting out the main alternative development proposals (i.e. land uses) and/or design iterations (i.e., layouts, appearance, materials etc), as appropriate, as considered by the

Applicant. This includes a discussion of the differences between the Updated Proposed Development and the scheme which was considered in the original 2021 ES submission.

2.5 SCOPE OF ENVIRONMENTAL IMPACT ASSESSMENT

2.5.1 In order to determine the scope of the EIA, a formal request for a Scoping Opinion was submitted on behalf of the Applicant to Barnsley Metropolitan Borough Council in March 2021 (see **Appendix 2.1**). The request described the site context, the nature and purpose of the Proposed Development, and identified the proposed scope and structure of the EIA for the Council’s consideration.

2.5.2 Barnsley Metropolitan Borough Council issued their formal Scoping Opinion in April 2021 (see **Appendix 2.2**), confirming the following technical assessment chapters should be included in the ES:

- *Landscape and visual effects*
- *Transport*
- *Archaeology and Cultural Heritage*
- *Ground Conditions*
- *Flood Risk and Drainage*
- *Air Quality*
- *Noise*
- *Socio-economics and Health*
- *Climate Change*

2.5.3 The Scoping Opinion also enclosed a number of the responses to the Scoping Request by third parties. These responses are identified below in **Table 2.1**.

Table 2.1: Summary of Scoping Opinion Consultee Responses

Consultee and Issues Raised	How/ Where Addressed
<i>Internal Barnsley MBC Consultees</i>	
Air Quality Pollution Control Officer – Chris Shields	Chapter 12 Air Quality
Biodiversity Officer – Trevor Mayne	Chapter 7 Ecology
Highways – Jason Thomas	Chapter 8 Transport
Public Rights of Way – Rik Catling	Chapter 6 LVIA, and Chapter 8 Transport
Conservation Officer – Tony Wiles	Chapter 9 Heritage
Noise Pollution Control Officer – Paul Denton	Chapter 13 Noise
Drainage – Wayne Atkins	Chapter 11 Flood Risk and Drainage
Tree Officer – Ed Jowett	Chapter 6 LVIA, and Chapter 7 Ecology
South Yorkshire Mining Advisory Service – Paul James	Chapter 10 Ground Conditions
Energy Team- Claire Miskell, Matthew Fox	Chapter 15 Climate Change

Consultee and Issues Raised	How/ Where Addressed
Enterprising Barnsley-Paul Johnson	Chapter 14 Socio-economics and Health
Design-Nik King	Chapter 6 LVIA
Public Health-Julie Tolhurst	Chapter 14 Socio-economics and Health
External Consultees	
Coal Authority	Chapter 10 Ground Conditions
Highways England	Chapter 8 Transport
Yorkshire Water	Chapter 11 Flood Risk and Drainage
Trans Pennine Trail Office	Chapter 6 LVIA, and Chapter 8 Transport

2.5.4 Given the nature and intended longevity of the Proposed Development's operational life, decommissioning has not been considered as part of this study. Accordingly, this EIA focuses on the potential likely significant effects of the Proposed Development during the site remediation/construction and operational phases only.

2.5.5 Accordingly, the environmental themes scoped into or out of the EIA are given in **Table 2.2**.

Table 2.2: Environmental Themes Scoped In / Out

Environmental Theme	Scoped In/Out	How/ Where Addressed / Reason for Scoping Out
Human Beings	In	Chapter 6 LVIA, Chapter 12 Air Quality, Chapter 13 Noise, Chapter 14 Socio-economics and Health, and Chapter 15 Climate Change
Fauna and Flora	In	Chapter 7 Ecology
Soil	In	Chapter 10 Ground Conditions
Water	In	Chapter 11 Flood Risk and Drainage
Air	In	Chapter 12 Air Quality
Climatic Factors	In	Chapter 15 Climate Change
Cultural and Archaeological Heritage	In	Chapter 9 Archaeology and Cultural Heritage
Landscape	In	Chapter 6 LVIA
Inter-relationship between above factors	In	Where applicable, within each topic chapter (Chapters 6 to 14) under the heading Cumulative and In-combination Effects. Also consideration of each element together given in Chapter 15 Climate Change

Request for Additional Environmental Information

2.5.6 Following the submission of the original July 2021 Environmental Statement a formal request for additional Environmental Information was made by Barnsley Metropolitan Borough Council, in a letter dated 21st January 2022 (**Appendix 2.3**). This updated Environmental Statement seeks to address matters raised, which are summarised below:

Proposed Development

2.5.7 The request letter noted that **'The indicative yield for site MU1 in the Local Plan is 1700 dwellings... The specified numbers on the outline application together with the full application for phase 1a exceeds that number. The hybrid application does not cover the full Local Plan allocation and as such it is unclear how the application site can accommodate the suggested numbers taking account of design/spacing standards and site constraints'**. The Updated Proposed Development now comprises for up to 1,560 Dwellings [a reduction from the previous 1,760]. This figure combined with that of the application for 140 dwellings (*App 2020/0977- Applicant: Countryside Properties PLC*), on a parcel of land which lies adjacent to the Site and which also forms part of the wider site allocation, reduces the overall total of dwellings proposed at the MU1 area to the 1,700 total as set out in the Local Plan.

2.5.8 The request letter noted that **'The planning application for the Barnsley West development (2021/1090) now shows a severely severed connection to the north eastern side adjoining the Countryside scheme which will make access from this site to the central facilities (the school, community and commercial facilities) much more difficult and encourage more people to use private car as a means of travel'**. The revised proposals now include for greater connectivity with the adjoining the Countryside scheme, including the provision of access for pedestrians.

Ground Conditions

2.5.9 A request was made in the request letter for submission of the Site Investigation report and Remediation Statement/Strategy covering the residential element of the site. This additional material is provided amongst the updated Appendices to Chapter 10 Ground Conditions.

Landscape and Visual Effects

2.5.10 The request letter set out that the LVIA **'does not explore any alternative strategies (such as cut and fill or reducing the commercial unit heights)'**. The revised proposals now include for both a revised approach to the site levels strategy and a reduction in the maximum heights of the commercial units. This is described further in Chapter 3 - The Site and the Proposed Development.

2.5.11 The request letter also discussed the construction programme stating **'the effects of an 11 year build programme is a significant timeframe in the life of a resident; further consideration of phasing is necessary to assist with assessing the effects'**. The revised proposals now include for a phased approach to construction, resulting from a revised approach to the site levels strategy. This is described further in Chapter 3 - The Site and the Proposed Development.

2.5.12 Regarding the trees at the site the request letter set out that **'The levels and impacts on the trees need to be reassessed in conjunction with the arboriculture consultants and efforts to retain trees be made'**. The revised proposals now include for both a revised approach to the site levels strategy and a

reduction in the vegetation loss required. This is described further in Chapter 6 Landscape and Visual Effects and Chapter 7 Ecology (Biodiversity).

Highways

2.5.13 The request letter identified that '**The response from National Highways (formerly Highways England), includes a holding direction requesting that planning permission not be granted until further information is submitted, and assessment undertaken... This should be considered in conjunction with comments received from the BMBC Highways Development Control service**'. The matters raised by National Highways are now addressed within the updated Chapter 8: Transport.

2.5.14 It was also set out in the request letter that the Council's Highways Department had raised several issues with the Transport Assessment. The matters are addressed in the updated Transport Chapter 8.

2.5.15 Regarding public rights of way, the request letter set out that '**Due to the scale of the site and timeframes for earthworks and construction, there are concerns relating to both the temporary and long-term impacts on PROW; the proposals do not currently provide sufficient clarity or certainty in terms of the programme of temporary and permanent diversions**'. The proposals now include a revised approach to the site levels strategy and approach to the construction phase works. This has served to reduce the potential impact on the public rights of way network. Further details are set out in Chapter 6 Landscape and Visual Effects and the updated Landscape Design Statement provided as part of the wider updated planning application submission documents. In summary, the following would be the updated position regarding footpath closures and diversions, with references given to the Land Parcels within the site show on the new Phasing Plan (Figure 3.3):

Public Footpath 11: runs across the northern section of the site on an east-west axis between Higham Common Road and Church Street. At the east end, the footpath joins with Public Footpath 12 adjacent to Redbrook Farm, which provides a route to Redbrook Road.

- **Section through R1 and S1 to be closed from 2024 to 2030.**
- **Section through C1, S13 and SI4 to be closed from 2026 to 2027.**

Public Footpath 248: runs along the southeast boundary of the site and continues north, to provide a connection between Pogmoor and Church Street, via Gawber Primary School.

- **to be closed from 2024 to 2027**

Public Footpath 249: runs northwest from the end of Farm House Lane and joins **Public Footpath 13** which continues west across the site, joining Hermit Lane.

- **to be closed from 2024 to 2027 and then PF13 reopened on slightly different alignment**

Public Footpaths 250 and 252: also provide short links between Public Footpaths 248 and 249.

- **to be closed from 2024 to 2027 and then PF13 reopened on slightly different alignment**

Public Footpath 40: heads north from Hermit Lane, joining with Public Footpath 11.

- **to be closed from 2026 to 2036 and then reopened on slightly different alignment (however an alternative route would be available along the southern section of the link road during this period)**

2.5.16 Regarding Hermit Lane, the request letter set out that **'the Council's PROW team do not support the proposals based on the current information provided'**. The revised proposals now have an alternative approach to Hermit Lane, allowing it to remain open to pedestrians and cyclists. Further details are set out in the updated Chapter 3 - The Site and the Proposed Development and Chapter 8: Transport. In summary however, Hermit Lane would be stopped to motor vehicles in 2025 to allow construction of link road. The route would however be kept on its original alignment and pedestrians and cyclists would be able to use Hermit Lane up to 2027. Thereafter the route would be closed from 2027 to 2036 then reopened to pedestrians and cyclists on its original alignment. During the period of closure other alternative footpath routes would become available within the site.

Noise and Air Quality

2.5.17 Regarding the noise assessment, the request letter set out that 'a further noise assessment scenario is requested at 2026 which includes the full link road and the effects that this has on current and proposed residents. The current noise assessment refers to the 2026 scenario being phase1A up to a worst-case scenario of 275 dwellings for assessment purposed including the primary school and the first part of the link road running from Barugh Green Road to the northernmost internal roundabout'. The same request was also made in relation to the air quality assessment. This additional assessment scenario is provided in both the updated Chapter 13 Noise and Chapter 12 Air Quality.

Biodiversity

2.5.18 The request letter set out that 'The applications currently lack sufficient ecological supporting information, and no biodiversity metric has been submitted. The adopted masterplan for site MU1 requires a minimum 10% net gain in biodiversity and as such this information must be submitted to firstly understand the baseline position followed by an assessment of where gains can be achieved'. Information regarding biodiversity net gain is now set out in the updated Chapter 7 Ecology (Biodiversity).

2.6 ENVIRONMENTAL IMPACT ASSESSMENT METHODOLOGY

2.6.1 The content of the Updated ES is based on the following:

- Review of the baseline situation through existing information, including data, reports, site surveys and desktop studies;
- Consideration of the relevant National Planning Policy Framework (NPPF) and accompanying National Planning Practice Guidance (NPPG), and the statutory extant and emerging development plan policies;
- Consideration of potential sensitive receptors;
- Identification of likely significant environmental effects and an evaluation of their duration and magnitude;
- Expert opinion;
- Modelling;

- Use of relevant technical and good practice guidance; and
- Specific consultations with appropriate bodies.

2.6.2 Environmental effects have been evaluated with reference to definitive standards and legislation where available. Where it has not been possible to quantify effects, assessments have been based on available knowledge and professional judgement.

2.7 DETERMINING SIGNIFICANCE

2.7.1 The purpose of the EIA is to identify the likely ‘significance’ of environmental effects (beneficial or adverse) arising from a Proposed Development. In broad terms, environmental effects are described as:

- Adverse – detrimental or negative effects to an environmental resource or receptor;
- Beneficial – advantageous or positive effect to an environmental resource or receptor; or
- Negligible – a neutral effect to an environmental resource or receptor.

2.7.2 The significance of environmental effects (adverse, negligible/neutral or beneficial) are generally described in the ES in accordance with the following 7-point scale, unless where specifically explained otherwise :-



2.7.3 Significance generally reflects the relationship between two factors:

- The magnitude or severity of an effect (i.e. the actual change taking place to the environment); and
- The sensitivity, importance or value of the resource or receptor.

2.7.4 The broad criteria for determining magnitude are set out in **Table 2.3**.

Table 2.3: Degrees of Magnitude and their Criteria

Magnitude of Effect	Criteria
High	Total loss or major/substantial alteration to elements/features of the baseline (pre-development) conditions such that the post development character/composition/attributes will be fundamentally changed.
Medium	Loss or alteration to one or more elements/features of the baseline conditions such that post development character/composition/attributes of the baseline will be materially changed.
Low	A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible / detectable but the underlying character / composition / attributes of the baseline condition will be similar to the pre-development.
Negligible	Very little change from baseline conditions. Change not material, barely distinguishable or indistinguishable, approximating to a ‘no change’ situation.

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

Table 2.4: Degrees of Sensitivity and their Criteria

Sensitivity	Criteria
High	The receptor / resource has little ability to absorb change without fundamentally altering its present character, or is of international or national importance.
Medium	The receptor / resource has moderate capacity to absorb change without significantly altering its present character, or is of high and more than local (but not national or international) importance.
Low	The receptor / resource is tolerant of change without detrimental effect, is of low or local importance.
Negligible	The receptor / resource can accommodate change without material effect, is of limited importance.

2.7.6 Placement within the 7-point significance scale is generally derived from the interaction of the receptor’s sensitivity and the magnitude of change likely to be experienced (as above), assigned in accordance with **Table 2.5** below, whereby effects assigned a rating of Major or Moderate would be considered as ‘significant’.

Table 2.5: Degrees of Significance

Magnitude of Change	Sensitivity of Receptor				
		High	Medium	Low	Negligible
High		Major	Major	Moderate	Negligible
Medium		Major	Moderate	Minor to Moderate	Negligible
Low		Moderate	Minor to Moderate	Minor	Negligible
Negligible		Negligible	Negligible	Negligible	Negligible

2.7.7 The above magnitude and significance criteria are provided as a guide for specialists to categorise the significance of effects within the ES. Where discipline-specific methodology has been applied that differs from the generic criteria above, this is clearly explained within the given chapter under the heading of Assessment Approach.

2.7.8 A significance of effect is assigned both before and after mitigation, where any measures have been set out.

2.8 MITIGATION

2.8.1 Standard measures and the adoption of construction best practice methods to avoid, minimise or manage adverse environmental effects, or to ensure realisation of beneficial effects, are assumed to have been incorporated into the design of the Updated Proposed Development and the methods of its construction from the outset. Further information on the standard measures and construction best practice is detailed in **Chapter 3: The Site and the Proposed Development**. Where outlined, the assessment is of the Updated Proposed Development incorporating these measures.

2.8.2 Where mitigation measures are proposed that are specific to an environmental theme (i.e. ecological measures incorporated into the landscaping scheme, exclusion of areas of archaeological significance from development etc) and incorporated into the design, these are also outlined within **Chapter 3**, and highlighted within the relevant technical chapter.

2.8.3 Where the assessment of the Updated Proposed Development has identified potential for adverse environmental effects, the scope for mitigation of those effects, for example by way of compensatory measures, has been considered and is outlined in the appropriate technical chapter. It is assumed that such measures would be subject to appropriate planning conditions or obligations.

2.8.4 Where the effectiveness of the mitigation proposed has been considered uncertain, or where it depends upon assumptions of operating procedures, then data and/or professional judgment has been introduced to support these assumptions.

2.9 CUMULATIVE AND IN-COMBINATION EFFECTS

Cumulative Effects

2.9.1 Within EIA, cumulative effects are generally considered to arise from the combination of effects from the Proposed Development and from other proposed or permitted schemes in the vicinity, acting together to generate elevated levels of effects. Examples of these kinds of effects that can be readily appreciated could include:

- Traffic generated from developments, affecting the surrounding road network;
- Air quality effects from developments; and
- Discharges to the water environment.

In-Combination Effects

2.9.2 In-combination effects arise where effects from one environmental element bring about changes in another environmental element. These effects are also reviewed in each of the technical chapters of this ES where relevant. Examples of the main types of interactive effects are as follows:

- Effects of traffic on noise;
- Effects of traffic on air quality;
- Effects of water discharges on ecology;
- Effects of landscaping on ecology;
- Effects of waste on traffic; and
- Effects of land contamination on air and water quality.

Cumulative Schemes

2.9.3 It is noted that in the vicinity of the site, there is an application for 140 dwellings (*App 2020/0977- Applicant: Countryside Properties PLC*), on a parcel of land which lies adjacent to the Site and which also forms part of the wider site allocation.

2.9.4 There are also two applications (*App 2020/0027 and 2020/0028 - Applicant: Strata Sterling Barnsley West*) which have already been submitted and consented for works within the Site associated with the delivery of the new Link Road between M1, Junction 37 and the A635, Barugh Green Road. Given how the works included with these applications are integral to the overall proposals at the Site it is understood that they should be considered within the main assessment as part of the overall proposals, rather than within the separate cumulative effects section.

2.9.5 Wider applications for further upgrades to the highways network may also be relevant for consideration in the cumulative effects section of some chapters of the ES, as may other proposed developments in the wider area. This includes the following list of schemes:

Planning Reference	Application Summary
2013/0280	Proposed residential development (175 dwellings) at Dearne Hall Road
2018/0965	Penny Pie Park Gyratory – Highway Improvement Scheme
2019/0286 / 2022/0916	Capitol Park – Employment development of approximately 16,723 sqm
2020/0977	Land off Barugh Green Road – Residential development of 140 dwellings (this is part of MU1 allocation, but in separate ownership)
2020/0040	Highways works comprising the linking of Capitol Close and Higham Lane via a new roundabout
2019/1567	Highways works comprising construction of new roundabout on Barugh Green Road to create a road link into MU1 Local Plan allocation site
2020/0028	Highways works comprising construction of new roundabout on Higham Common Road to create a road link into MU1 Local Plan allocation site
2021/1631	Erection of a new secondary school at land off Keresforth Close, Barnsley
2021/1642	Residential development of 198 dwellings at land off Smithywood Lane and Calver Close, Gilroyd, Barnsley
2022/0016	Residential development of 215 dwellings at land north of Keresforth Road, Dodworth, Barnsley.
2022/0619	Woolley Colliery
HS11 (2017/0990)	214 dwellings at Bloomhouse Lane, Darton (Allocated for 214 dwellings)
HS25 (No App)	Land east of Woolley Colliery (Allocated for 118 dwellings)

2.10 GENERAL ASSUMPTIONS AND LIMITATIONS

2.10.1 The principal assumptions that have been made and any limitations that have been identified in preparing this ES are set out below:

- All of the principal land uses adjoining the Application Site remain as present day, except where redevelopment proposals have been granted planning consent. In those cases it is assumed the redevelopment proposals will be implemented or would but for the development being implemented;
- Information received from third parties is complete and up to date;
- The design, construction and completed stages of the Proposed Development will satisfy legislative requirements; and
- Conditions will be attached to the planning permission with regards “mitigation”, where considered necessary to make the development acceptable.

STRUCTURE OF TECHNICAL CHAPTERS

2.10.2 Throughout the EIA process, the likely significant environmental effects of the Proposed Development will be assessed. Within each of the technical chapters the information which will inform the EIA process has generally been set out in the following way:

- **Introduction** – to introduce the topic under consideration, state the purpose of undertaking the assessment and set out those aspects of the Proposed Development material to the topic assessment;

- **Assessment Approach** – to describe the method and scope of the assessment undertaken and responses to consultation in relation to method and scope in each case pertinent to the topic under consideration;
- **Baseline Conditions** – a description of the baseline conditions pertinent to the topic under consideration including baseline survey information;
- **Assessment of Likely Significant Effects** - identifying the likely effects, evaluation of those effects and assessment of their significance, considering both construction and operational and direct and indirect effects;
- **Mitigation and Enhancement** - describing the mitigation strategies for the significant effects identified and noting any residual effects of the proposals;
- **Cumulative and In-combination Effects (where applicable)** consideration of potential cumulative and in-combination effects with those of other developments; and
- **Summary** – a non-technical summary of the chapter, including baseline conditions, likely significant effects, mitigation and conclusion.