

Environmental Impact Assessment (EIA)
Scoping Report
Land at Norden Road, Bamford

September 2026

Turley

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Our reference
01984



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1. Introduction

Overview

- 1.1 Northstone (the 'Applicant') is preparing an application for hybrid planning permission (the 'Application') for the delivery of a residential led scheme of up to 350 homes (the 'Proposed Development') at land west of Norden Road, Bamford (the 'Site'). The Application will be submitted to Rochdale Borough Council (RBC), as the local planning authority (LPA).
- 1.2 The Applicant has instructed Turley to lead, manage and control the Environmental Impact Assessment (EIA) process for this project in line with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended)¹ (the 'EIA Regulations').
- 1.3 The project team have developed a description of the Proposed Development (a 'High Level Development Specification'), which is outlined in **Chapter 4**. Whilst the Proposed Development continues to be refined, **Chapter 4** aims to provide factual and sufficient information to inform the EIA Scoping process and the preparation of this EIA Scoping Report.
- 1.4 In line with the above, the area to be considered for the purpose of the EIA (the 'Site') is approximately 19.52 hectares (ha) and is shown in **Figure 1.1**. The Site is considered to represent the maximum extent of all temporary and permanent works that may be required as part of the Proposed Development.
- 1.5 The Site forms part of 'Policy JP Allocation 17: Bamford / Norden' in the Places for Everyone Joint Development Plan². An EIA Scoping process was undertaken previously for the full allocation (RBC ref: 21/01531/SCO). This EIA Scoping Report has been prepared to reflect the Proposed Development (**Chapter 4**). The residual parcels of the allocation will be considered in-combination with the Proposed Development to allow for an assessment of the allocation as a whole (see **Chapter 2: Approach to EIA** for further details).

Request for a Scoping Opinion

- 1.6 To inform the EIA process, in accordance with Regulation 15 of the EIA Regulations, Turley requests a Scoping Opinion from RBC informed by this report. In line with Regulation 15(2) of the EIA Regulations, this report contains:
 - A plan sufficient to identify the land (**Figure 1.1**);
 - A description of the Proposed Development, including its nature, purpose, location, and technical capacity (**Chapter 4**);

¹ The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended). SI No. 571

² [Microsoft Word - Places for Everyone Joint Development Plan .docx](#)

- An explanation of the likely significant effects of the development on the environment (**Chapters 6 – 8**); and
 - Such other information or representations as the person making the request may wish to provide or make.
- 1.7 The Scoping Opinion is sought on the breadth of the technical topics and associated effects to be considered within the EIA and reported in the Environmental Statement, as well as the scope and methodology for assessment.
- 1.8 In accordance with Regulation 15(4) of the EIA Regulations, it is anticipated that the statutory timescales will be met, and that Turley will be in receipt of a Scoping Opinion no later than five weeks from the date of receipt of this request. Any deviation from this will be subject to a request from RBC and subsequent agreement by the Applicant.
- 1.9 Furthermore, in line with Regulation 28, it is anticipated that RBC will make available this report and their corresponding Scoping Opinion, with accompanying consultee comments where applicable, for public inspection, either through RBC's planning portal website or by other means.

Definition of EIA

- 1.10 The term 'EIA' has the meaning given by Regulation 4 of the EIA Regulations, as “a process consisting of—
- (a) the preparation of an environmental statement;
- (b) any consultation, publication and notification required by, or by virtue of, these Regulations or any other enactment in respect of EIA development; and
- (c) the steps required under regulation 26” (consideration of whether planning permission or subsequent consent should be granted).
- 1.11 Under Regulation 4(2), an EIA must “identify, describe, and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the Proposed Development on the following factors:
- (a) population and human health;
- (b) biodiversity, with particular attention to species and habitats protected under any law that implemented Directive 92/43/EEC³ and Directive 2009/147/EC⁴;
- (c) land, soil, water, air and climate;
- (d) material assets, cultural heritage and the landscape; and
- (e) the interaction between the factors referred to in sub-paragraphs (a) to (d)”.

³ OJ No. L 206, 22.7.1992, p. 7.

⁴ OJ No. L 20, 26.1.2010, p. 7.

- 1.12 EIA is a procedure that must be followed for certain types of projects before development consent (i.e., planning permission) can be given. The procedure is a means of drawing together, in a systematic way, an assessment of a project's likely significant environmental effects. This helps to ensure that the importance of the predicted effects and the scope for reducing them are properly understood by the public and the relevant local planning authority before it makes its decision.
- 1.13 The aim of EIA, as defined by national Planning Practice Guidance (PPG)⁵, is to *"protect the environment by ensuring that a local planning authority when deciding to grant planning permission for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision making process"* and to *"ensure that the public are given early and effective opportunities to participate in the decision making procedures"*.

Requirement for EIA

- 1.14 The Proposed Development falls within the remit of the EIA Regulations as it exceeds the criteria set out within Schedule 2 Paragraph 10(b) 'Infrastructure projects – Urban Development projects' in that the Site area is over 5ha and over 150 dwellings are proposed.
- 1.15 Whilst the applicable thresholds are met, this does not determine the requirement for EIA but requires a subsequent stage to determine *"likely significant effects on the environment by virtue of factors such as its nature, size or location"*.
- 1.16 At this stage, a number of potential likely significant effects have been identified. Therefore, an EIA will be undertaken, the outputs of which will be reported in an ES. The EIA is being used as a tool to identify and manage the environmental impacts and where possible avoid, reduce or offset them as part of the design process (see **Chapter 2**).

Stakeholder Engagement

- 1.17 Consultation is an important part of the EIA process. It is the responsibility of RBC to undertake the appropriate level of consultation, including the identification of relevant and applicable statutory and non-statutory consultees, required to inform their Scoping Opinion.
- 1.18 It is anticipated that RBC will consult with the following stakeholders during the preparation of their Scoping Opinion:
- RBC (internal technical departments);
 - Lead Local Flood Authority;

⁵ Ministry of Housing, Communities and Local Government (2017) Planning Practice Guidance: Environmental Impact Assessment. Available at: <https://www.gov.uk/guidance/environmental-impact-assessment>

- Environment Agency;
- Natural England;
- National Highways;
- Historic England;
- Greater Manchester Archaeological Advisory Service;
- Greater Manchester Ecology Unit;
- Cadent Gas;
- Electricity North West and National Grid;
- United Utilities; and
- BT Openreach.

1.19 In advance of preparing this report, consultation with several of the above consultees has already been undertaken and continues to inform specifics of the design of the Proposed Development, baseline data collection and assessment methodologies. A summary of the project consultation undertaken prior to or during the preparation of this EIA Scoping Report is provided in **Appendix 1.1**.

Structure of the EIA Scoping Report

1.20 This EIA Scoping Report is structured as follows:

- **Chapter 1: Introduction** sets out the background to the Proposed Development and the requirement for EIA;
- **Chapter 2: Approach to EIA** describes the overarching methodology and approach to the EIA process;
- **Chapter 3: Site Context** provides a description of the Site and its surrounding context;
- **Chapter 4: High Level Development Specification** provides an overview of the Proposed Development;
- **Chapter 5: Technical Topics which are Not Significant** identifies those environmental topics which have been scoped out of the EIA with justification;
- **Chapters 6 – 8: Landscape and Visual; Socio-Economics and Human Health; and Climate Change** provide the proposed scope and methodology for those technical topics which will be assessed in the ES;
- **Chapter 9: Methodology for Assessment of Cumulative Effects** sets out the approach to assessing cumulative effects; and

- **Chapter 10:** Summary provides a brief summary of the EIA Scoping Report.

2. Approach to EIA

Objectives

- 2.1 This report supports a formal request for a Scoping Opinion from RBC as to the scope and methodology for assessment to be adopted in the EIA and reported in the ES. It aims to ensure that there is a clear and agreed scope for the EIA, including the relevant baseline studies, that will be required to ensure a robust assessment of likely significant effects.
- 2.2 The Scoping Opinion is sought on the technical breadth of the technical topics considered within the EIA and the specific effects within each of these technical topics (**Chapters 6 – 8**).
- 2.3 The Institute of Sustainability and Environmental Professionals (ISEP) has issued guidance on the interaction of design and EIA as part of 'Implementing the Mitigation Hierarchy from Concept to Construction'⁶. The principles of this guidance have been adopted for the EIA.

Iterative Approach to Scoping

- 2.4 Whilst this report seeks to establish the overall framework for the EIA in relation to the technical topics and associated likely significant effects that will be subject to detailed assessment, iterative 're-scoping' will continue as the design and strategy are refined, plans and principles are developed, and further baseline information is obtained.
- 2.5 Any deviation between the scope of effects considered within this report and the ES will be clearly communicated in the ES. This is in accordance with the PPG, which states that *"where it becomes evident during the assessment process...that a particular environmental factor is absent or unlikely to give rise to significant effects it may be appropriate to exclude that factor from further assessment"*⁷.
- 2.6 It is requested that such an approach is clearly endorsed within the Scoping Opinion issued by RBC.

Definition of the Proposed Development and Consideration of the wider Development Project/Allocation

- 2.7 The Proposed Development is defined in the High Level Development Specification in **Chapter 4** and includes up to 350 dwellings. This is approximately two thirds of the 'Policy JP Allocation 17: Bamford / Norden' allocation. To ensure an assessment of the full allocation, i.e, the development project as a whole, the residual parcels of the allocation will be assessed in-combination with the Proposed Development. This assessment will be commensurate to the level of information available (i.e. informed by planning application material where applications are live, or by reasonable

⁶ ISEP (2024) Implementing the Mitigation Hierarchy from Concept to Construction

⁷ Planning Practice Guidance: Environmental Impact Assessment, Paragraph 018

assumptions where there is no live application). No new specific survey work or technical assessment will be undertaken for land outside of **Figure 1.1**.

Approach to the Consideration of Alternatives

- 2.8 Schedule 4, Paragraph 2 of the EIA Regulations states that an ES should include:

"a description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects".

- 2.9 The PPG adds that where *"alternative approaches to development have been considered, the Environmental Statement should include a description of the reasonable alternatives studied which are relevant to the Proposed Development and its specific characteristics and provide an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects"*⁷.

- 2.10 The EIA Regulations and PPG do not require an Applicant to consider alternatives, nor present an assessment of them. Instead, where reasonable alternatives have been considered by the Applicant, these should be described and an indication of the main reasons for selecting the chosen option. This includes a comparison of the environmental effects.

- 2.11 The EIA Regulations and the PPG do not identify a specific methodology for the consideration of reasonable alternatives. Therefore, the methodology adopted will be based on professional experience of similar projects and an understanding of the Proposed Development and its context.

- 2.12 The consideration of alternatives follows a two-step approach:

- **Step 1:** Consideration of 'factors' that constitute alternatives based on the EIA Regulations (i.e., alternative sites, alternative designs, alternative technologies and the 'do nothing' scenario) and justification of their inclusion/exclusion from further reporting, as set out below; and
- **Step 2:** Qualitative appraisal of the 'factors' brought forward from Step 1 and, where appropriate, a comparison of the environmental effects.

Step 1 – Consideration of Factors

- 2.13 The relevant factors have been considered to determine the need for further reporting:

- Alternative sites – The Site is under the control by the Applicant and is an allocated site for residential development in the Places for Everyone Joint Development Plan. Therefore, a site selection process has already been undertaken as part of the local plan process, concluding the Site to be appropriate. Alternative sites have not been considered by the Applicant and will not be taken forward into Step 2

- Alternative designs – The design of the Proposed Development has and will continue to evolve in response to stakeholder engagement, technical studies and environmental constraints and opportunities. As such, a design process has been undertaken where ‘alternatives’ have been considered and disregarded. Therefore, alternative development designs are considered applicable and will be taken forward into Step 2.
- Alternative technologies – The Proposed Development is residential and alternative ‘technologies’ are not considered to be applicable as they would be for other types of development (e.g. industrial). As a result, alternative technologies have not been considered and will not be taken forward to Step 2.
- 'Do Nothing' Scenario – Schedule 4, Paragraph 3 of the EIA Regulations requires an ES to include a description of the relevant aspects of the current baseline environment which are likely to evolve without the implementation of development. The assessments of environmental effects presented in the ES⁸ will include the determination of the Site's 'Future Baseline', being the likely condition of the Site in the absence of the Proposed Development or other development. As such, the 'do nothing' scenario will be taken forward to Step 2.

2.14 As set out above, alternative designs and the ‘do nothing’ scenario will be taken forward from Step 1 into Step 2 and reported in the ES.

Study Boundaries for Data Collection

- 2.15 The Site, upon which baseline data has been collected, is defined in **Figure 1.1**. As noted in **Chapter 1**, this is considered to be the maximum extent of all permanent and temporary works associated with the Proposed Development.
- 2.16 Where required, technical specific study areas (informed by relevant best practice and guidance) will be based upon the Site (i.e., radius of searches will be from the Site boundary). The specific study areas for each technical topic are detailed in **Chapters 6 – 8**.

Assessment Against a Consistent Baseline Environment

- 2.17 Schedule 4, Paragraph 3 states that an ES should include:

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

- 2.18 Likely significant effects as a result of the Proposed Development will be described in the ES in relation to the deviation from the baseline environment within the Site and/or relevant technical study areas.

⁸ It is not deemed necessary to consider the future baseline of environmental topics scoped out of the ES given that the Proposed Development is not expected to generate likely significant effects in relation to these topics.

- 2.19 For most technical topics and associated effects, the baseline environment will comprise the existing environmental characteristics and conditions based on surveys undertaken and information/data available at the time of the technical assessments. Deviation from this approach is noted under 'Assessment Scenarios' below and within the relevant technical chapters.
- 2.20 The data used to inform the baseline conditions for the technical assessments reported in the ES (for those technical topics 'scoped in', see **Chapters 6 – 8** for more details) will vary depending upon the timing of the survey or the date when data sources will have been accessed. It is anticipated that baseline information will be collected during 2026. Where data is older, this will be clearly stated in the relevant technical chapter, along with a justification for its continued validity and use.

Consideration of Future Baseline

- 2.21 Schedule 4, Paragraph 3 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 the availability of environmental information and scientific knowledge.”*
- 2.22 As required by the EIA Regulations, the ES will report the future baseline scenario. This will consider potential changes to the Site and study area assuming no further development and the continuation of the existing management regime.

Identification of Sensitive Receptors

- 2.23 Schedule 4, Paragraph 4 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 adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape".*
- 2.24 Informed by baseline information and data, a series of receptors or receptor groups are identified, which are subject to likely significant effects arising from the Proposed Development. These receptors are then subject to assessment within the EIA.
- 2.25 Details of the receptors which are considered likely to be affected at this stage are set out in **Chapters 6 – 8**.

Defining Mitigation and how this will be Controlled

- 2.26 Schedule 4, Part 7 of the EIA Regulations states that an ES should include:

"a description of the measures envisaged 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 both the construction and operational phases".

2.27 Through the EIA process, mitigation measures have been/will be identified and are categorised as:

- **Primary mitigation** – modifications to the location or design of the Proposed Development made during the pre-application phase that are an inherent part of the project;
- **Secondary mitigation** – actions that will require further activity in order to achieve the anticipated outcome and secured by planning condition and/or obligation; and
- **Tertiary mitigation** – 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.

2.28 The assessment of likely significant effects within the ES is based on the assumption that primary and secondary mitigation measures will be implemented. These measures will be secured through planning conditions, legal agreements, and detailed within an Environmental Management Plan (EMP) which will form **Volume 3** of the ES. A Preliminary EMP setting out mitigation committed to as part of this Scoping Report is set out in **Appendix 2.1**.

2.29 The design process has been informed by baseline surveys and preliminary impact assessments, ensuring that primary mitigation measures are embedded into the design where practicable and that the EIA informs the design evolution.

Off-Site Works

2.30 At this stage, the detail of the BNG solution is unknown, but it is likely that off-site land will be required. It is also not known whether upgrades to the existing public foul or potable water network are required.

2.31 The off-site works will be assessed within the ES where they have the potential to result in likely significant environmental effects, commensurate to the level of information available (e.g. if routing is known or if third party studies are available).

Information to Inform the Assessments within the ES

2.32 The Application will seek hybrid planning permission. The technical assessments will be based on parameter plans for the full Proposed Development. The parameter plans will

define the key development parameters to allow worst-case assessment of the outline elements, with further details to be defined through reserved matters applications.

Assessment Scenarios

- 2.33 The EIA will assess the likely significant effects arising from the Proposed Development, taking account of demolition, site preparation/enabling works, earthworks, remedial works and construction (collectively referred to as 'construction') and operational stages.
- 2.34 The following scenarios will be assessed where relevant to each technical topic (and likely significant effects):
- Peak construction – this will vary across technical topics and will not be attributed to a specific year, rather it will be determined at what point the worst-case effect could occur. This will be clearly defined within the technical assessments reported in the ES; and
 - Operation – this will consider environmental effects associated with the full operation of the Proposed Development, once completed, which includes Year 15 for Landscape and Visual.
- 2.35 All scenarios will be considered against the existing baseline conditions as defined above (see '*Assessment Against a Consistent Baseline Environment*').
- 2.36 It should be noted that the assessment scenarios set out above are for purposes of the EIA only. For the purposes of any applications for planning permission, the scenarios assessed may not align with proposed phasing or delivery programmes, which will be set out separately in the **Planning Statement** and other Application documents.

Approach to Defining Level of Effect and Significance

- 2.37 A stepped approach will be adopted to define environmental effects for the construction and/or operational stages of the Proposed Development. The method for assessment of effects (i.e., assessment criteria) will vary somewhat across technical topics, owing to the presence of specific technical guidance, but the assessment of likely significant effects (and specifically the conclusions) will be based on a singular common approach as outlined below.
- 2.38 The steps comprise the following:
- Step 1: Define environmental sensitivity (or value/importance);
 - Step 2: Define magnitude of change;
 - Step 3: Define level of effect; and
 - Step 4: Determine significance.
- 2.39 The method for assessing the level of effect varies between technical topics but in principle will be based on:

- **The environmental sensitivity (or value, importance, etc.) of a receptor** – including aspects such as adaptability, tolerance to change or recoverability from a change; and
 - **The magnitude of change (or impact) from the baseline conditions** – including aspects such as probability / likelihood of occurrence, geographical extent, complexity, duration, frequency and reversibility (i.e. temporary or permanent).
- 2.40 Sensitivity (or value, importance, etc.) will be assessed on a scale of high, medium, low and negligible and the magnitude of change (or impact) will be assessed on a scale of large, medium, small and negligible.
- 2.41 Where relevant, other factors such as feedback from stakeholders, relevant legislation, international / national / regional / local standards and guidance and the inter-relationship between effects will also be considered.
- 2.42 The interpretation and use of the above will be set out within the assessment methodology of each technical topic within the ES.
- 2.43 The assignment of the level of effect will be based on professional judgement with the support of the matrix below (**Table 2.1**), which is seen as a tool to assist with the process. Whilst the matrix within **Table 2.1** provides ranges, this is to guide the competent expert and a definitive level of effect will be provided, where possible, for each effect.

Table 2.1: Matrix to Support Determining the Level of Effect

Magnitude of change (or impact)	Sensitivity (or value, importance, etc.)				
		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

- 2.44 The terms set out in **Table 2.1** used to define the level of effects identified are described as follows and these can be ‘beneficial’ or ‘adverse’:
- **Major effect** – where the Proposed Development 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;
 - **Moderate effect** – where the Proposed Development is likely to cause either a considerable change from the baseline conditions at a receptor that has a degree

of adaptability, tolerance or recoverability or a less than considerable change at a receptor that has limited adaptability, tolerance or recoverability;

- **Minor effect** – where the Proposed Development is likely to cause a small, but noticeable change from the baseline conditions on a receptor that 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 and / or can recover from the change; and
- **Negligible** – where the Proposed Development is unlikely to cause a noticeable change at a receptor, despite its level of sensitivity or there is a considerable change at a receptor that is not considered sensitive to a change.

- 2.45 For some technical topics, relevant guidance or the nature of the effect requires that differing criteria or scales for determining the level of effect be used. For consistency within the ES, the final 'level of effect' will be reported using the terminology and conclusions set out above. This enables the conclusions of assessments across all technical topics to be understood for the decision-making process, along with allowing robust analysis and appraisal as part of the assessment of cumulative effects.
- 2.46 For each effect, a binary judgement will be made as to whether the effect is 'Significant' or 'Not Significant'. The assignment of the level of effect will be based on professional judgement with the support of the sensitivity and magnitude criteria defined above.
- 2.47 Effects will also be described in line with the requirements of the EIA Regulations (i.e., as direct or indirect, secondary, cumulative, short, medium and long-term, permanent or temporary, beneficial or adverse).
- 2.48 Summary of effect tables that outline the likely significant effects, receptors, residual level of effect and significance will be provided at the end of each technical chapter.
- 2.49 Cumulative effects will be considered as a single co-ordinated assessment as outlined in **Chapter 9**.

Format of the ES

- 2.50 The ES will comprise four volumes:
- **Volume 1: Primary Report and Supporting Graphics** – this will include all technical assessment chapters along with supporting figures, plans and visualisations where relevant;
 - **Volume 2: Technical Appendices to the Primary Report** – this will include detailed technical reports, survey data, background studies, and other supporting evidence referenced within **Volume 1**;
 - **Volume 3: Environmental Management Plan** – this will set out all primary, secondary, and tertiary mitigation measures identified through the EIA; and

- **Volume 4: Non-Technical Summary** – this will provide an accessible summary of the ES for non-technical readers, including the key environmental effects and proposed mitigation.

Competent Expertise

- 2.51 Regulation 18, Paragraph 5(a) of the EIA Regulations requires the ES to be prepared by competent experts.
- 2.52 The EIA will be led by Turley. The Institute of Sustainability and Environmental Professionals (ISEP) has awarded Turley the EIA Quality Mark in recognition of our technical quality and commitment to improvement in practice.
- 2.53 All technical assessments within the EIA will be undertaken by a suitably qualified project team, inclusive of a thorough technical review to assure technical credibility, followed by a subsequent procedural review by the EIA co-ordination team and EIA Project Director.
- 2.54 In line with the EIA Regulations, all contributors to the EIA are competent experts in EIA and this will be demonstrated in the ES with an overview of each key expert's qualifications, professional accreditations, and experience.

Interaction of the ES with Other Application Documents and Plans

- 2.55 The Application will be accompanied by a number of documents and plans, some of which will inform the ES and will be appended to the ES as supporting technical evidence (included as part of **Volume 2**). Other documents and plans will form standalone 'Application Documents' and where they contain information relevant to the environmental assessment, they will be cross-referenced within the ES.
- 2.56 At this stage, the following documents are anticipated to be included as appendices to the ES in Volume 2:
- Landscape and Visual Impact Assessment.

3. Site Context

Overview

- 3.1 This chapter summarises the location of the Site and its wider setting. Technical baseline information is provided in **Chapter 5** (for those topics for which no likely significant effects are identified) and **Chapters 6 – 8** (for those topics which will be subject to detailed assessment within the ES).

Location and Setting

- 3.2 The Site (**Figure 1.1**) is approximately 19.52ha located in the administrative area of RBC. The Site is bound by properties to the north; Norden Road and fields and sports facilities which form the residual areas of the allocation to the east; to the south by a property at the junction of Jowkin Lane and Norden Road; and to the west by Jowkin Lane.
- 3.3 The sports facilities to the east include a cricket pitch and club house associated with Bamford Fieldhouse Cricket Club, five tennis courts, football pitches and associated changing facilities and car parking. Bamford Mews is also located to the east, north of the sport facilities.
- 3.4 In the wider area, the residential areas of Bamford and Norden extend east and north respectively, with agricultural land and woodland to the west. The town of Rochdale is located approximately 3km east.

4. High Level Development Specification

Boundary

- 4.1 All temporary and permanent works will take place within the Site as defined on **Figure 1.1**.

Overview of Site Preparation and Construction

- 4.2 It is assumed that temporary fencing and hoarding will be erected around the perimeter of the Site at the outset of construction.
- 4.3 Access during the enabling and construction stage will be from the south west to Norden Road via Bury and Rochdale Old Road, thereby avoiding any routing of traffic through the residential areas of Bamford and Norden itself. A Construction Environmental Management Plan (CEMP) will be secured via a suitable planning condition. The CEMP will incorporate a Haulier's Code of Practice which contractors will be required to adhere to, where required.
- 4.4 Where possible, all PRoWs will remain open throughout the construction stage. However, where necessary, some sections may be temporarily closed or diverted (and these will also be subject to Order approval/s).
- 4.5 The Phase 1 Geoenvironmental Site Assessment (**Appendix 5.5**) for the Site concludes there is unlikely to be extensive sources of contamination, given the undeveloped nature of the Site. In an event that significant contamination is identified, a programme of mitigation or remediation work will be carried out as part of the enabling works in line with a Remediation Strategy approved by the RBC.
- 4.6 As described in **Chapter 3**, overhead power lines cross the Site. These will be retained as part of the Proposed Development with a restriction of residential use within an appropriate easement of the 275KV power lines. Other uses will be considered within the easement (see below).
- 4.7 Diversion may be required to the following existing utilities infrastructure: electricity (Electricity North West and National Grid); gas (Cadent Gas); water infrastructure (United Utilities); and telecoms (BT Openreach), with new connections required as part of the enabling stage and within the Site.
- 4.8 Trees/vegetation along the boundaries of the Site will be retained where possible, with the exception of any access points and associated visibility splays (see below).
- 4.9 There are some limited areas of hardstanding within the Site which will be broken up and reused within the Site. If demolition is required (break up of hardstanding only), this is likely to be limited and will only generate a limited amount of material. Due to the existing topography, there will be a requirement for some earthworks across the Site to ensure that suitable levels are created for development. These levels will also give due consideration to the retention of existing features outlined above.

- 4.10 At this stage, it is assumed that there will be a cut and fill balance and that this will be subject to a Material Management Plan to ensure soil resources are maintained within the Site and are managed to avoid any deterioration in soil quality. In the event that material is required to be disposed of off-site, this will be transferred to another local site where there is a requirement for surplus materials. At this stage, it is not envisaged that additional material from off-site is required to be imported to achieve necessary levels.
- 4.11 Local excavation and trenching works will be required to install services, drainage runs and shallow foundations for structures. It is assumed that shallow foundations will be sufficient to support the proposed structures. Basements are not proposed as part of the Proposed Development.
- 4.12 It is anticipated that mobile cranes will be required during construction.
- 4.13 The proposed construction works will be carried out by a competent contractor that will comply with current legislation⁹. Furthermore, the proposed works will be carried out in accordance with current good environmental practice and guidance for construction. This will be captured by the CEMP for the Proposed Development (incorporating the Haulier's Code of Practice), the Contractor Documents and method statements and risk assessments issued by the contractor ahead of the works. The Site security arrangements for the Proposed Development during the construction stage will be in line with the requirements set out in the Construction (Design and Management) Regulations 2015 and appropriate levels of security (personnel/CCTV) will be provided.
- 4.14 During construction, either a central compound and/or a number of satellite compounds will be required for the contractor and appointed subcontractors. The exact location of the construction compound(s) is unknown at this time, but it will be within the Site.
- 4.15 Construction working hours will be 08:00 to 18:00 Monday to Friday; 08:00 to 14:30 on Saturday; and no construction on Sundays and Bank Holidays. These will be captured in the CEMP, which will be secured by condition.

Proposed Development

- 4.16 The Proposed Development is for up to 350 residential homes (Use Class C3).
- 4.17 The new homes will not be located within the easements associated with the overhead power lines (see above). The maximum extent of development is not defined at this stage; however development will be limited to specific zones.
- 4.18 There will be provision for informal and formal open space and play space within the easements defined above, as well as along the north western boundary of the Site. Informal open space will also be integrated throughout the Site, with a focus on retaining existing hedgerows and creating green links running east-west to maintain

⁹ This includes the Health and Safety at Work etc. Act 1974; the Control of Pollution Act 1974; and Construction (Design and Management) Regulations 2015.

the connection between the retained sports pitches to the east and the open countryside to the west. The open space strategy for the power-line easements will also allow for streets, private drives and paved footpath and cycle routes.

- 4.19 Green space is proposed between the powerline easement and the north-western boundary of the Site. This retains an open buffer between the areas proposed for development and the non-designated asset of Higher Jowkin Farm. This space can be used for biodiversity planting and will maintain a rural quality to the setting of the non-designated asset.
- 4.20 It is anticipated that the new built development will be up to 13m in height (above finished floor level (with an additional tolerance of +/-2m from existing levels)).
- 4.21 Primary vehicular access to the Site will be Norden Road along the eastern boundary of the Site. A pedestrian/cycle access will be provided off Furbarn Road, which would be capable of also providing emergency access if required. The network of PRowS throughout the Site will be retained and enhanced.
- 4.22 A number of existing drainage problems which are considered likely to contribute to the existing surface water flooding issues will be resolved through the preparation of a new surface water drainage strategy. The strategy will ensure that the surface water generated from the new impermeable areas will be retained within the Site (with additional capacity to account for evolving climate conditions). It is likely that surface water generated will discharge to a series of ponds, ditches or drainage channels and sewers where appropriate, in keeping with the drainage hierarchy. Existing run-off rates off-site will be retained at existing levels or reduced.
- 4.23 All lighting installations will meet Institute of Lighting Professionals (ILP) Guidance Notes for the Reduction of Obtrusive Light 2020¹⁰.

Timescales

- 4.24 Site preparation and construction of the Proposed Development is anticipated to commence in 2028. It is anticipated that construction period will be 6 – 8 years, with the first occupation likely in 2029. The Proposed Development will be fully operational in 2036.

¹⁰ Institute for Lighting Professionals (2020). Guidance Note 01/20 for the Reduction of Obtrusive Light.

5. Technical Topics which are Not Significant

Introduction

- 5.1 As part of the EIA process and based on the information available to date, several technical topics have been identified for which a detailed assessment as part of the EIA is not justified and these topics are therefore proposed to be scoped out of further assessment.
- 5.2 The technical topics for which no likely significant environmental effects have been identified are:
- Built Heritage;
 - Archaeology;
 - Biodiversity;
 - Transport;
 - Noise and Vibration;
 - Air Quality;
 - Agricultural Land;
 - Water Environment;
 - Ground Conditions and Contamination;
 - Lighting;
 - Waste; and
 - Major Accidents and/or Disasters.
- 5.3 This chapter provides a summary of the baseline context for each topic and the rationale for scoping out.

Built Heritage

Baseline Summary

- 5.4 Full and detailed baseline information regarding the historic development and existing character of the Site and surrounding area and its contribution to the significance of heritage assets with potential to be affected by the Proposed Development is provided in **Appendix 5.1: Heritage Statement (Baseline)**.
- 5.5 To summarise, the Site comprises agricultural land which is demarcated by mature hedgerows and pockets of woodland, and has been characterised as such since at least the mid 19th century. The landscape surrounding the Site has a mixed character, with

generally open agricultural fields with occasional dwellings and farmsteads to the west and the suburban residential areas of Bamford and Norden to the east.

5.6 The Site does not contain any built heritage assets. There are however a number of designated and non-designated heritage assets located in proximity to the Site. These are:

- **Bamford United Reformed Church** (grade II listed building) – located approx. 90m to the south west of the Site;
- **Sundial in Bamford Chapel Graveyard** (grade II listed building) – located approx. 120m to the south west of the Site;
- **Bamford Chapel, Norden Road** (non-designated heritage asset) – located approx. 90m to the south west of the Site;
- **36-38 Norden Road** (non-designated heritage asset) – located approx. 45m to the south of the Site;
- **The Grapes, Norden Road** (non-designated heritage asset) – located approx. 220m to the east of the Site;
- **Hopwood Farm, Hollin Lane** (non-designated heritage asset) – located approx. 200m to the east of the Site;
- **Hollin Hall Cottage, Jowkin Lane** (non-designated heritage asset) – located approx. 10m to the west of the Site;
- **Mooredge Farm, Jowkin Lane** (non-designated heritage asset) – located approx. 30m to the west of the Site;
- **Higher Jowkin Farm, Jowkin Lane** (non-designated heritage asset) – located approx. 100m to the west of the Site;
- **Waterloo Farm, Jowkin Lane** (non-designated heritage asset) – located approx. 100m to the west of the Site; and
- **Scott House, Furbarn Road** (non-designated heritage asset) – located approx. 90m to the north of the Site.

5.7 The Bamford United Reformed Church is located in a defined plot to the west of Norden Road and Jowkin Lane. Within the graveyard to the south of the church is an individually listed sundial which dates to the early 19th century and adjoining the church to the east is Bamford Chapel. To the rear of the church are a number of later additions, some of which are of limited quality. The church, sundial and chapel are best experienced from within the defined churchyard plot, where the principal decorative frontage is visible and the buildings are legible as a group alongside the gravestones and enclosing boundary wall. Outside of the churchyard, the church and chapel are orientated away from Norden Road, and views of the buildings are filtered by trees. Views of the buildings from the north on Jowkin Lane are clearer, however this aspect

of the church has been extended and altered, and its architectural integrity has been diminished.

- 5.8 The Site is physically and visually separated from these assets by Jowkin Lane and 'Greens Nook', an intervening detached dwelling set within private enclosed grounds. Intervisibility between the Site and the assets is limited by this dwelling, hedgerows and mature trees along Jowkin Lane and within the churchyard. The Site forms part of the mixed setting of the church, which contains both agricultural land and a mix of modern and historic residential development. Taking account of the insular and secluded nature of the churchyard, which is the most important aspect of the setting of these assets and where their significance is best appreciated, and the limited intervisibility with the Site, the Site does not contribute to the significance of the assets.
- 5.9 36-38 Norden Road is a pair of stone-built late 18th or early 19th century traditional vernacular cottages situated on the south east side of Norden Road. The asset is situated at the back-of-pavement and perpendicular to Norden Road and is principally experienced in views along the street from the north and south. Despite being isolated and within a rural context at the time of construction, the asset is now experienced in a mixed environment which is predominantly suburban in character, alongside 20th century residential dwellings. There is some visual connectivity between the asset and the open rural landscape to the west of Norden Road, albeit filtered by hedgerows and trees.
- 5.10 The Grapes is a late 18th or early 19th century public house with later extensions situated on the west side of Norden Road. It is situated at the back-of-pavement and parallel with Norden Road, with a long principal frontage addressing the street. The building is set within a private plot which is surrounded to the north, east and south by a mix of traditional and modern suburban residential development. It is principally experienced from the east on Norden Road, where the architectural character of the building is best appreciated.
- 5.11 Hopwood Farm is a late 18th or early 19th century stone-built farmhouse located at the north end of Hollin Lane, now a private dwelling. A recently formed private yard area is enclosed by stone walls to the north of the building, and to the east is a three storey retirement living facility and further buildings in the vicinity of Norden Road. The north and west are playing fields and associated areas of car parking and changing facilities. Hopwood Farm is principally experienced from Hollin Lane, which is enclosed by mature hedgerows which channel views towards the asset and screen the neighbouring developments. The historic rural context of the farmhouse and its functional relationship with the surrounding agricultural landscape is no longer readily experienced, and the building now forms part of a mixed suburban landscape.
- 5.12 The Site is located to the north 36-38 Norden Road and west of The Grapes and Hopwood Farm, in each case beyond intervening buildings and boundary treatments which restrict intervisibility. These assets are experienced within a previously developed area of suburban residential character and do not derive significance from the open landscape within the Site.

- 5.13 Hollin Hall Cottage is a late 18th or early 19th century traditional vernacular stone-built cottage located on the west side of Jowkin Lane within a small, rectangular residential plot. The plot is surrounded on three sides to the north, west and south by the same agricultural field, and further agricultural land extends beyond this field as well as to the east of Jowkin Lane. The cottage is principally experienced from along Jowkin Lane to the north and south, and is visible in connection with the surrounding open landscape. These views support the ability to appreciate the rural location of the asset and its significance as a traditional rural cottage. There is likely to have been a historical connection between the asset and the surrounding fields through common ownership and function, but in the absence of tithe apportionment data, the extent of this relationship is unknown. Built development on the edge of Bamford and Norden is also visible from within the vicinity of the asset, and is experienced as part of a transitional location.
- 5.14 Mooredge Farm comprises a farmhouse and associated farm complex containing a number of ancillary buildings ranging in date from the late 18th or early 19th century. It is located to the west of Jowkin Lane at the end of a short private track. The complex is enclosed to the south and east by hedgerows and mature trees which restrict its visibility from Jowkin Lane. The asset is primarily experienced in views from within the surrounding fields, along public footpaths and tracks, many of which are filtered by hedgerows and the undulating topography. Where visible, Mooredge Farm is experienced in conjunction with the immediate surrounding fields which reflect its historic and traditional function as a farmstead with connections to the surrounding landscape through past ownership and use.
- 5.15 Higher Jowkin Farm comprises a farmhouse and surrounding farm complex with buildings ranging in date from the late 18th or early 19th century, including a number of modern buildings. The historic elements of the farm complex are a mix of brick and stone construction, and some are currently ruinous. The complex is located at the end of a private track which extends to the west of Jowkin Lane. The complex is surrounded by agricultural land and is primarily experienced in views from within the surrounding fields, along public footpaths and tracks. The immediate surrounding fields reflect the historic and traditional function of the complex as a farmstead with connections to the landscape through past ownership and use. The various buildings within the complex are arranged around a farmyard and have value as a group. However, the later, less significant elements of the complex are the largest and most visually prominent, and in some locations obscure views of the historic elements.
- 5.16 Waterloo Farm is a traditional farm complex located on the west side of Lower Jowkin Lane, south of the junction with School Lane. It comprises a principal two storey stone-built range and a smaller, single storey mono-pitch structure. The complex has been altered and supplemented with later extensions and additions, including modern stable ranges and a livery yard to the north. Waterloo Farm is principally experienced from close proximity on Lower Jowkin Lane and in the surrounding fields where its architectural character is best appreciated. It is also visible from within the surrounding landscape, including along public footpaths, and the adjoining fields and areas of woodland reflect its historic and traditional function as a farmstead with connections to the surrounding landscape through past ownership and use.

- 5.17 The Site forms part of the wider open landscape surrounding Hollin Hall Cottage and Mooredge Farm which supports the ability to appreciate their significance as rural dwellings and farmsteads. It is however separated from each of the assets by Jowkin Lane, and the mature hedgerows along the lane which restricts intervisibility. The Site forms part of the extended rural surroundings in which Higher Jowkin Farm and Waterloo Farm are experienced, and which contributes to an understanding of their historic rural context, albeit to a lesser degree given the intervening distance, hedgerows and undulating topography which restrict intervisibility. In reflecting the historic rural context of these assets and supporting the ability to appreciate their historic agricultural character and use, the Site is concluded to contribute to their significance. This contribution is stronger for Hollin Hall Cottage and Mooredge Farm due to their proximity to the Site.
- 5.18 Scott House was built in the early 20th century as a hospital and later became a children's home (the Memorial Home for Crippled Children). The building is two storeys in height and of a mix of coursed stone and mock Tudor timber frame construction with pitched natural slate roofs. It is located to the west of Furbarn Road and faces south across a lawned garden. To the north is a hard surfaced car parking area. The land surrounding the building's plot is mixed in character, with residential and other development to the north and east, and generally open and wooded land to the south and west. The Site is located to the south east of Scott House, beyond intervening fields and a series of large, detached dwellings within private grounds which restrict intervisibility. It forms part of the wider open landscape to the south of the asset but does not make a notable contribution to its significance as a former hospital or the ability to appreciate that significance.

Rational for Scoping Out

Change to the significance of designated heritage assets arising from development within their setting

- 5.19 Based on the assessment within **Appendix 5.1: Heritage Statement (Baseline)**, and as previously identified, the Site makes no contribution to the significance of the Bamford United Reformed Church or the sundial located in its grounds. The Proposed Development would result in change within the setting of the listed buildings, but would not be experienced from within the churchyard, where their significance is best appreciated. The Proposed Development would be in-keeping with the existing varied character of the setting of the listed buildings which contains a combination of open land and areas of traditional and modern residential development. Due to the location of the Site and the interposing built form, trees and hedges, construction activities within the Site would also not affect the significance of the listed buildings, and the ability to appreciate their special architectural and historic interest would be sustained.
- 5.20 Therefore, change to the heritage significance of designated heritage assets arising from development within their setting during the construction or operational stages is not considered to be significant and will not be considered further in the ES.

Change to the significance of non-designated heritage assets arising from development within their setting

- 5.21 Based on the assessment within **Appendix 5.1: Heritage Statement (Baseline)**, the Site does not contribute to the significance of Bamford Chapel as part of its setting. The Proposed Development would result in change within the setting of the non-designated heritage asset, but this would not be experienced from within the churchyard, where its significance is best appreciated. The Proposed Development would be in-keeping with the existing varied character of the setting of the asset which contains a combination of open land and areas of traditional and modern residential development. Due to the location of the Site and the interposing built form, trees and hedges, construction activities within the Site would also not affect the significance of the asset, and the ability to appreciate that significance would be sustained.
- 5.22 36-38 Norden Road is experienced as part of a varied and predominantly modern, residential environment alongside a mix of traditional and mid to late 20th century residential dwellings along Norden Road. The Proposed Development would introduce new dwellings on land to the north of the asset, but this would not impact upon the significance of the asset or the ability to appreciate that significance in key views taken along Norden Road. The Proposed Development would be in-keeping with the existing varied character of the setting of the asset, which has already experienced change. Intervisibility with the Site is also limited by the mature hedgerow on the west side of Norden Road. Construction activities in the Site would result in a temporary diminution in the quality of the setting of the asset, but this would not impact upon its significance or the ability to appreciate that significance.
- 5.23 The Grapes is experienced within a predominantly modern, residential context alongside mostly 20th century residential dwellings on Norden Road. Due to the screening effect of intervening buildings, there is limited intervisibility between the asset and the Site. The Proposed Development would therefore not be readily experienced in connection with the asset and would not detract from any key views of the asset from Norden Road. The asset does not draw any significance from the land within the Site, the character of which would be changed as a result of the development from largely open fields to a modern residential environment. Due to the location of the Site and the limited intervisibility, construction activities within the Site would also not affect the significance of the asset, and the ability to appreciate that significance would be sustained.
- 5.24 Hopwood Farm is principally experienced from Hollin Lane and views out from within the context of the asset are well contained by the surrounding built form and vegetation. The Proposed Development would introduce new dwellings on land to the west of the asset. However, due to intervening distance and screening effect of the intervening mature hedgerows, this would not impact upon the significance of the asset or the ability to appreciate that significance. Key views of the asset from Hollin Lane would also be unaffected and the character of its setting, which is already well developed with a mix of modern and traditional housing, would be sustained. Due to the location of the Site and the limited intervisibility, construction activities within the Site would also not affect the significance of the asset, and the ability to appreciate that significance would be sustained.

- 5.25 As previously described and set out in greater detail in **Appendix 5.1: Heritage Statement (Baseline)**, Hollin Hall Cottage, Mooredge Farm, Higher Jowkin Farm and Waterloo Farm derive some significance from their surrounding rural context which includes the open agricultural land within the Site boundary. The Proposed Development would introduce new dwellings on the land within the Site, changing its character from largely open fields to a modern residential environment. This will impact upon the heritage significance of the identified assets to varying degrees, dependent largely on the proximity and intervisibility of the new dwellings to the assets, and the extent to which the ability to appreciate the assets within their historic rural context is affected by the presence of the Proposed Development.
- 5.26 Hollin Hall Cottage and Mooredge Farm are located immediately adjacent to the Site and would be experienced in conjunction with the Proposed Development, including in key views from Jowkin Lane and the immediate surrounding fields and footpaths. Higher Jowkin Farm and Waterloo Farm are located further from the Site, and the Proposed Development incorporates primary mitigation in the form of development buffers which increase the distance between these assets and the proposed new dwellings, with intervening areas of retained and enhanced open space. In all cases, the heritage significance of the assets would be affected as a result of the change in character of their setting. However, the level of impact is considered to be limited in the context of their heritage significance as a whole, which is local and rooted primarily in their vernacular architectural character, form and materiality, and their historic interest as former rural dwellings and farmsteads and would not be of sufficient magnitude to constitute a potential significant environmental effect. Due to the proximity of the Site to the assets and their intervisibility, construction activities within the Site would cause a temporary diminution in the quality of the setting of the assets which would affect their significance, although for the same reasons would not constitute a significant environmental effect. The effects of the Proposed Development on the heritage significance of these assets would be proportionately assessed in the Heritage Statement to accompany the planning application.
- 5.27 As set out previously, the Site does not contribute to the significance of Scott House as part of its setting. The Proposed Development would introduce new dwellings within part of the setting of Scott House, which would be visible alongside the existing modern residential development in the vicinity of Furbarn Road and already experienced in connection with the asset. The Proposed Development would not affect the significance of Scott House which is rooted in its intricate mock Tudor frame construction and detailing, and its former use as a Victorian hospital and later children's home. It would also not impact upon key views of the asset from within its grounds, or the view south from the asset across the grassed lawn and towards the open fields beyond, which likely informed the original siting and orientation of the building. Due to the location of the Site and the limited intervisibility, construction activities within the Site would also not affect the significance of the asset, and the ability to appreciate that significance would be sustained.
- 5.28 Non-designated heritage assets are typically categorised as being of low sensitivity, as they are of local or regional interest, and, for the reasons set out above, change to the heritage significance of non-designated heritage assets arising from development

within their setting during the construction or operational stages is not considered to be significant and will not be considered further in the ES.

Archaeology

Baseline Summary

- 5.29 There are no designated heritage assets within the Site, however, several potential archaeological sites have been identified. An archaeological desk-based assessment¹¹ carried out in September 2021 (**Appendix 5.2**) established that the land within the Site was likely part of the Bamford Estate, which comprised Bamford Hall. The hall was first mentioned in the thirteenth century, during the reign of Henry III (1216-1272), when the estate was granted to Thomas de Bamford for his homage and service by Sir Adam De Bury. It is possible that medieval settlements, known as the Bamford Settlement and the Bagslate Moor Settlement, were located within close proximity to the Site. The Bamford Settlement was likely located in the area 250m to the southeast of the Site, whilst the Bagslate Moor Settlement was situated 300m to the northeast of the Site. The extent of these settlements is unknown, but it is possible that evidence of agricultural activities associated with the settlements may be identified within the Site.
- 5.30 The Site remained predominantly rural during the post-medieval period. A homestead known as Lower Jowkin may date to the seventeenth century, as evidenced in a will dated to 1688. A probate record dated to 22nd May 1731 also refers to a James Clough and references Lower Jowkin at Spotland, Rochdale. By 1853, Lower Jowkin was recorded as a ruined building located within the Site nearby the western boundary. The homestead was replaced by an eighteenth/nineteenth-century homestead of the same name, located at the junction between Lower Jowkin Lane and Jowkin Lane. The later homestead was demolished by 1893.
- 5.31 Other heritage assets within the Site include the Heywood Water Pipe, Mooredge Cottages, former field boundaries and cropmarks. The main water pipe of Heywood was constructed through the Site during the nineteenth century, running north to south through the central area of the Site. The line of the water pipe is depicted on the 1851 map (**Appendix 5.2**). The Mooredge Cottages are shown along the western boundary of the Site. By 1893, several of the field boundaries within the Site had been removed to allow for larger parcels of land and a reservoir was constructed nearby the eastern boundary of the Site, nearby Pitfield Mills.
- 5.32 A number of cropmarks are visible on the LiDAR data (**Appendix 5.2**). This appears to correspond with an area of sand and gravels identified on geological mapping. The area was likely quarried in the past and so the nature of the cropmarks is unknown. Some of the cropmarks may represent a former watercourse.
- 5.33 Geophysical survey (**Appendix 5.X**) of the Site found anomalies of a possible archaeological origin detected in the form of ditch features which follow Parish boundaries and have the potential to contain archaeological materials. Other undetermined anomalies could have a natural, agricultural, or archaeological origin.

¹¹ This report was prepared on the basis of the full allocation, and therefore the red line reflects a larger area than the Site. Whilst the report was prepared in 2021, it is considered to remain valid given the nature of data is likely to remain unchanged.

Anomalies relating to the agricultural use of the survey area were also detected in the form of ploughing trends, ditch and drainage schemes.

Rational for Scoping Out

Introduction

- 5.34 Geophysical investigations were undertaken in 2022 (**Appendix 5.3**). Some intrusive archaeological investigation of the Site will also be carried out in advance of development; the presence or absence of archaeological remains requires verification through archaeological evaluation, prior to development and, pending the extent and heritage significance of any surviving buried remains, further archaeological excavation may be required to mitigate the loss of buried remains during the proposed construction programme. The archaeological evaluation can be undertaken as part of a planning condition rather than as a part of the planning application. This will inform whether further mitigation in the form of archaeological excavation will be required to preserve archaeological remains by record.

Damage to or loss of remains of Lower Jowkin

- 5.35 As set out within **Appendix 5.2** Lower Jowkin may date to the seventeenth century is shown within the Tithe Map of Spotland, dated 1853, as a ruin. It is considered that Lower Jowkin may have remained derelict for several decades prior to 1853. Buried remains associated with Lower Jowkin are considered likely to survive within the Site due to the lack of subsequent development in and around the location of Lower Jowkin since its demolition.
- 5.36 The remains of Lower Jowkin are considered to be of low (local) value and are therefore not considered to be of significant archaeological or historical value. Sub-surface remains of seventeenth-century homesteads within rural areas are not considered to be rare and many were located within the region. Upstanding seventeenth-century homesteads hold value as rare assets, therefore, Lower Jowkin lost much of its historical value during demolition. The effect on Lower Jowkin is therefore not considered to be significant and will not be considered further within the ES.
- 5.37 Any effect would be mitigated prior to, or during, construction through excavation and preservation by record, secured by planning condition.

Damage to or loss of cropmarks

- 5.38 As indicated within **Appendix 5.2**, a number of cropmarks are visible on the LiDAR data which appear to correspond with an area of sand and gravels. The area was likely quarried in the past and so the nature of the cropmarks is unknown. It is possible that the cropmarks represent quarrying activity, which may have also damaged or removed archaeological remains in this area.
- 5.39 The nature of the cropmarks is unknown. If the cropmarks represent prehistoric activity, the assets would be of low (local) or moderate (borough) value and are therefore not considered to be of significant archaeological or historical value. It is likely that the cropmarks represent a former watercourse or quarrying activity, which would have no historical or archaeological value.

- 5.40 The effect on any cropmarks is therefore not considered to be significant and will not be considered further within the ES.
- 5.41 Any effect would be mitigated prior to, or during, construction through excavation and preservation by record, secured by planning condition.

Damage to or loss of remains of the homestead and garden

- 5.42 As identified within **Appendix 5.2** an eighteenth/nineteenth-century homestead was present within the Site, located to the south of the site of Lower Jowkin. It is likely that the homestead was a later building that replaced the former Lower Jowkin and took on the name of the previous homestead. The homestead was demolished by 1893. Buried remains associated with the homestead are considered likely to survive within the Site due to the lack of subsequent development in and around the known location of the homestead and gardens since its demolition.
- 5.43 The remains of the homestead are considered to be of low (local) value and are therefore not considered to be of significant archaeological or historical value. Eighteenth/nineteenth century homestead located within Greater Manchester are not considered rare, particularly as many remain upstanding. Therefore, the homestead lost much of its historical value during demolition. The effect on the homestead and garden is therefore not considered to be significant and will not be considered further within the ES.
- 5.44 Any effect would be mitigated prior to, or during, construction through excavation and preservation by record, secured by planning condition.

Damage to or loss of former field boundaries

- 5.45 Numerous historic field boundaries (which may include ditches and hedgerows) were removed during the nineteenth century and may survive within the Site boundary as linear features (**Appendix 5.2**). Remains of ditches associated with field boundaries may contain evidence of the post-medieval landscape, such as paleoenvironmental samples.
- 5.46 Remains of field boundaries containing paleoenvironmental evidence of the former landscape would be of low (local) value and are therefore not considered to be of significant archaeological or historical value. Documentary evidence from the nineteenth century already gives an insight into the historic field use of the area. Therefore, the effect on former field boundaries is therefore not considered to be significant and will not be considered further within the ES.
- 5.47 Any effect would be mitigated prior to, or during, construction through excavation and preservation by record, secured by planning condition.

Damage to or loss of historic landscape

- 5.48 The historic landscape within the Site is defined by field patterns established by 1851. The field boundaries likely represent piecemeal enclosure associated with historic farms. Within the site, some boundaries have been lost or straightened. Field boundaries comprised hedgerows in some areas.

- 5.49 The field boundaries within the site are of low value. The boundaries have been altered overtime and are not considered significant from an archaeological perspective. Therefore, the effect on historic landscape is not considered to be significant and will not be considered further within the ES.

Damage to or loss of remains of possible prehistoric remains

- 5.50 There is potential for prehistoric remains to be identified within the Site, based on cropmarks and the natural geology of the Site. No prehistoric remains have been identified previously within or nearby the Site, and therefore the potential is considered to be very low.
- 5.51 Prehistoric remains, if present, would be of low (local) or moderate (borough) significance. The effect of the Proposed Development on the remains can be mitigated through appropriate mitigation (as described below), which would lessen the impact of the Proposed Development on the archaeological asset. The effect, with mitigation, is considered to be not significant and will not be considered further within the ES.
- 5.52 Mitigation will include further investigation in the form of archaeological evaluation, which will identify the presence and significance of archaeological remains within the Site. Archaeological evaluation can be undertaken as a planning condition and will be informed by the results of the geophysical survey (**Appendix 5.3**).
- 5.53 The results of the geophysical survey and archaeological evaluation will inform a decision made in consultation with GMAAS on the future treatment of archaeological remains, which, if remains are present, would likely include the excavation of remains. This would allow remains to be preserved by record. Therefore, any effect would be mitigated prior to, or during, construction through excavation. Any necessary mitigation would be secured through a planning condition. The results of the excavation would be made publicly accessible and would enhance the understanding of the prehistoric period within Rochdale.

Damage to or loss of remains of possible medieval remains

- 5.54 There is potential for remains of medieval activity to be identified within the Site, based on the nearby locations of Bamford Hall, the Bamford Settlement, and Bagslate Moor Settlement. No medieval remains have been identified previously within the Site, however, the potential for remains associated with agricultural activities is considered to be moderate.
- 5.55 Medieval remains, if present, would be of low (local) or moderate (borough) significance. The most likely medieval remains to be identified is evidence of agricultural activity, such as ridge and furrow earthworks, which would have low (local) significance. The effect of the Proposed Development on the remains can be mitigated through appropriate mitigation (as described below), which would lessen the impact of the Proposed Development on the archaeological asset. The effect, with mitigation, is considered to be not significant and will not be considered further within the ES.
- 5.56 Mitigation will include further investigation in the form of geophysical survey and archaeological evaluation, which will identify the presence and significance of archaeological remains within the Site. Archaeological evaluation can be undertaken as

a planning condition and will be informed by the results of the geophysical survey (**Appendix 5.3**).

- 5.57 The results of the geophysical survey and archaeological evaluation will inform a decision made in consultation with GMAAS on the future treatment of archaeological remains, which, if remains are present, would likely include the excavation of remains. This would allow remains to be preserved by record. Therefore, any effect would be mitigated prior to, or during, construction through excavation and preservation by record. Any necessary mitigation would be secured through a planning condition in line with the NPPF. The results of the excavation would be made publicly accessible and would enhance the understanding of the medieval period within Rochdale.

Biodiversity

Baseline Summary

- 5.58 The Site comprises agricultural land varying from modified grassland to other neutral grassland. The fields are bounded by a mix of species poor native and species rich native hedgerow, some with trees. Details of designated sites within the zone of influence of the Site, habitats within the Site and the potential for protected and priority species are presented in **Tables 5.1 to 5.3** below. Based on professional judgement following consideration of the habitats within the Site; signs of species presence at the time of survey; and data search records, there are some species which are considered likely absent from the Site. These are not discussed below.
- 5.59 Habitats within the Site are common and widespread in the local context and the Site is not anticipated to support populations of protected or priority species of more than local importance.

Table 5.1: International Statutory Designated Sites within 10km of the Site, National Statutory Designated Sites within 2km of the Site and Non-statutory designated sites within 1km of the Site and their Reason for Designation

Name of Designation	Type of Designation	Distance from Site	Reason for Designation
Rochdale Canal	SAC/SSSI	3km South east	The Annex II species, floating water-plantain for which this is considered to be one of the best areas in the United Kingdom.

Name of Designation	Type of Designation	Distance from Site	Reason for Designation
South Pennine Moors Phase 2	SAC, SPA	8.6km East	Annex I habitats: European dry heaths, the moors support a rich invertebrate fauna and important bird assemblages. Blanket bogs, for which the site is this and dry heath habitat's most south-easterly (upland) location. Old sessile oak wood with Ilex and Blechnum in the British Isles. Annex I habitats also present but not qualifying features include Northern Atlantic wet heaths with <i>Erica tetralix</i> and transition mires and quaking bogs.
Naden Brook	SBI	0.15km West	A steep sided clough woodland with exposures of sandstone/shale cliffs. There are areas of both wet woodland and upland oak wood, both of which are UK Biodiversity Priority Habitats. Additional habitats include acid grassland, wet flushes and the unmodified river corridor. Common cowwheat <i>Melampyrum pratense</i> is also recorded, the only Rochdale record of this species.
Old House Croft and Mill Croft Brook	SBI	0.6km North west	A complex of woodlands along the course of two small brooks. The majority of the site has been identified as Ancient in the Ancient Woodland Inventory (Natural England). Such woodland is a UK Biodiversity Priority Habitat.
Meadow Croft Woods	SBI	0.7km South east	Deciduous woodland some of which is designated as ancient woodland.
Plumpton Wood	SBI	0.5km South	Broadleaved woodland, on steep slopes in places. The woodland is one of a series of woodlands along the River Roch corridor. The site is largely mature beech <i>Fagus sylvatica</i> woodland with frequent sycamore <i>Acer pseudoplatanus</i> and pedunculate oak <i>Quercus robur</i> and occasional horse chestnut <i>Aesculus hippocastanum</i> . Plumpton Wood SBI supports various birds which have been observed including wildlife (including UK Biodiversity Priority Species). Sixty-nine species of fungi have been recorded.

Name of Designation	Type of Designation	Distance from Site	Reason for Designation
Ashworth Valley	SBI	0.8km South west	A diverse area of clough woodland, scrub, heath, grassland and flushes. It includes Ancient Woodland and supports a number of UK Biodiversity Priority species, such as skylarks and song thrushes
Springfield Wood	SBI	0.9km South east	A semi-natural broadleaved woodland some of which is ancient, which has good accessibility and usage and is a valuable habitat and community resource
Queen's Park Lake	SBI	0.9km South	Site of large Heronry.
Meadow by Heywood Cemetery	SBI	1km South east	Meadow and marshy grassland habitat
Tack Lee and Gristlehurst Woods	SBI	1km South west	Upland oak woodland that forms part of an important complex of ancient woodlands.

Table 5.2: Habitats within the Site Boundary (see Figure 5.1¹² for locations)

Habitat	Description	Photograph
Modified grassland g4	Three fields within the centre of the Site are cut for silage and nutrient enriched, with perennial rye grass dominant, broad leaved dock and creeping buttercup abundant. All fields were assessed to be in poor condition.	

¹² Since the UK habitat survey was undertaken, as presented on **Figure 5.1**, the boundary for the purpose of the EIA has been extended into the carriageways, where required. These areas will be subject to further survey, however, they are anticipated to comprise developed land, sealed surface, and therefore, not alter the ecological value of the baseline.

Habitat	Description	Photograph
Other neutral grassland g3c	The rest of the Site comprised other neutral grassland, still grass dominated, with an abundance of perennial rye grass. However, additional grasses were present. Most fields were poor condition, other than two fields to the south of the Site in moderate condition.	
Mixed scrub h3h	Small areas of scrub were present to the south of the Site, encroaching from the boundary, comprising bramble and hawthorn.	
Native hedgerow Native species-rich hedgerow Native species rich hedgerow with trees with bank or ditch Native species rich hedgerow with trees	A variety of hedgerow types are present within the Site. All hedgerows comprise at least 80% native woody species and would qualify as Priority habitat in accordance with the JNCC definition ¹³ .	

¹³ <https://data.jncc.gov.uk/data/ca179c55-3e9d-4e95-abd9-4edb2347c3b6/UKBAP-BAPHabitats-17-Hedgerows.pdf>

Table 5.3: Potential Protected Species within the Site Boundary

Protected Species	Description
Amphibian (including great crested newt)	There are no ponds within the Site boundary. There was a depression holding water on Site, but this dried early in the spring and supported no aquatic plants. There is a fishing pond 230m north west of the Site. Surveys undertaken by TEP in 2021 concluded a poor habitat suitability index (HSI) and an eDNA survey came back negative for great crested newts (GCN). While there is some suitable terrestrial habitat within the Site, given the absence of ponds within site or within 250m of the Site (with records of GCN), GCN are considered absent from the Site. The Site may support small numbers of toad, but it is considered unlikely.
Badger	The semi-improved grassland fields together with hedgerows and tree cover offer moderate foraging and commuting habitat to badger. Historical surveys (undertaken by TEP in 2021 and 2022) found evidence of commuting badger with one potential sett, which following extensive monitoring (including using cameras), was found not to be in active use by badger. Badgers readily excavate new setts, and update surveys are required, however, it is unlikely that a main sett is likely to be recorded given the habitats present and limited historical use of the Site.
Birds	Historical surveys undertaken by TEP in 2022 found 24 confirmed, probable and possible breeding bird species. Based on the species recorded, the population was considered common and widespread and of local importance. The bird species identified were largely confined to the hedgerows within Site.
Bats	The Site offers commuting and foraging habitat for bats, particularly along linear features such as hedgerows and hedgerows with trees. There are also a number of mature trees that may offer potential roosting opportunities. Surveys undertaken by TEP in 2021, 2022 and 2023 found 22 trees had potential to support roosting bats, but nocturnal surveys in 2021 and 2023 did not identify any active tree roosts. Bat activity surveys and static remote monitoring found relatively low levels of activity of common and widespread species, including common and soprano pipistrelle and brown long eared bat. Activity was confined to linear features, predominantly along Jowkin Lane. The Site is considered to be of local importance for bats.
Reptiles	There was only one record of a possible common lizard, located nearly 1km south west of the Site, returned in the local record search. Given the urban/suburban nature of the Site and the limited suitable habitat, given the disturbance to grassland from silage cuts and grazing, as well as the geographical location of the Site, reptiles are considered absent from Site.

Protected Species	Description
Water vole and otter	There are no watercourses within or adjacent to the Site and the Site does not serve as a commuting link between any watercourses. These species are considered absent from the Site.

- 5.60 Update GCN, badger, breeding bird and bat activity and roost surveys are ongoing in 2026. To date, survey results have verified previous survey data.

Rational for Scoping Out

Disturbance to designated sites, habitats and protected species

- 5.61 Given the distance from the Site to the International and National designated sites within the zone of influence and the lack of hydrological connectivity, no impacts to designated sites are anticipated and no detailed Appropriate Assessment is required. Naden Brook SBI is located only 0.15km west of the Site, however, it is not hydrologically connected and impacts during construction can be managed through the Construction Environmental Management Plan (CEMP). This will include pollution prevention measures and sensitive timing of works. Impacts from additional residents are not anticipated due to the lack of public rights of way from the Site to Naden Brook. If residents walk the busy roads to Naden Brook, there is a well-managed bridleway through the Site that could accommodate additional footfall. The other non-statutory designated sites are considered sufficiently distant to not result in any impacts from the Proposed Development.
- 5.62 As set out in **Chapter 4**, linear features will be retained and suitably buffered, with the exception of access points, to maintain existing commuting, nesting and foraging opportunities across the Site. Where there are enhancement opportunities for these linear features, these will be included in the Proposed Development, with ongoing 30 year management, in accordance with Biodiversity Net Gain (BNG) legislation, to be secured via a Section 106 Agreement. As set out in **Chapter 4**, there is provision for a significant area of green infrastructure along the western boundary of the Site, with the opportunity to enhance the condition of retained grassland and plant more trees and linear features, also to be subject to 30-year management in accordance with BNG legislation, to be secured via a Section 106 Agreement.
- 5.63 While the Proposed Development will result in the loss of large areas of semi-improved grassland, this habitat is common and widespread and is not considered to support protected or priority species. Areas of medium distinctiveness grassland will be retained and enhanced to achieve the best possible floristic diversity and ecological condition. In accordance with advice from RBC, the Proposed Development will provide connectivity along the west of the Site to accord with the LNRS objectives.
- 5.64 The Site is considered to support a common assemblage of bird and bat species of no more than local importance. No GCN or other amphibians, reptiles, otter or water vole are present within the Site. Badger may be present in very low numbers, foraging and commuting only. The habitat supporting the bird and bat species are the linear

features and scattered trees, which will be retained and suitably buffered, where possible, as part of the Proposed Development. Potential impacts from construction can be dealt with via pre construction checks and implementation of a robust CEMP, as detailed below. Impacts during operation can be avoided through a suitable lighting scheme (**Chapter 4**), therefore, no significant impacts to protected or priority species are expected as a result of the Proposed Development.

- 5.65 Potential construction and operational effects will be avoided or reduced through embedded design measures and standard construction good practice, including:
- Pre-commencement ecological checks, where required, such as for badger;
 - Implementation of a CEMP, to include the following:
 - Timing of vegetation clearance outside the main bird nesting season where practicable, or following inspection by a suitably qualified ecologist;
 - Protection of retained habitats and any adjacent ecological features through appropriate fencing and construction exclusion zones; and
 - Control of dust, noise and surface water runoff during construction.
 - Sensitive site lighting design to avoid unnecessary light spill onto retained habitats, commuting routes and Site boundaries;
 - Precautionary working methods in relation to protected and notable fauna, where appropriate;
 - Enhancement of retained habitats, reinstatement and landscaping using appropriate native species, where relevant, subject to a 30-year management in line with BNG requirements.
- 5.66 These measures are standard practice for development of this nature and will be secured through the design process, planning condition and Section 106, as appropriate.
- 5.67 The Proposed Development will not result in likely significant effects on statutory designated sites, irreplaceable habitats, priority habitats of material extent, or protected species populations of more than local importance. Therefore, effects to biodiversity are not considered to be significant and will not be considered further in the ES.

Transport

Baseline Summary

- 5.68 Norden Road is a single carriageway local distributor road that provides access to the settlements of Norden and Bamford and other locations to the west of Rochdale.
- 5.69 Norden Road forms a junction with the B6222 Bury and Rochdale Old Road at a traffic signal-controlled junction approximately 400m to the south-west of the Site. War Office Road provides an alternative route between Norden Road and the B6222. A

priority-controlled junction of Norden Road and War Office Road is located approximately 50m to the north-east of the Norden Road site frontage.

- 5.70 The B6222 is a single carriageway road that connects Rochdale and Bury town centres, providing an alternative east-west route to the A58, which forms part of Greater Manchester's Key Route Network (KRN). The A58 provides wider access to the KRN and the Strategic Road Network (SRN) that is managed by National Highways.
- 5.71 Along Norden Road, there are street lit footways on both sides of the road. Approximately 400m north east of the Site, there is a signalised pedestrianised crossing of Norden Road which provides access Bamford Precinct local centre.
- 5.72 To the north of the Site, Norden Village local centre is also within a reasonable walking distance of the Site (c.1.1km). The most direct route is along Furbarn Road (a designated quiet lane) and consists of a combination of traffic free paths and quiet streets (including some streets without formal footway provision).
- 5.73 Within the Site, there is currently a network of footpaths which provides connection to nearby residential streets and associated key facilities including the existing sports pitches. The footpaths do not have formalised surfacing and are not lit. The footpaths also connect to a Bridleway that runs along Jowkin Lane to the west of (but outwit) the Site.
- 5.74 There are some existing cycle facilities within the local transport network. Furbarn Road provides a traffic free route for cyclists between Clay Lane and Whittaker Moss primary school (covering approximately half of the journey from the site to Norden Village). Between the Site and Bury Old Road local centre there are a number of low traffic speed limit streets that will be conducive to inclusive cycling. Bury Road has painted cycle lanes along much of its length. Queen's Park Road has a shared footway cycleway for a section, and it crosses over the River Roch.
- 5.75 Norden Road is the primary bus corridor serving the Site and runs along the frontage of the Site. Buses travel along the section of Norden Road to the north-east of War Office Road and subsequently along War Office Road towards Bury Road. North-east bound services stop on Norden Road. This stop is marked with a flagpole, an on-carriageway cage as well as having a lay-by. South-westbound services stop on War Office Road. This stop has a lay-by, shelter and seating. Both stops are within approximately 100m of the Site access.
- 5.76 A summary of the timetables is provided below.

Table 5.4: Bus Timetable Summary

Service No.	Route	Approximate Frequency					
		Mon-Fri		Saturday		Sunday	
		Daytime	Evening	Daytime	Evening	Daytime	Evening
17	Rochdale - Manchester	10 mins	15 mins	10 mins	15 mins	15 mins	30 mins
163A	Suddeon - Manchester	1 service	1 service	-	-	-	-
433	Northern - Bury	60 mins	120 mins	60 mins	120 mins	120 mins	-
442	Northern - Rochdale	60 mins	60 mins	60 mins	60 mins	60 mins	60 mins
467	Bury - Rochdale	30 mins	60 mins	30 mins	60 mins	30 mins	60 mins

- 5.77 As shown in Error! Reference source not found., there are a number of regular bus service which serve a range of locations locally and within Greater Manchester. The services have a good level of frequency, with some being up to one service every 10 minutes.
- 5.78 Rochdale Interchange is located within Rochdale town centre. The station can be accessed from the Site via bus (to Rochdale Bus Station and changing to Metrolink or walking) or cycling. Rochdale station also has a large free-to-use park and ride car park. The interchange has both railway and Metrolink services. Rochdale Railway Station has frequent rail services to key destinations including Manchester and Leeds as well as more local destinations such as Blackburn. The railway station also has secure cycle parking with capacity of up to 16 spaces. Journey times to Manchester City Centre are as short as 12 minutes. Metrolink provides direct services to other local destinations such as Kingsway Business Park, Oldham as well as Manchester City Centre every 12 minutes with the service terminating at East Didsbury.

- 5.79 For the latest 5 year period for which data is available, nine slight collisions and two serious collisions occurred within the vicinity of the Site. All the collisions are spread out and not isolated to a junction (**Figure 5.2**).
- 5.80 The available data suggests that there are no safety concerns on the local highway network or design features that might be contributing to the occurrence of accidents on the network in the vicinity of the Site.

Rational for Scoping Out

Increase in traffic during construction and operation

- 5.81 The Institute of Sustainability and Environmental Professionals' (ISEP, formerly IEMA) Guidelines: Environmental Assessment of Traffic and Movement¹⁴ sets out two broad rules that should be taken into account in assessments, as follows:
- Rule 1 – include highway links where traffic flows will increase by more than 30% (or the number of HGVs will increase by more than 30%); and
 - Rule 2 – include highway links of high sensitivity where traffic flows have increased by 10% or more.
- 5.82 Where the predicted increase in traffic flows is lower than these thresholds, the guidelines suggest that the effects will be negligible, and no further assessment is required.
- 5.83 Traffic surveys have been undertaken to identify baseline levels of average annual daily traffic (AADT) flows on the network. These are presented in **Table 5.5** alongside the forecast increase in traffic flows on each of these links associated with the Proposed Development.
- 5.84 It should be noted that as per the ISEP Guidance, the baseline flows do not include for committed development traffic. Inclusion of this traffic in the baseline flows (i.e. a future baseline) would result in the percentage increase due to the Proposed Development reducing, so **Table 5.5** represents a worst case.

Table 5.5: Forecast Traffic Flows

Link Ref	Location	AADT	Development Traffic (AADT)	% Change
1	A680 Edenfield Road (East of Bagslate Moor Road)	19,637	248	1.3%
2	A680 Edenfield Road (West of Bagslate Moor Road)	14,890	0	0.0%

¹⁴ Environmental Assessment of Traffic and Movement (2023), The Institute of Sustainability and Environmental Professionals (formerly Institute of Environmental Management and Assessment)

Link Ref	Location	AADT	Development Traffic (AADT)	% Change
3	Bagslate Moor Road (North of Moorland Avenue)	10,526	248	2.4%
4	Moorland Avenue	4,466	70	1.6%
5	Bagslate Moor Road (South of Moorland Avenue)	14,804	318	2.1%
6	Martlet Avenue	2,768	0	0.0%
7	Norden Road (North of War Office Road)	14,603	318	2.2%
8	War Office Road (South of Norden Road)	3,023	480	15.9%
9	Norden Road (South of War Office Road)	12,126	797	6.6%
10	Site Access	0	1,575	N/A
11	Norden Road (South of Site Access)	12,628	778	6.2%
12	B6222 Bury Road (East of War Office Road)	15,524	480	3.1%
13	Sandhole Lane	13	0	0.0%
14	B6222 Bury Road (West of War Office Road)	27,306	778	2.8%
15	War Office Road (opp. Sandhole Lane)	3,281	480	14.6%
16	Queen's Park Road	15,061	639	4.2%
17	B6222 Bury and Rochdale Old Road (West of Queens Park Road)	14,522	138	1.0%

- 5.85 As demonstrated in **Table 5.5**, the forecast increase in traffic flows on all links is well below the 30% threshold set out in Rule 1 of the ISEP Guidance.
- 5.86 Only two links are forecast to have increases in traffic flow of above 10%. Based upon consideration of Rule 2 of the ISEP Guidance, these links are not considered to be of a 'high sensitivity'. There are no specific concentrations of vulnerable users on these links, the links all have footways on both sides of the carriageway and the collision data reviewed does not indicate any road safety concerns.

- 5.87 On that basis and as per the ISEP Guidance, it is concluded that the environmental effects on all links will be negligible and not significant, and will not be considered further in the ES.
- 5.88 Notwithstanding this, it should be noted that the transport impacts of the Proposed Development on all of the above links will be robustly assessed through a Transport Assessment which will be submitted for the approval of TfGM and RBC alongside the planning application. As such, any impacts on existing road users in terms of delays and highway safety will be appropriately reviewed, assessed and mitigated where appropriate through the planning process.
- 5.89 During construction, the Proposed Development will generate traffic flows including HGVs. It is envisaged that construction will start on site in 2028 and be completed by 2034. Whilst the rate at which the dwellings will be built will depend on market conditions, it is estimated that, overall, the Proposed Development will take approximately 7 years to complete with an average of 50 dwellings being constructed each year. The standard working hours for all construction activities will be agreed as part of the CEMP but is expected to be from 08:00 to 18:00 Mondays to Fridays and 08:00 to 14:30 on Saturdays. It is assumed that many of the construction staff vehicle movements will take place at the beginning and end of each day. The HGV deliveries are assumed to be spread across the day and will be timed, where possible, to avoid the peak traffic flow periods (i.e. 08:00 to 09:00 and 17:00 to 18:00).
- 5.90 The number of vehicle movements resulting from the construction stage is difficult to estimate accurately at this stage and will vary throughout the construction period, depending on the activities taking place. **Table 5.6** shows the estimated peak daily construction traffic movements for the earthworks and construction stages, which are likely to generate the most traffic. Wherever possible, material will be retained and redistributed on site to minimise the volume of material imported and / or exported and associated construction traffic.

Table 5.6: Forecast Construction Movements

Vehicle Classification	Daily two-way movements
Cars	20
LGV	50
Plant	10
HGV	20
All vehicles	90

- 5.91 In terms of impact, Norden Road will be used by all construction traffic before it disperses onto other routes. It is anticipated that most HGVs will travel to access the M62 using approved routes as defined in the CEMP. Norden Road has a daily flow of c.12,600 vehicles close to the proposed site access, so the additional maximum of 45 delivery vehicles (i.e. 90 two-way trips) equates to an increase of 0.7%. There are forecast to be 133 HGVs per day on Norden Road, meaning that the 30 plant and HGV

movements generated during construction would represent a 22.5% increase. It should be noted that this assumes that all construction vehicles travel to/from Bury Road to the south as a worst case. Subject to the CEMP, construction vehicles may also travel to/from Edenfield Road to the north, which would reduce the proportional increase in traffic and HGVs on these routes.

- 5.92 The impacts on Bury Road and construction routes to the M62 will be proportionally lower than this due to the higher flows (of both total vehicles and HGVs) on these roads and the dispersal of trips moving away from the site. In addition, as outlined above, not all vehicles will be HGVs and around 70 two-way trips will be made by cars and LGVs, which would be likely to disperse across a wider area, further reducing the number of trips to and from the M62 and reducing the percentage increase on any individual link.
- 5.93 The maximum predicted increase in vehicle flows during construction will be below 1%, which is well below both the thresholds for further assessment identified in the ISEP guidance. Similarly, the increase in HGV movements will be below 30%. Any increases in traffic due to construction will be temporary in nature. While no significant effects during construction are predicted, a construction traffic management plan (CTMP) as part of the CEMP is likely to be required by a condition attached to any planning permission. This will define the number, distribution and types of construction vehicles expected and will include details of routing to prevent the use of inappropriate routes by HGVs and delivery timings to ensure that HGV deliveries avoid the peak hours.
- 5.94 As a result, it is concluded that the environmental effects on all links during construction will be negligible and not significant and will not be considered further in the ES.
- 5.95 In relation to PRoWs, as set out in **Chapter 4**, all PRoWs will be retained in situ during operation, with some proposed for enhancements. Where possible, all PRoWs will remain open throughout the construction stage. However, where necessary, some sections may be temporarily closed or diverted (and these will also be subject to Order approval/s). Any requirement for closures or diversions during construction will be short term and during operation PRoWs will operate as normal. Therefore, effects to pedestrian amenity or delay are unlikely to be significant and will not be considered further in the ES.

Air Quality

Baseline Summary

- 5.96 The Site is not located within an air quality management area (AQMA)¹⁵. The closest AQMA, the Greater Manchester Combined Authority (GMCA) AQMA, is approximately 390m south of the Site on Bury and Rochdale Old Road (B6222). The GMCA AQMA has pockets of AQMA across the 10 districts of Greater Manchester and was declared in

¹⁵ Department for the Environment Food and Rural Affairs (Defra) online tool Air Quality Management Areas interactive map see: <https://uk-air.defra.gov.uk/aqma/maps> [Accessed: 07/2026]

2016 for exceedances to the NO₂ annual mean objective. The location of the Site in relation to the AQMA is shown in **Figure 5.5**.

- 5.97 RBC has one automatic monitoring station, RDL001, which monitors NO₂, PM₁₀ and PM_{2.5}. RBC has 27 NO₂ diffusion tube sites across its borough¹⁶. The closest monitoring site is approximately 1.9km south of the Site; therefore, there are no monitoring sites that are representative of conditions at the Site.
- 5.98 There are three background monitoring sites, 10 roadside sites, and one kerbside site within 3km of the Site, all of which are diffusion tubes. The locations of these diffusion tubes are shown in **Figure 5.5**, and their results are provided in **Appendix 5.6**. 2025 is the latest annual data record available. Since 2021, the annual mean concentrations of NO₂ at all of the identified monitoring sites were below the annual mean objective.
- 5.99 Of the three background monitoring sites, two, RO7A and RO24, are not considered to be representative urban background sites due to their location. RO7A is located adjacent to the B6452 and A58 junction, and RO24 is located on the roadside of the A664. Therefore, it was concluded that their locations do not fit the TG22¹⁷ classification *“An urban location distanced from sources and therefore broadly representative of city-wide background conditions, e.g. urban residential areas”*. RO10A is located on a minor road that has residential and commercial use. Therefore, it was deemed a suitable urban background site.
- 5.100 In addition to the monitored background concentrations, background concentrations of NO₂, PM₁₀ and PM_{2.5} were obtained from the background concentration maps provided by Department of Environment Food and Rural Affairs (Defra) for the grid squares covering the Site and receptor locations¹⁸. The Defra background concentrations for 2025, shown in **Appendix 5.6**, are well below the annual mean objectives.

Rationale for Scoping Out

Nuisance and disturbance as a result of dust from construction activities [human and ecological receptors]

- 5.101 There has been no requirement to consider ecological receptors within the dust assessment. There are no statutory nor non-statutory designated ecological receptors within: 50m of the Site; 50m of route(s) used by construction vehicles on the public highway; or/and up to 250m from the Site entrance(s). Therefore, following IAQM guidance¹⁹, ecological receptors can be ‘screened out’ of the dust assessment.
- 5.102 Demolition and construction activities have the potential to result in nuisance and/or adverse health effects due to dust deposition arising from on-site demolition activities,

¹⁶ Greater Manchester Combined Authority (GMCA), (2026) 2025 Air Quality Annual Status Report (ASR)

¹⁷ Defra (2022). Local Air Quality Management Technical Guidance Document LAQM.TG(22)

¹⁸ Defra <https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2021> [Accessed: 07/2026]

¹⁹ Institution of Air Quality Management, 2024. Guidance on the assessment of dust from demolition and construction v2.2

construction activities, resulting in the soiling of surfaces; visible dust plumes and elevated PM₁₀ concentrations as a result of dust generating activities on-site.

- 5.103 It is anticipated that dust and particulate matter emissions produced during construction activities would be controlled through the implementation of a Construction Environmental Management Plan (CEMP). The dust measures in the CEMP will be informed by the IAQM Guidance¹⁹ and would include prevention measures, such as screening stockpiles of materials and dampening exposed soils as appropriate, and set out requirements for ongoing monitoring and liaison with the local community and RBC. These tertiary mitigation measures would be considered an integral part of the Proposed Development and considered as part of the Environmental Management Plan. The IAQM construction dust methodology, assessment and mitigation are presented in **Appendix 5.7**.
- 5.104 Therefore, nuisance and disturbance as a result of dust from construction activities is unlikely to be considered significant and will not be considered further within the ES.

Changes to local air quality as a result of emissions from construction traffic [human and ecological receptors]

- 5.105 Environmental Policy Implementation Community (EPIC) and IAQM guidance indicates that, outside an AQMA, changes in traffic flows of less than 500 light duty vehicles (LDV) AADT and 100 heavy duty vehicles (HDV) AADT are unlikely to result in significant air quality effects. Within an AQMA, screening criteria of 100 LDV AADT and 25 HDV AADT apply. The Site is located outside of an AQMA, and the total construction traffic (**Chapter 4**) is below the screening criteria for roads outside of an AQMA. However, there is an AQMA along Bury and Rochdale Old Road (B6222) at the Norden Road and B6222 junction. The LDV traffic associated with the construction stage is below the applicable screening criteria both within and outside an AQMA. Furthermore, the LDV trips would be distributed across all available routes to and from the Site.
- 5.106 HDV trips will be managed by the CTMP, which will define the number, distribution and types of construction vehicles expected and will include details of routeing to prevent the use of inappropriate routes by HGVs and delivery timings. The HDV route will be via Norden Road and may include both a northern and southern route, thereby splitting the HDV flows, such that increases on individual road links would remain below the applicable screening criteria. Furthermore, even under a reasonable worst-case scenario whereby all of the construction HDV flows travel south towards the AQMA, the temporary nature and limited scale of construction traffic are not considered likely to result in significant adverse air quality effects.
- 5.107 Therefore, changes to local air quality as a result of emissions from construction traffic are not considered to be significant and will not be considered further in the ES.

Changes to local air quality as a result of emissions from operational traffic [human receptors]

- 5.108 Air quality modelling has been undertaken. Predicted annual mean concentrations of NO₂, PM₁₀ and PM_{2.5} (when assessed against the current baseline, and including the Proposed Development and cumulative development) were modelled to have an increase of less than 1% of the relevant AQALs at all existing sensitive receptors

assessed. The Proposed Development is therefore reported to have a negligible impact on concentrations of NO₂, PM₁₀ and PM_{2.5}.

- 5.109 Concentrations of NO₂, PM₁₀ and PM_{2.5} have also been modelled for proposed receptors and will be below the annual mean objectives, and 1-hour and daily mean objectives where relevant.
- 5.110 Therefore, changes to local air quality as a result of emissions from operational traffic on human receptors is not considered to be significant and will not be considered further in the ES.
- 5.111 An Air Quality Assessment will be submitted with the Application.

***Changes to local air quality as a result of emissions from operational traffic
[ecological receptors]***

- 5.112 The nearest statutory ecological site designated for its habitats is the Rochdale Canal Special Area of Conservation (SAC), located approximately 3km south east of the Site. Potential air quality effects on ecological receptors from road traffic emissions are typically considered where a designated site is located within 200m of affected roads and where the development would result in a material increase in traffic flows.
- 5.113 Traffic associated with the Proposed Development may use roads within 200m of the Rochdale Canal SAC; however, total traffic flows on these road links are expected to remain substantially below the screening threshold of 1,000 AADT. On this basis, no likely significant air quality effects on ecological receptors have been identified from operational traffic emissions. Therefore, the effects of operational traffic emissions on ecological receptors in terms of air quality will not be considered further within the ES.

Operational combustion sources

- 5.114 The Proposed Development comprises residential dwellings heated by electricity and does not include gas-fired boilers or other domestic combustion appliances. Consequently, the operation of the Proposed Development will not give rise to emissions from combustion sources. Therefore, operational combustion emissions are scoped out of the EIA, as no likely significant effects are anticipated, and will not be considered further within the ES.

Noise and Vibration

Baseline Summary

- 5.115 Baseline sound monitoring is required to determine the representative baseline sound levels in and around the Site, and at existing and proposed noise sensitive receptors (NSRs).
- 5.116 Previous baseline sound surveys were carried out in July 2021, as shown on the plan provided in **Figure 5.3**. Baseline sound levels were typical of the area, with levels affected by noise from Norden Road, Edenfield Road (A680), Bury and Rochdale Old Road (B622), and York Street (A58).
- 5.117 New baseline sound surveys are currently being arranged, as shown on the plan provided in **Figure 5.4**.

- 5.118 Long-term baseline sound surveys (up to a period of 7 days) are proposed at three monitoring positions (MP), including:
- MP#1 – on the eastern boundary, adjacent to the playing fields/grass pitches;
 - MP#2 – on the eastern boundary, adjacent to Bridge JFC Football Club, Rochdale Tennis Club, and Bamford Fieldhouse Cricket Club parking, clubhouse, and welfare facilities (pavilion); and
 - MP#3 – on the southern boundary, adjacent to Norden Road.
- 5.119 Short-term baseline sound surveys (up to a period of 3 hours) are proposed at two monitoring positions (MP), including:
- MP#4 – on the western boundary, adjacent to Jowkin Lane;
 - MP#5 – on the northern boundary, adjacent to Furbarn Road; and
 - MP#6 – on the western boundary, adjacent to Lower Jowkin Lane.

Strategic Noise Maps

- 5.120 Strategic Noise Mapping for England²⁰ is available for the Site and surrounding area but only includes the road and rail network. The maps do not include other noise sources, such as neighbourhood noise, commercial noise, industrial noise, or agricultural noise, and may therefore underestimate the actual noise levels across the Site.
- 5.121 According to the Strategic Noise Maps, during the daytime period (07:00 to 23:00 hours), noise levels are likely to range up to:
- 55 dB L_{Aeq} across the majority of the Site; with
 - A 30 m band, up to 65 dB L_{Aeq} adjacent to Norden Road;
 - A 20 m band, up to 65 dB L_{Aeq} adjacent to Furbarn Road; and
 - A 5 m band, up to 60 dB L_{Aeq} adjacent to Jowkin Lane / Lower Jowkin Lane.
- 5.122 According to the Strategic Noise Maps, during the night-time period (23:00 to 07:00 hours), noise levels are likely to range up to:
- 45 dB L_{Aeq} across the majority of the Site; with
 - A 15 m band, up to 55 dB L_{Aeq} adjacent to Norden Road; and
 - A 10 m band, up to 50 dB L_{Aeq} adjacent to Furbarn Road.

²⁰ Department for Environment Food and Rural Affairs (DEFRA) (2023) 'Strategic Noise Mapping'. 'Road Noise – All Metrics – England – Round 4', DEFRA.
Last Accessed: 14 July 2026 <https://environment.data.gov.uk/explore/562c9d56-7c2d-4d42-83bb-578d6e97a517?download=true>

5.123 All distances are approximate and will be verified as part of the baseline sound surveys.

Noise and Vibration Sources

5.124 An initial desk-top assessment has identified the following existing noise sources:

- Road Noise – from the local road network; there are no significant road networks close to the Site;
- Leisure Noise – from the local sports facilities;
- Employment Noise – including industrial noise, commercial noise, agricultural noise, plant noise, machinery noise, equipment noise, vehicle noise, etc and
- Neighbourhood Noise – including music, DIY, gardening, dogs barking, dog walkers, residents talking, etc.

Table 5.7: Summary of Noise and Vibration Sources

Noise Source	Direction	Distance*	Description
Road Noise	South-east	0m	Norden Road forms the south-east boundary; a 2-lane, 2-way road, with a speed limit of 30 mph.
	South-west	0m	Jowkin Lane forms the south-west boundary; a rural/semi-rural single carriageway.
	West	0m	Lower Jowkin Lane forms the west boundary; a rural/semi-rural single carriageway.
	North-west	0m	Furbarn Road forms the north-west boundary; a rural/semi-rural single carriageway.
	South	350m	Bury and Rochdale Old Road (B622), located to the far south of the Site.
	North	930m	Edenfield Road (A680), located to the far north of the Site.
Leisure Noise	East	0m	Bridge JFC Football Club, with associated parking, clubhouse, and welfare facilities (pavilion), located to the immediate east of the Site.
	East	0m	Bamford Fieldhouse Cricket Club, with associated pitch, parking, clubhouse, and welfare facilities (pavilion), located to the immediate east of the Site.

Noise Source	Direction	Distance*	Description
	East	0m	Rochdale Tennis Club, with associated courts, parking, clubhouse, and welfare facilities (pavilion), located to the immediate east of the Site.
Employment Noise	East	80m	The Grapes at Bamford public house, located to the far east of the Site.
	South-west	140m	Butterworth Farm and equine yard, located to the south-west of the Site.
	West	35m	Mooredge Farm, located to the west of the Site, off Jowkin Lane.
	West	90m	Lower Jowkin Farm, located to the west of the Site off Lower Jowkin Lane.
	West	100m	Waterloo Farm and Ashworth Cattery, located to the west of the Site off Lower Jowkin Lane.
Neighbourhood Noise	North	10m	Residential areas located to the north of the Site.
	East	5m	Residential areas located to the east of the Site.
	South-east	5m	Residential areas located to the south-west of the Site.
* All distances are approximate and are measured from the red line boundary to the nearest façade.			

5.125 No existing sources of vibration have been identified.

Noise and Vibration Receptors

5.126 An initial desk-top assessment has identified the following existing NSRs:

- Residential – including dwellings and care homes;
- Places of Worship – including churches; and
- Educational Facilities – including schools.

Table 5.8: Summary of Existing Noise and Vibration Sensitive Receptors

Noise Receptor	Direction	Distance*	Description
Residential	North	10m	Dwellings off Furbarn Road, including properties known as no.5, Jowkin View, Loth Lorien, and Carr Holme.
	North	15m	Dwellings off Greenvale.
	North-east	115m	Dwellings off Northford Way and The Springs.
	East	140m	Dwellings off Norden Road, including Bamford Mews.
	East	5m	Dwellings off Norden Road and Hollin Lane.
	East	70m	Care home off Norden Road, known as Butterworth Grange Retirement Village.
	South	10m	Dwellings off Norden Road, Burnthorpe Close, Murreyfield, Ryburn Square, Porritt Close, Beechfield, including properties known as Greens Nook, Bamford Cottage, Oaks, and Butterworth Farm.
	West	5m	Dwellings off Jowkin Lane, including properties known as Hollin Hall Cottage, Mooredge Farm, and Mooredge Cottages.
	West	90m	Dwellings off Lower Jowkin Lane, including properties known as Lower Jowkin Farm and Waterloo Farm.
Places of Worship	South	85m	Bamford Chapel and Norden URC Church.
Educational Facilities	East	195m	Bamford Academy (Primary School) off Belgium Street.
	South	650m	St Michael's (Primary School) off Bury and Rochdale Old Road (B6222).
* All distances are approximate and are measured from the red line boundary to the nearest façade.			

5.127 All NSRs identified are considered to be of “High” sensitivity.

Rational for Scoping Out

Noise disturbance from construction works and activities

- 5.128 Construction noise is assessed in accordance with British Standard 5228-1:2009+A1:2019 'Code of practice for noise and vibration control on construction and open sites – Noise' (BS 5228-1)²¹.
- 5.129 The impact criteria proposed are presented in **Table 5.9** below.

Table 5.9: Construction Noise Criteria

Magnitude of Impact	Construction Noise Level
High	Equal to or greater than 10 dB above the threshold values presented in Table E.1 of BS 5228-1.
Medium	Between 5.0 and 9.9 dB above the threshold values presented in Table E.1 of BS 5228-1.
Low	Between 0.0 and 4.9 dB above the threshold values presented in Table E.1 of BS 5228-1.
Negligible	Below the threshold values presented in Table E.1 of BS 5228-1.

- 5.130 Construction activities have the potential to impact NSRs close to the Site.
- 5.131 Noise is likely to be generated during the enabling works, substructure works, and superstructure works by excavation plant and dump trucks, demolition plant, compressors and generators, concrete mixers and delivery vehicles. Activities will mainly take place outdoors until the buildings have been constructed.
- 5.132 Noise during the construction stage will be controlled through the implementation of a Construction Environmental Management Plan (CEMP), which will include preventative measures, such as construction hours, construction routes, construction methods, the use of site hoarding, the use of acoustic barriers, the use of appropriate equipment, siting equipment away from NSRs, community engagement, noise monitoring, best practicable means (BPM), best available technology (BAT), etc. These mitigation measures are an integral part of the Proposed Development and are considered part of the Environmental Management Plan.
- 5.133 The sensitivity of the receptors is likely to be "High", the magnitude of change is likely to be "Negligible to Low" with the implementation of the CEMP, and the level of effect is likely to be "Negligible to Minor", which is not significant. In addition, the effect is likely to be local and temporary.

²¹ British Standards Institution (BSI) (2019) British Standard 5228-1:2009+A1:2024 'Code of practice for noise and vibration control on construction and open sites – Noise', BSI.

- 5.134 Construction noise is therefore not considered to be significant and will not be considered further in the ES. The CEMP will be secured via a suitably worded planning condition.

Vibration disturbance from construction works and activities

- 5.135 Construction vibration is assessed in accordance with British Standard 5228-2:2009+A1:2019 'Code of practice for noise and vibration control on construction and open sites – Vibration' (BS 5228-2)²².
- 5.136 The impact criteria proposed are presented in **Table 5.10** below.

Table 5.10: Construction Vibration Criteria

Magnitude of Impact	Construction Vibration Level
High	Equal to or greater than 10.0 mm/s PPV
Medium	Between 1.0 and 10.0 mm/s PPV
Low	Between 0.3 and 1.0 mm/s PPV
Negligible	Below 0.3 mm/s PPV

- 5.137 Construction activities have the potential to impact NSRs close to the Site.
- 5.138 Vibration is likely to be generated during the enabling works and substructure works, specifically if piling is required.
- 5.139 Vibration during the construction stage will be controlled through the implementation of a CEMP, which will include preventative measures, such as construction hours, construction routes, construction methods, the use of appropriate equipment, siting equipment away from NSRs, community engagement, vibration monitoring, BPM, BAT, etc. These mitigation measures are an integral part of the Proposed Development and are considered part of the Environmental Management Plan.
- 5.140 The sensitivity of the receptors is likely to be "High", the magnitude of change is likely to be "Negligible to Low" with implementation of the CEMP, and the level of effect is likely to be "Negligible to Minor", which is not significant. In addition, the effect is likely to be local and temporary.
- 5.141 Construction vibration is therefore not considered to be significant and will not be considered further in the ES. The CEMP will be secured via a suitably worded planning condition.

²² BSI (2019) British Standard 5228-2:2009+A1:2024 'Code of practice for noise and vibration control on construction and open sites – Vibration', BSI.

Noise disturbance from construction traffic

- 5.142 Construction traffic is assessed in accordance with the methodology in Calculation of Road Traffic Noise (CRTN)²³ and broadly in accordance with the criteria in Design Manual for Roads and Bridges 'LA 111 – Noise and vibration' (DMRB)²⁴.
- 5.143 The impact criteria proposed are presented in **Table 5.11** below.

Table 5.11: Construction Traffic Criteria

Magnitude of Impact	Noise Change (short-term)
High	Equal to or greater than 5 dB
Medium	Between 3.0 and 4.9 dB
Low	Between 1.0 and 2.9 dB
Negligible	Less than 1.0 dB

- 5.144 A 25% increase in traffic flow (assuming speed and vehicle composition remain the same) is equivalent to a change in noise level of 1 dB $L_{A10,18hr}$. A change in road traffic noise of 1 dB $L_{A10,18hr}$ in the short-term is the smallest that is considered perceptible.
- 5.145 Construction traffic will not increase by more than 25%, as set out under 'Transport' above.
- 5.146 Construction traffic noise during the construction stage will be controlled through the implementation of a CEMP, which will include preventative measures, such as construction hours, construction routes, community engagement, BPM, BAT, etc. These mitigation measures are an integral part of the Proposed Development and are considered part of the Environmental Management Plan.
- 5.147 The sensitivity of the receptors is likely to be "High", the magnitude of change is likely to be "Negligible to Low" with implementation of the CEMP, and the level of effect is likely to be "Negligible to Minor", which is not significant. In addition, the effect is likely to be local and temporary.
- 5.148 Construction traffic is therefore not considered to be significant and will not be considered further in the ES. The CEMP will be secured via a suitably worded planning condition.

²³ Department of Transport and Welsh Office (1988) 'Calculation of Road Traffic Noise', HMSO.

²⁴ Standards for Highways (2020) 'Design Manual for Roads and Bridges. LA111 – Noise and vibration Revision 2)', Standards for Highways.

Last Accessed: 14 July 2026

<https://www.standardforhighways.co.uk/search/cc8cfc7-c235-4052-8d32-d5398796b364>

Noise disturbance from operational plant noise

5.149 Operational noise from any plant associated with the Proposed Development will be assessed in a noise impact assessment submitted with the planning application. This will be in accordance with British Standard 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound' (BS 4142)²⁵.

5.150 The impact criteria proposed are presented in **Table 5.12** below:

Table 5.12: Operational Plant Noise Criteria

Magnitude of Impact	BS 4142 Description	Difference between rating level and background sound level
High	A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.	Equal to or greater than 10 dB above the background sound level.
Medium	A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.	Between 5.0 and 9.9 dB above the background sound level.
Low	The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact	Between 0.0 and 4.9 dB above the background sound level.
Negligible	Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.	Below the background sound level.

5.151 The baseline sound levels will be used to determine the plant noise levels and any mitigation required.

5.152 Mitigation is likely to include plant noise limits, specification of plant, location of plant, installation method, etc, and will ensure operational plant noise can be controlled as far as reasonably practicable. This will be secured by planning condition.

²⁵ BSI (2019) British Standard 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound', BSI.

5.153 The sensitivity of the receptors is likely to be “High”, the magnitude of change is likely to be “Negligible to Low” with mitigation, and the level of effect is likely to be “Negligible to Minor”, which is not significant. In addition, the effect is likely to be local.

5.154 Operational plant noise is therefore not considered to be significant and will not be considered further in the ES. Plant noise limits will be secured via a suitably worded planning condition.

Noise disturbance from operational traffic

5.155 Operational traffic is assessed in accordance with the methodology in CRTN and broadly in accordance with the criteria in DMRB.

5.156 The impact criteria proposed are presented in **Table 5.13** below.

Table 5.13: Operational Traffic Criteria

Magnitude of Impact	Noise Change (short-term)	Noise Change (long-term)
High	Equal to or greater than 5 dB	Equal to or greater than 10 dB
Medium	Between 3.0 and 4.9 dB	Between 5.0 and 9.9 dB
Low	Between 1.0 and 2.9 dB	Between 3.0 and 4.9 dB
Negligible	Less than 1.0 dB	Less than 3.0 dB

5.157 A 25% increase in traffic flow (assuming speed and vehicle composition remain the same) is equivalent to a change in noise level of 1 dB $L_{A10,18hr}$. A change in road traffic noise of 1 dB $L_{A10,18hr}$ in the short-term is the smallest that is considered perceptible.

5.158 Operational traffic will not increase by more than 25%, as set out under ‘Transport’ above.

5.159 The sensitivity of the receptors is likely to be “High”, the magnitude of change is likely to be “Negligible to Low”, and the level of effect is likely to be “Negligible to Minor”, which is not significant. In addition, the effect is likely to be local.

5.160 Operational traffic is therefore not considered to be significant and will not be considered further in the ES.

Vibration disturbance from operational activities

5.161 The Proposed Development will not include any sources of vibration.

5.162 Operational vibration is therefore not considered to be significant and will not be considered further in the ES.

Site suitability

5.163 Suitability of the site for residential use (from existing and future noise sources) will be assessed in a noise impact assessment submitted with the planning application. This will be in accordance with ProPG: Planning & Noise – New Residential Development (ProPG)²⁶, British Standard 8233:2014 ‘Guidance on sound insulation and noise reduction for buildings’ (BS 8233)²⁷, and World Health Organisation ‘Guidelines for Community Noise’ (WHO GCN)²⁸.

5.164 Mitigation is likely to include a combination of the following:

- Barrier (e.g. brick wall, timber fence, earth bund, combination, etc). For example, using a barrier to break the line of sight between the noise source and receptor. The level of screening provided would depend on the height, length, alignment, construction, etc of the barrier. The barrier would need to be of a good solid construction, with no gaps or holes along its length;
- Site layout (e.g. buffer zone, offset, stand-off, etc). For example, using buffer zones to increase the distance between the noise source and first line of dwellings. This area could include landscaping, footpaths, parking, internal access roads, front gardens, etc;
- Building orientation (e.g. self-screening, barrier, etc). For example, using the first line of dwellings as a ‘barrier’ to screen the rest of the site and external amenity areas. Placing main gardens on the quieter façade, where practicable;
- Internal building layout (e.g. internal room configuration, etc). For example, positioning noise-sensitive habitable room uses (e.g. living rooms, dining rooms, open plan kitchen/living/dining areas, bedrooms, etc.) on the quieter façades and non-habitable room uses (e.g. kitchens, bathrooms, hallways, utility rooms, etc) on the noisier façades, where practicable; and
- Building envelope (e.g. glazing specification, alternative means of ventilation, construction, etc). The first line of dwellings overlooking the noise source may need an enhanced building envelope design specification to achieve acceptable internal noise levels.

5.165 The specific mitigation required will be subject to detailed design at the reserved matters stages (further noise assessment will be secured by planning condition). Through a combination of the mitigation options above there is a high level of

²⁶ Association of Noise Consultants (ANC), Institute of Acoustics (IOA), Chartered Institute of Environmental Health (CIEH) (2017) ‘ProPG: Planning and Noise. Professional Practice Guidance on Planning and Noise. New Residential Development, 2017, IOA & CIEH. Last Accessed: 30 June 2026

<https://www.ioa.org.uk/sites/default/files/14720%20ProPG%20Main%20Document.pdf>

²⁷ BSI (2014) British Standard 8233:2014 ‘Guidance on sound insulation and noise reduction for buildings’, BSI.

²⁸ World Health Organization (WHO) (1999) ‘Guidelines for Community Noise’, WHO.

confidence that significant effects are unlikely. Therefore, site suitability is not considered to be significant and will not be considered further in the ES.

Agricultural Land

Baseline Summary

- 5.166 The Site mostly comprises agricultural grassland which is shown on the Provisional Agricultural Land Classification (ALC) map as good to moderate quality Grade 3 land, bordering on poor quality Grade 4 to the north. However, the Provisional ALC data cannot be used to classify individual sites due to limitations of scale and changes to the classification system.
- 5.167 Two soil types are mapped at the Site, overlying the superficial geology of glacial till, with glaciofluvial deposits of sand and gravel in the south.
- 5.168 The main soils of the Wilcocks 1 association have black peaty or humose topsoils of 20cm depth. Upper subsoil is light brownish grey, mottled clay loam or sandy clay loam and overlies slowly permeable, mottled grey clay. Soil profiles are typically very poorly drained due to a combination of high rainfall, slowly permeable subsoil and gentle relief. Profiles of Wetness Class (WC) V or VI with organic topsoils are limited by soil wetness and workability to Grade 5 in the north of the Site.
- 5.169 By contrast, the subordinate soil type in the south of the Site, the Newport 1 association which is formed in glaciofluvial deposits, has sandy loam or loamy sand topsoils over loamy sand and sand, and is typically well-drained. Although potentially of high quality, these soils are affected by the overriding climatic limitation that affects the Site which, due to the cold and very wet conditions, places a limitation of Subgrade 3b over the entire Site. The Site does not therefore contain any best and most versatile (BMV) agricultural land (**Appendix 5.4**²⁹).
- 5.170 The southern part of the Site currently has no active farm tenancy; however, the north-western part of the Site extending to approximately 12ha forms part of Lower and Higher Jowkin Farm and represents about a third of the land farmed.

Rational for Scoping Out

Loss of lower quality agricultural land

- 5.171 Construction activities will result in the loss of agricultural land. However, as described above, there is no BMV agricultural land within the Site (**Appendix 5.4**). Soils on Site are affected by the overriding climatic limitation, which due to the cold and very wet conditions places a limitation of Subgrade 3b (at best) over the entire Site.
- 5.172 On this basis, the loss of lower quality agricultural land is not considered to be significant and will not be considered further in the ES.

²⁹ This report was prepared on the basis of the full allocation, and therefore the red line reflects a larger area than the Site. Whilst the report was prepared in 2019, it is considered to remain valid given the nature of data is likely to remain unchanged.

Loss or degradation of agricultural soils

- 5.173 Soil is a finite resource that fulfils many important functions and services for society in addition to the production of food and fibre. During the construction stage, damage to, and loss of, topsoil could occur if other dissimilar materials such as subsoil or other materials were stockpiled directly on it without a separating layer or possibly by poor work causing mixing of topsoil, subsoil and other materials during stockpile placement or removal.
- 5.174 There is also a risk of long-term damage to soil structure, and the loss of potentially valuable soil, if there is uncontrolled trafficking of land and soil by heavy machinery, especially wheeled machinery.
- 5.175 Biodegradation of topsoil would occur if it is compacted in storage, stockpiled when wet, if stockpiled in the medium-to-long-term, or covered by soil stores for long periods. Therefore, permanent, direct, adverse impacts may arise from: disposing of soil or re-using it for inappropriate purposes that do not meet the many beneficial functions of soil; by mixing incompatible soil resources; or/and by poor management of the soil resource.
- 5.176 Most of the topsoils on the Site are peaty or humose which lie over a clay loam upper subsoil and a slowly permeable clay lower subsoil. All three soil horizons are considered to be of high sensitivity to change. There is the potential that they will have a reduced capacity to fulfil the primary soil functions on the Site.
- 5.177 The principal measures to mitigate the impacts on soil resources would be set out in a Soil Resource Management Plan (SRMP) as part of a Material Management Plan, to be secured by a planning condition. The plan would confirm the different soil types; the most appropriate re-use for the different types of soils; and the proposed methods for handling, storing and replacing soils on-site.
- 5.178 The aim of the SRMP will be to re-use as much of the surplus soil resources in the design of open spaces and green infrastructure; and to maintain the quality of soils by following good practice guidance on soil handling and storage, particularly to avoid compaction and biodegradation.
- 5.179 With the adoption of appropriate mitigation for the handling and restoration of soils, as part of the SMRP, most soils will be able to continue their various ecosystem functions on the Site, principally as a medium for producing biomass; for storage and cycling of water and carbon; and for supporting habitats, biodiversity and landscape planting.
- 5.180 Therefore, the loss or degradation of agricultural soils is not considered to be significant and will not be considered further in the ES.

Risk to viability of farm holdings

- 5.181 Construction activities will result in the loss of agricultural land to the main farm holding at Lower and Higher Jowkin Farm. However, this loss will be in a distinct area (representing a third of the area farmed) within the eastern part of the holding. This will not fragment the remainder of the holding nor affect the ability of the farm buildings to continue to serve the residual farm holding to the west of Site. As the

Proposed Development will not prejudice the continuing functioning of the residual farm holding, the risk to the viability of farm holdings is not considered to be significant and will not be considered further in the ES.

Water Environment

Baseline Summary

Hydrology

- 5.182 Naden Brook, an Environment Agency defined Main River, flows southernly approximately 120m west of the Site before joining Cheesden Brook, another Main River, eventually discharging into the River Roch approximately 1.2km south of the Site.
- 5.183 Whilst no other watercourses are identified on-Site, Ordnance Survey Mapping indicates a Spring emerging in the northwestern corner. OS Mapping does not indicate the route of the spring. Contours within the Site indicate a potential route would flow in a south easterly direction.
- 5.184 There is a ditch at the south of the Site next to Norden Road, this drains through a culvert under Norden Road.

Hydrogeology

- 5.185 DEFRA's Magic Map³⁰ indicates that the bedrock deposits beneath the Site are classified as Secondary A Aquifers. The superficial deposits of Till are classified as Secondary (undifferentiated) Aquifers. The Glaciofluvial are classified as a Secondary A Aquifer.
- 5.186 The Site lies outside of any Groundwater Source Protection Zone and Nitrate Vulnerable Zone. The Site lies in an area of Medium and Low Groundwater Vulnerability Zones. The Site lies within the Northern Manchester Carboniferous Aquifers groundwater body.

Fluvial and Coastal/Tidal Flood Risk

- 5.187 The Environment Agency Flood Map for Planning indicates that the Site lies within Flood Zone 1, therefore is assessed to have a very low risk from fluvial sources.
- 5.188 The Site is located significantly higher than the mean sea level and is therefore not considered to be at risk of flooding from the sea.

Pluvial Flood Risk

- 5.189 The Environment Agency's Risk of Flooding from Surface Water mapping indicates that most the Site has a very low risk of surface water flooding.
- 5.190 A surface water flow path is identified in the northern area of the Site and is considered to have a variable risk of surface water flooding (low to high). Based on the presence of a spring in the north-western corner of the Site, the surface water mapping could potentially indicate the route of the spring through the Site.

³⁰ [Magic Map Application](#)

5.191 There is a further area of surface water flooding that straddles the southern border off the Norden Road. This is likely to be as a result of the ground levels being lower than the surrounding areas.

5.192 There is a known history of flooding downstream of the Site. This is caused by the surface water pipe being undercapacity for the catchment. The water pipe originates from within the Site and drains through the housing to the south east of the Site. Preliminary data suggests that the drainage from the Proposed Development can be drained to the culvert to the south. If this is feasible then the Proposed Development will decrease the risk of flooding for third parties as the surface water from the Site will not be draining into the surface water pipe that is flooding, and so there is unlikely to be significant effects.

Groundwater Flood Risk

5.193 Within the Rochdale Borough's Strategy for Flood Risk Management 2014-2024³¹, groundwater susceptibility is low risk to the Site. However, a potential groundwater flood risk source associated with springs is known to be present within the Site.

Reservoir/Artificial Flood Risk

5.194 The Environment Agency's Online Reservoir Flooding Map shows that the Site is outside the extent of any reservoir flooding. As a result, the Site is not considered to be at risk of flooding from reservoirs.

Sewers and Drainage Infrastructure

5.195 Due to the predominantly greenfield nature of the Site, the presence of an existing private drainage network within the footprints of the Site is unlikely. The Rochdale Metropolitan Borough Council Preliminary Flood Risk Assessment indicates that residential properties in the vicinity of the Site have suffered from sewer flooding in the past. Past discussions with United Utilities have confirmed capacity issues in the local surface water network along Norden Road. The Level 1 Strategic Flood Risk Assessment for Greater Manchester (2019)³² indicates that areas / residential properties in the vicinity of the Site have suffered from sewer flooding in the past. Past discussions with United Utilities have confirmed capacity issues in the local surface water network along Norden Road.

Water Quality

5.196 The Countryside Stewardship³³ flags the Site to fall within a 'phosphate issues priority' area classified as medium.

³¹ [Rochdale Borough's Strategy for Flood Risk Management 2014-2014, March 2014](#)

³² https://www.greatermanchester-ca.gov.uk/GMCAFiles/PFE/Supporting%20documents/04%20sustainable%20and%20resilient%20places/04.02.01%20GM%20Strategic%20Flood%20Risk%20Assessment%20Level%201%20Report.pdf?utm_source=chatgpt.com

³³ Identified using the MAGIC maps tool. Available at:
<https://magic.defra.gov.uk/MagicMap.html>

- 5.197 Naden Brook is a heavily modified river waterbody within the Roch Irk Medlock catchment. The Environment Agency's (EA) Catchment Data Explorer³⁴ currently has a Moderate³⁵ ecological status and a chemical status of Fail (most up to date classification year of 2019). There is no ecological objective, but the chemical objective is Good by 2063, reflecting natural chemical recovery times. Reasons for not achieving good include physical modification associated with the water industry and persistent chemical substances, for which measures have been delivered and recovery is awaited.
- 5.198 The River Roch (Spodden to Irwell) is currently recorded³⁶ as having Moderate ecological status and Fail chemical status (most up to date classification year of 2019). The waterbody is heavily modified. The current EA record identifies objectives for the waterbody, including an overall ecological objective of Moderate by 2015 and a chemical objective of Good by 2063. Reasons for not achieving Good include continuous sewage discharges associated with the water industry, urban-development pressures, physical modification and persistent chemical substances including mercury. More recent EA information confirms that phosphate status in the River Roch has improved from Poor to Good, with the improvement reflected in the Environment Agency's 2025 classification results.

Rational for Scoping Out

Short-term increase in flood risk due to construction activities

- 5.199 Construction activities have the potential to result in increased overland runoff, upon removal and compaction of vegetation during enabling works. The increase in surface water runoff may increase surface water within any lower parts of the Site or increase flood risk downstream of the Site.
- 5.200 Although local borehole records in the vicinity of the Site indicate groundwater levels at approximately 15m below ground level³⁷, Ordnance Survey mapping identifies a spring within the Site boundary. The presence of the spring indicates that groundwater may locally emerge at or near the ground surface, notwithstanding the deeper groundwater levels recorded in nearby boreholes. Sub-surface flow paths will be assessed prior to construction, in accordance with BS 8533: Assessing and managing flood risk in development³⁸. The temporary drainage strategy for the construction of the Proposed Development will include suitable dewatering techniques if required. This will keep workers and local residents safe from groundwater flood risk.
- 5.201 A temporary drainage strategy will be implemented to manage changes to or additional surface water runoff and sub-surface flows during the construction stage. Temporary drainage strategies often incorporate attenuation features which will

³⁴ Environment Agency (2026). Catchment Data Explorer: Naden Brook (GB112069064710). Available at: <https://environment.data.gov.uk/catchment-planning/v/c3-plan/WaterBody/GB112069064710> [Accessed August 2026].

³⁵ Defined as a moderate change from natural conditions as a result of human activity. Some restriction on the beneficial uses of the water body. No impact on amenity. Some impact on wildlife and fisheries.

³⁶ [Roch \(Spodden to Irwell\) | Catchment Data Explorer | Catchment Data Explorer](#)

³⁷ [GeoIndex - British Geological Survey](#)

³⁸ [BS 8533:2017 - Assessing and managing flood risk in development. Code of practice](#)

remain part of the operational surface water drainage system. The temporary drainage strategy will be defined and managed as part of the CEMP and take account of industry best practice and guidance (i.e. BS 8582:2013 – Code of practice for surface water³⁹ management for development sites). This tertiary mitigation measure is considered an integral part of the Proposed Development and will be considered as part of the EMP. Therefore, the increase in flood risk due to construction activities is considered unlikely to be significant and will not be considered further in the ES.

Short-term alterations to groundwater flow and quality

- 5.202 Construction activities and the operation of the Proposed Development will have implications on the groundwater flow and quality. Site clearance, including removal of vegetation during enabling works, will naturally increase overland runoff and cause a related decrease in natural infiltration which may have a detrimental effect in the water quality – mainly related to the increase in Total Suspended Solids (TSS).
- 5.203 The surface water drainage strategy will follow SuDS Management Train approach described in the Ciria C753⁴⁰, with flows being attenuated and treated within open SuDS. The level of surface water treatment delivered will be aligned with the type of water receptor i.e. surface water sewer or groundwater. Infiltration would be encouraged where it is possible and the temporary drainage strategy implemented during the construction stage will take advantage from any post-development attenuation SuDS, as much as practicable. However, infiltration will be discounted as soakaways where not feasible. These measures would be considered an integral part of the Proposed Development in order to meet the national and local policy on flood risk and drainage (NPPF⁴¹, Non-Statutory Technical Standards for SuDS⁴²). Within the assessment criteria these would be considered tertiary mitigation measures.
- 5.204 Therefore, following the implementation of this mitigation, the alterations to groundwater flow and quality are not considered to be significant and will not be considered further in the ES.

Potential increase in physical contamination (i.e. sedimentation) of surface water bodies, including SuDS

- 5.205 Construction activities, which generate untreated effluents (e.g. wash-down facilities), are likely to pose a threat to downstream surface water receptors i.e. public sewers and highway drains downstream of the Site and any ultimate receptors (e.g. water courses).
- 5.206 Likewise, any surface water runoff generated during operation (mostly from highway runoff) may mobilise sediments, which may reach the public sewers and cause blockages in the public network.
- 5.207 In terms of construction activities, any raw effluent will be stored in sealed compartments and transferred off-site to receive the adequate level of treatment – including sludge treatment, should it be required. These measures will form part of a

³⁹ [BS 8582:2013 | 30 Nov 2013 | BSI Knowledge](#)

⁴⁰ [The SuDS Manual C753F](#)

⁴¹ [National Planning Policy Framework - GOV.UK](#)

⁴² [National standards for sustainable drainage systems - GOV.UK](#)

CEMP for the Site, which will detail measures to avoid, minimise or offset effects on the environment.

- 5.208 During operation, sediments arising will accumulate at certain parts of the new drainage system, which will have an adequate maintenance and operation plan in place throughout the entire life of the Proposed Development. The proposed on-site drainage system will include open SuDS, which will promote settling and filtering of sediments.
- 5.209 These primary and tertiary mitigation measures would be considered an integral part of the Proposed Development and considered as part of the EMP.
- 5.210 Therefore, any potential increase in physical contamination (sedimentation) of surface water bodies is considered unlikely to be significant and will not be considered further in the ES.

Increased demand for drinking water supplies

- 5.211 The Site is not located within or adjacent to a Groundwater Source Protection Zone. As such, no significant effects on the quality of public drinking water supplies are anticipated.
- 5.212 Construction activities will naturally increase the demand on potable water supplies through the demand required for construction workers and construction activities (e.g. cleaning of highways and dust suppression). The local water company will be consulted prior to construction to assess the impact of this increase in the water supply surrounding the Site and ensure that the supplies can be met without creating a noticeable effect at local residents or at source.
- 5.213 Whilst new and/or upgraded infrastructure near to the Site may be required to accommodate the additional demand generated for 350 new homes, the environmental effects associated with the implementation of the new infrastructure are not considered to form part of the Proposed Development (unless it is within the Site, whereby it will be assessed in the usual way as part of the Proposed Development).
- 5.214 In terms of the environmental effects at source, the increased demand from new homes has been considered at the regional level and as part of separate licences for abstractions from source. According to United Utilities Final Water Resources Management Plan 2024 (WRMP24)⁴³, the Site falls within the Strategic Resource Zone. The baseline forecast indicates a shortfall in the amount of potable water available to meet projected demand in this resource zone, with a deficit of 52.6 Ml/d⁴⁴ in 2025/26 increasing by 2049/50, however the deficit forecast '*will be resolved by our demand management strategy*' and includes '*the opportunity to make some strategic choices to protect and, where possible, benefit customers and the environment.*' The strategic

⁴³ https://www.unitedutilities.com/globalassets/z_corporate-site/about-us-pdfs/wrmp24-final/wrmp-main-report.pdf

⁴⁴ Megalitres per day (million litres per day).

choices have been developed principally in response to the views of customers, regulators and other stakeholders.

- Meeting ambitious government targets to halve the level of leakage and reduce the use of water to 110 litres per person per day by 2050, as well as interim targets for demand and leakage reduction;
- Improving levels of service for the frequency of water use restrictions and drought permits; and
- Supporting national and regional water resources needs through water transfers.

5.215 Therefore, increased demand for drinking water supplies is unlikely to be considered significant and will not be considered further in the ES.

Increased foul flows to foul sewers network

5.216 The Proposed Development is expected to have an impact on the public foul water sewers in the vicinity of the Site due to the increase in foul flows arising from the Proposed Development. On top of this, any downstream treatment facilities will see their peak incoming flows increase. If not managed adequately, the increase in peak flows may put both the public network and treatment facilities under pressure, ultimately leading to discharges of raw effluent into watercourses.

5.217 Prior to the commencement of the Proposed Development, the local sewerage supply undertaker will assess the capacity available in the conveyance/treatment infrastructure downstream of the Site. Should any upgrades to the existing public foul water network be required, these will be undertaken by United Utilities in accordance with the standards and specifications set out in Design and Construction Guidance, part of the Sewerage Sector Guidance⁴⁵. These tertiary mitigation measures would be considered an integral part of the Proposed Development and considered as part of the EMP and would avoid any raw effluent discharge into watercourse.

5.218 It is assumed that the environmental effects of any increase in foul flows will be controlled through the discharge consent(s) or permit(s) associated with/available to United Utilities, where consent(s) or permit(s) are only issued where environmental effects are suitably controlled.

5.219 Therefore, increased foul flows to the foul sewers network are unlikely to be considered significant and will not be considered further in the ES.

Potential increase in on and off-Site flood risk, due to an increase in impermeable surface areas and the disturbance of existing groundwater flow paths

5.220 Due to an increase in impermeable areas arising from the Proposed Development, the total amount of surface water runoff and the peak surface water flows will naturally increase. These two factors contribute to a greater chance of flooding in the areas downstream of the Site, putting people and properties at risk.

⁴⁵ https://www.water.org.uk/sites/default/files/2023-11/SSG%20Appendix%20C%20-%20Design%20and%20Construction%20Guidance%20v2-3_0.pdf

- 5.221 As part of the Proposed Development, a Flood Risk Assessment (FRA) and a surface water Drainage Strategy will be prepared and submitted in accordance with the National Planning Policy Framework⁴⁶, the Non-Statutory Technical Standards for Sustainable Drainage Systems⁴⁷ and The Building Regulations. The FRA will include a standard consultation with the Local Lead Flood Authority, Local Sewerage Undertaker and Environment Agency. According to the Phase II Geoenvironmental Site Assessment Bamford, Norden, 2022, by E3P, soakaways are not feasible on the Site, therefore the philosophy of the drainage strategy is to attenuate runoff on-Site followed by discharge of flows into the local watercourses and/or public surface water network at (or below) pre-development greenfield runoff rates. These primary mitigation measures would be considered an integral part of the Proposed Development and considered as part of the EMP.
- 5.222 The drainage will be designed for the 1 in 100 plus climate change (45%) and will discharge at greenfield runoff rates.
- 5.223 Any existing ordinary watercourses within the Site boundary will be protected and, if possible, enhanced as part of the Site-specific drainage strategy. Likewise, any sub-surface flow paths (i.e. groundwater) will be integrated into the Proposed Development, either by allowing these to safely cross the Site or by intercepting/diverting flows at the Site boundary. However, if groundwater is at depth (15m plus) it is unlikely to be impacted by development on the Site.
- 5.224 Therefore, on and off-Site flood risk is not considered to increase as a result of the Proposed Development and is unlikely to be considered significant. This will not be considered further in the ES.

Change in hydrological scheme and nutrient enrichment affecting Sites of Special Scientific Interest (SSSI) and Special Areas of Conservation (SAC)

- 5.225 Due to an increase in impermeable areas arising from the Proposed Development, the natural hydrological cycle of water will be altered, with natural infiltration of flows being replaced by an increase of surface water runoff. Also, as a result of the Proposed Development there will be an increase in foul flows and respectively an enrichment of nutrients in the ultimate receptors (i.e. water courses). Both the Rochdale Canal SAC and South Pennine Moors Phase 2 SPA are located upstream of the Site, which means that any change to the nutrient cycle of Naden Brook waters will not have an impact in these sites. The Mersey Estuary SSSI/Ramsar is located approximately 34km to the southwest of the Site and could theoretically be affected by a change in the water quality of the Naden Brook. However, the impacts on the water quality of Mersey Estuary are expected to be negligible due to the significant distance to the Site.
- 5.226 In any case, as part of the Proposed Development, a site-specific surface water Drainage Strategy will be prepared and submitted in accordance with the Non-Statutory Technical Standards for Sustainable Drainage Systems. This means that any discharge of surface water runoff will take into consideration the pre-development greenfield runoff rates and volumes. Foul water flows arising from the Proposed Development will be conveyed to a public dedicated network and respective treatment

⁴⁶ [National Planning Policy Framework - GOV.UK](#)

⁴⁷ [National standards for sustainable drainage systems - GOV.UK](#)

works. However, it is anticipated that a potential increase in nutrients to the water courses will have to be balanced-off by on-site dedicated SuDS features to improve water quality (e.g. wetlands). These tertiary mitigation measures would be considered an integral part of the Proposed Development and considered as part of the EMP.

- 5.227 Therefore, off-site impacts to the Rochdale Canal SAC, the South Pennine Moors Phase 2 SPA and the Mersey Estuary SSSI are not considered to be impacted by the Proposed Development and will not be considered further in the ES.

Ground Conditions and Contamination

Baseline Summary

Potential Historical Contaminative Land Use

- 5.228 Historical Ordnance Survey mapping indicates that the majority of the Site has comprised agricultural land uses.
- 5.229 A reservoir was located to the northeast and a tank was located in the centre of the Site from ca. 1830 to ca. 1967 after which they are no longer shown and assumed infilled/removed. As well as agricultural land uses, the Site was also subject to industrial practices. Pre 1890 the Bamford Woollen Mills was located to the south of the Site and the Pitfield Mills was located to the east.
- 5.230 Six pylons were constructed onsite pre-1976 with overhead electrical cables which intersect the Site from north to south. A school, now identified as apartments/residential houses, was built on-site pre-1975.

Geology

- 5.231 British Geological Survey (BGS) 1:50,000 scale On-shore Digital Mapping (British Geological Survey, 2021) indicates that the Site is underlain by bedrock deposits from the Pennine Lower Coal Measures Formation. These strata comprise Mudstone, Siltstone and Sandstone.
- 5.232 British Geological Survey (BGS) 1:50,000 scale On-shore Digital Mapping (British Geological Survey, 2021) indicates that the Site is predominantly underlain by superficial deposits of Glacial Till, which comprise strata of silty, sandy, gravelly Clay. The southern area of the Site is shown to be underlain by Glaciofluvial Deposits which comprise Sand and Gravel.
- 5.233 Several borehole records in the vicinity of the Site show soils with high contents of clay, which will reduce existing infiltration rates to the geology below.

Landfill

- 5.234 A historic landfill site, the Clay Lane Water Treatment Works is located 42m north of the Site and may contain ground conditions that may give rise to ground gases such as methane and carbon dioxide. Historically, a reservoir was located to the east of the Site and is no longer present. This suggests the land was subject to infilling with Made Ground, which may also be a source of ground gases.

Coal Mining

- 5.235 The Arley coal seam is present to the north and south of the fault and dips in a southerly direction. An adit is indicated as being present, which infers the potential for workings within the Arley coal seam. The area ~50m from the identified coal seam is identified as high risk in terms of unrecorded mine workings which, could consolidate inducing subsidence at the surface.

Hazardous Installations

- 5.236 No hazardous installations are present.

Rational for Scoping Out

Contamination and risk to human health

- 5.237 The Phase 1 Geoenvironmental Site Assessment⁴⁸ (**Appendix 5.5**) for the Site concludes there is unlikely to be extensive sources of contamination, given the undeveloped nature of the Site. However, potential areas of local contamination have been identified and assessed in line with Environment Agency guidance Land Contamination Risk Management⁴⁹ (LCRM) (**Appendix 5.5**).
- 5.238 These potential areas of local contamination are associated with: historic infilling; historic agricultural practices; the historic mills; and the nearby historic landfill. There may also be other sources of contamination associated with the limited demolition of any existing structures, if required. Further detail is provided in **Appendix 5.5**.
- 5.239 Prior to construction, further site-specific investigation will be undertaken alongside chemical analysis to fully understand the localised areas of contamination. As detailed in **Chapter 4**, if significant contamination is identified, a programme of mitigation or remediation work will be carried out as part of the enabling works in line with a Remediation Strategy approved by the regulators (secured by planning condition). For example, if asbestos containing materials (ACM) are encountered, the risk to human health will be mitigated through the development of a detailed enabling works strategy following guidance and protocol specified within the Control of Asbestos Regulations⁵⁰ and industry best practice as detailed in CIRIA733⁵¹ (Asbestos in Soil and Made Ground: A guide to understanding risk).
- 5.240 Any potential direct exposure risk to future users of the Site will be removed through the placement of clean cover systems to areas of garden and soft landscaping.
- 5.241 There is also the potential for the accidental release of new contamination due to on-site activities (i.e. fuel spillage from plant/machinery, or disturbance due to foundations works). However, all on-site enabling and construction activities will be undertaken in line with Construction Design and Management Regulations⁵² (CDM),

⁴⁸ This report was prepared on the basis of the full allocation, and therefore the red line reflects a larger area than the Site. Whilst the report was prepared in 2021, it is considered to remain valid given the nature of data is likely to remain unchanged.

⁴⁹ [Land contamination risk management \(LCRM\) - GOV.UK](#)

⁵⁰ [The Control of Asbestos Regulations 2012](#)

⁵¹ https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductcode=C733

⁵² [The Construction \(Design and Management\) Regulations 2015](#)

CL:AIRE Development Industry Code of Practice⁵³, as well as best practice measures (i.e. tool-box talks, personal protective equipment (PPE), use of Respiratory Protective Equipment (RPE) and working method statements as required) and led by the contactor when appointed (secured through the CEMP).

- 5.242 Therefore, any contamination and risk to human health is unlikely to be significant and will not be considered further in the ES.

Contamination and risk to groundwater (Secondary A Aquifers)

- 5.243 As outlined above, there is unlikely to be extensive sources of contamination, given the undeveloped nature of the Site, although potential areas of local contamination have been identified (**Appendix 5.5**) and are the same as those outlined above.

- 5.244 Prior to construction, further site specific investigation will be undertaken alongside chemical analysis to fully understand the localised areas of contamination. As detailed in **Chapter 4**, if localised areas of groundwater contamination are identified, these can be remediated using various methods that may include in-situ or ex-situ treatment technologies. Such works are completed in accordance with an Environment Agency Environmental Permit, the operation of which ensures no short term risk to any identified receptor.

- 5.245 During construction, the risk of contamination migration associated with a pollution incident during construction activities (e.g. fuel spillage) will be mitigated by the CEMP and emergency action that would ensure immediate action is implemented to mitigate the risk to the aquifers.

- 5.246 The Proposed Development is deemed to be a very low risk land use in terms of generating pollution. However, the Proposed Development will be designed in such a way to ensure that there are points of interception to contain any sources of pollution. This will limit the potential for migration of pollution to the aquifers.

- 5.247 Therefore, contamination and the risk to groundwater, in particular the underlying Secondary A Aquifers is unlikely to be considered significant and will not be considered further in the ES.

Migration of hazardous ground gasses and risk to human health

- 5.248 The Phase 1 Geoenvironmental Site Assessment (**Appendix 5.5**) for the Site concludes there is unlikely to be significant site-wide sources of ground gas.

- 5.249 However, potential localised sources of anthropogenic ground gas (associated with the reservoir to the east) and gases associated with a mine entry may be present.

- 5.250 Prior to construction, further site-specific investigation and assessment will be undertaken to inform any mitigation required. This detailed assessment will be in accordance with British Standard BS 8485:2015+A1:2019⁵⁴ Code of practice for the

⁵³ [DoW:CoP](#)

⁵⁴ [BS 8485:2015+A1:2019 | 31 Jan 2019 | BSI Knowledge](#)

design of protective measures for methane and carbon dioxide ground gases for new buildings.

- 5.251 Such mitigation will include sub-floor ventilation (to create a pressure relief) and dispersal pathway and specialist membranes within new properties (to ensure no ingress of hazardous ground gasses). This will reduce the risks associated with the ingress of hazardous ground gasses.
- 5.252 Therefore, migration of hazardous ground gases and risk to human health is unlikely to be significant and will not be considered further in the ES.

Historic coal mining and risk of subsidence

- 5.253 Unrecorded mine workings have been identified to the south of the Site. This could cause subsidence at the surface.
- 5.254 The Coal Authority require exploratory holes to confirm the presence of the sub-crop, the depth of rock and the possibility for unrecorded workings.
- 5.255 Exploratory boreholes will be required to locate the entrance to the mine workings and determine its conjectured location. This will inform the requirement for future stabilisation of this feature.
- 5.256 With respect to the mine stabilisation works, these are only required beneath areas of Proposed Development (roads and housing), therefore if the land is left undeveloped or within public open space no works are required. However, in other areas a programme of drilling and pressure grouting will be completed to stabilise any abandoned mine workings in accordance with CIRIA guidance Abandoned mine workings manual (C758D)⁵⁵. These works will include:
- Works will be completed using specialist plant and equipment;
 - Bulk materials will be stored in a manner that prevents any dust egress;
 - Liquid grouts will be pumped into the mine workings; and
 - Control measures will be instigated to ensure no egress of liquid grout from the Site boundary.
- 5.257 The mine stabilisation works will be designed in a manner so as not to create any environmental impact to the adjacent properties and will reduce the risk of subsidence of any buildings or structures developed as part of the Proposed Development.
- 5.258 To enter / disturb / investigate suspected abandoned mine workings (if required), an application must be made to the Coal Authority for a permit to complete investigation works. This will be completed by specialists who are deemed suitably qualified to supervise the process by the Coal Authority. A second permit will be required from the Coal Authority for any mine stabilisation works (post investigation), including detailed

⁵⁵ https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C758D

designs, construction method statements and validation testing protocols to ensure strict environmental and regulatory control for the works.

- 5.259 The works will be secured by pre-commencement condition, which ensures all mine workings are investigated and stabilised prior to commencement of the Proposed Development.
- 5.260 Therefore, based on the implementation of the above mitigation, subsidence associated with historic coal mining and risk of subsidence is not considered to be significant and will not be considered further in the ES.

Lighting

Baseline Summary

- 5.261 There is currently lighting associated with the club house and access to the cricket pitch to the east of the Site, as well as flood lights for the tennis courts and one of the football pitches. The surrounding road network is currently lit with street lighting to the east and south west along Norden Road and Jowkin Lane. There is also lighting associated with the existing development in Bamford and Norden to the east and north. Due to the lighting types present surrounding the Site, it is assumed that the Site is within an E3 Environmental Lighting Zone⁵⁶ and considered as an area of medium ambient brightness, typical of urban residential areas.

Rational for Scoping Out

Disturbance to nearby residents due to obtrusive light during construction

- 5.262 Light pollution (or obtrusive light) comprises any adverse effects of artificial lighting including glare, light trespass/spill and sky glow, occurring as a result of temporary construction activities and the operation of the Proposed Development.
- 5.263 Lighting will be required during construction activities. However, it is anticipated that lighting will be controlled through the implementation of best practice measures, informed by the ILP 'Guidance Note 1 for the reduction of obtrusive light'⁵⁷ and include:
- The use of sufficient lighting units for the task in hand to avoid the need for tall, wide beam lighting units;
 - The reduction of fixed lighting outside working hours; and
 - Any requirements for ongoing monitoring and liaison with stakeholders.
- 5.264 It is anticipated that the above measures will be secured/implemented through the production of a CEMP by the contractor, when appointed, and submitted to RBC for approval prior to commencement of construction activities.

⁵⁶ [GN01 For the reduction of obtrusive light 2021](#)

⁵⁷ [GN01 For the reduction of obtrusive light 2021](#)

- 5.265 Therefore, disturbance to nearby residents due to obtrusive light from construction activities is unlikely to be considered significant and will not be considered further in the ES.

Disturbance to residents due to obtrusive light and sky glow during operation

- 5.266 Lighting will be installed as part of the Proposed Development at the Site access and along internal circulation routes.
- 5.267 Obtrusive lighting and associated nuisance is most likely to have adverse effects on sensitive receptors (principally residential) located in close proximity to the Site and relate to light intrusion and glare from external lighting required for the Proposed Development.
- 5.268 The wider area is already subject to existing lighting levels and there is also operational flood lighting adjacent to the east of the Site.
- 5.269 Obtrusive light can be avoided through appropriate lighting design in line with best practice, guidance and standards, including British Standard 5489-1:2020⁵⁸. Measures to mitigate effects from obtrusive light include the selection of the correct type of luminaire, the use of shields, hoods, as well as the design and positioning of lights (e.g. power, orientation, and height of the luminaire).
- 5.270 The Proposed Development is not anticipated to be of a nature, scale or location likely to contribute significantly to sky glow as it is assumed that all temporary / permanent lighting installations will be designed / installed in line with best practice and relevant standards (e.g. CIE) 126: Guidelines for Minimising Sky Glow⁵⁹), which includes the requirements to minimise upward light emitted and contributions toward sky glow.
- 5.271 Therefore, disturbance to residents due to obtrusive light during operation are unlikely to be considered significant and will not be considered further in the ES.

Waste

Baseline Summary

- 5.272 The Site is currently in agricultural use, so there are minimal waste arisings generated other than from standard agricultural practices.

Rational for Scoping Out

Waste generation during construction

- 5.273 As noted in **Chapter 4**, if demolition is required, this is likely to be limited and will only generate a limited amount of material. **Chapter 4** also noted that it is assumed that a cut and fill balance of material is expected to be achieved on-Site, which will be subject to a Material Management Plan, secured by planning condition. In the event that

⁵⁸ British Standard (2020). 5489-1:2020 Design of road lighting. Lighting of roads and public amenity areas. Code of practice.

⁵⁹ CIE (1997) 126: Guidelines for Minimising Sky Glow.

material is required to be disposed of off-site, this will be transferred to another local site where there is a requirement for surplus materials.

- 5.274 Other sources of waste during the construction stage are assumed to relate to construction materials (including packaging). It is anticipated that waste produced during construction would be controlled through the implementation of a CEMP, secured by planning condition. The CEMP will be informed by the waste provisions of the Environmental Protection Act 1990⁶⁰ and the Environmental Protection (Duty of Care) Regulations 1991⁶¹ and will set out the principles and legal requirements relating to waste (including hazardous waste).
- 5.275 The CEMP will also describe how materials will be managed efficiently and disposed of legally during construction. It will also outline the aims, objectives and on-going management responsibilities, including management practices, to be implemented during the construction stage, and will set targets for the reduction, diversion from landfill and reuse of waste.
- 5.276 If identified, contaminated materials will be adequately characterised both chemically and physically in line with relevant guidance, such as Waste Classification: Guidance on the classification and assessment of waste. Hazardous materials generated in the construction stage will be managed within legal requirements⁶², ensuring appropriate storage, collection and disposal in line with sustainable management practices where possible.
- 5.277 Therefore, waste generated during construction is unlikely to be considered significant and will not be considered further in the ES.

Waste generated during operation

- 5.278 Once operational, a quantity of domestic will be generated from the Proposed Development. The Proposed Development will not include for any land uses or activities that will give rise to particularly contaminative or hazardous waste materials.
- 5.279 The British Standard (BS) 5906:2005 Waste Management in Building – Code of Practice⁶³ suggests that the weekly waste arisings from a ‘domestic’ use is equal to the number of units x [(70 litres x average number of bedrooms) +30]. To ensure a worst-case scenario, the average number of bedrooms is assumed to be four (noting this is for worst case reporting purposes only and, in reality, the average may be lower). The estimated potential operational waste arisings are in **Table 5.14**.

⁶⁰ Environmental Protection Act 1990 No. 43 Available at:
<https://www.legislation.gov.uk/ukpga/1990/43/contents>

⁶¹ Environmental Protection (Duty of Care) Regulations 1991 No. 2839. Available at:
<https://www.legislation.gov.uk/uksi/1991/2839/made#:~:text=The%20duty%20requires%20such%20persons,person%20or%20to%20a%20person>

⁶² Including: Control of Pollution (Special Wastes) Regulations 1980, The Dangerous Substances (Conveyance by Road in Road Tankers and Tank Containers) Regulations 1981, Environmental Protection Act 1990.

⁶³ British Standard BS 5906:2005 Waste management in buildings – Code of practice. Available at: (rbkc.gov.uk)

Table 5.14: Estimated operational waste calculations

Building Type (BS 5906:2005)	Equation for weekly waste arisings	Proposed Development	Weekly Waste Arisings
Domestic	Number of dwellings × {(volume arising per bedroom [70 litres] × average number of bedrooms) + 30}	350 units	108,500 litres / 108.5m ³

5.280 Based on the estimated weekly waste volumes within **Table 5.1**, the total yearly waste volume would be approximately 5,642,000 litres (5,642m³). It should be noted that the values below do not take into account of any waste arising being reused, recycled or diverted from landfill by another means and represent a worst-case scenario.

5.281 The Proposed Development will include provisions for the disposal of waste, which will include facilities for the separation of waste for recycling purposes. This will be in accordance with RBC policy. A waste strategy (to be secured by planning condition) will be developed for the Site, which will set out the principles and strategy for the management of waste and recycling.

5.282 Therefore, waste generated during operation is unlikely to be considered significant and will not be considered further in the ES.

Major Accidents and/or Disasters

Baseline Summary

5.283 There is currently a 132KV overhead power line (Electricity North West) which broadly runs in a north to south direction though the Site. There is also a 275KV overhead power line (National Grid, Electric) which broadly runs in parallel to the 132KV.

5.284 The Site does not lie within the consultation distance of a major hazard site or pipeline on which the Health and Safety Executive would need to be consulted.

Rational for Scoping Out

5.285 As detailed within Schedule 4, Paragraphs 5 and 8 of the EIA Regulations, there is the requirement to consider the risk of major accidents and/or disasters relevant to the Proposed Development.

5.286 Although there is the potential for a wide range of major accidents and disasters that could occur, the probability, likelihood and frequency is very low, often due to the management of a risk under established legislative requirements.

5.287 The EIA Regulations do not specify the need for the consideration of natural disasters. However, for completeness, this has been considered.

5.288 The probability, frequency and likelihood of natural disasters arising from climatic occurrences (i.e. hurricanes) are considered to be very low due to the natural climatic

condition of the UK within the global climate system. Specific geological events (i.e. earthquakes, tsunami, volcanic incidents etc.) are also considered to be very low due to the general absence of required geological conditions (i.e. area of tectonic plate interaction) within or in proximity to the UK. Although earthquakes have occurred within the UK, the magnitude of such events has generally been low.

- 5.289 The Proposed Development will comprise mainly residential land use and therefore will be subject to necessary Building Regulations and standards in order to be classified as safe for use, inclusive of fire safety standards.
- 5.290 Following a qualitative appraisal of major accidents and/or disasters that were relevant to the Proposed Development, the following have been considered further and are presented in **Table 5.15**. Based on the evidence provided within **Table 5.15**, the likelihood of events with a significant consequence is considered to be low/unlikely and will not be assessed further in the ES, albeit greater detail on the control measures in place will be provided.

Table 5.15: Appraisal of the Risk of Major Accidents and/or Disasters

Effect	Appraisal
A major accident caused by ground subsidence and associated structural/building collapse	All earthworks and foundation design will be in accordance with relevant industry guidance, including but not limited to CIRIA Report C572: Treated ground engineering properties and performance⁶⁴, British Research Establishment document FB75: Building on Fill - Geotechnical Aspects⁶⁵ and British Standard 6031:2009: Code of Practice for Earthworks⁶⁶, thereby negating the probability and likelihood of any significant effect. Please also refer to the consideration of 'Historic coal mining and risk of subsidence', which has been appraised above.
Major flood event caused by an extreme weather event	As described under the 'Flood Risk and Drainage' above, the risk of flooding is not considered to be significant due to the drainage strategy to be implemented as part of the Proposed Development. The Proposed Development has been designed and will be constructed in line with relevant industry standards and guidance. Adherence to such guidance, which accounts for possible extreme events, is considered sufficient to negate the probability and likelihood of any significant effect.

⁶⁴ CIRIA (2002). Report C572: Treated ground engineering properties and performance.

⁶⁵ British Research Establishment (2015). FB75: Building on Fill - Geotechnical Aspects. 3rd Edition.

⁶⁶ British Standard (2009). 6031:2009: Code of Practice for Earthworks.

Effect	Appraisal
Major accidents on the local road network	The management of the road network and the enforcement of stringent safety standards reduce the risk, both in terms of the frequency and likelihood to a low level.
Major accident associated with overhead power lines	The Site is crossed by a 132KV overhead power line (Electricity North West) which broadly runs in a north to south direction. There is also a 275KV overhead power line (National Grid, Electric) which broadly runs in parallel to the 132KV. During construction, safe working methods will be implemented and included in the CEMP. This will include adherence to relevant health and safety legislation and ensuring Site workers are briefed on the appropriate easements. The overhead power lines will be retained as part of the Proposed Development. Residential use will be restricted within an appropriate easement of the power lines. Informal and formal open space and play space will be broadly located within the easement of the 132KV overhead power line. This primary and tertiary mitigation will ensure there is no risk of a major accident associated with the overhead power lines.
Major accidents associated with underground utilities	During the construction stage, working areas will be secured with restricted access so only suitably qualified personnel are present. Works to confirm the location of existing utilities will be undertaken before the commencement of activities in liaison with the relevant operators. Good practice working measures will be put in place as part of the CEMP in line with the Construction (Design and Management) Regulations 2015 and other health and safety regulations, such as the preparation of specific method statements and making workers aware of the location of utilities and their easements where works are undertaken in proximity to utilities. In addition, relevant HSE guidance will be adhered to, including avoiding danger from underground services⁶⁷.
Major accidents associated with fire	As part of the CEMP, construction works will be undertaken in line with Fire Prevention on

⁶⁷ HSE (2014) Avoiding danger from underground services HSG47.

Effect	Appraisal
	Construction Sites: Joint Code of Practice ⁶⁸ . All buildings will be designed with appropriate fire prevention / control measures (e.g. fire doors, extinguishers, etc.) and all external facades and materials will meet the necessary fire resistance standards set out within relevant legislation (e.g. the Building Regulations). Fire management measures, including smoke detectors etc.) will also be installed within the Proposed Development.
Major accidents during construction works	All works will be undertaken in accordance with relevant legislation, standards and guidance, including the Construction (Design and Management) Regulations 2015 and HSE's health and safety in construction ⁶⁹ . Appropriate method statements and risk assessments will be undertaken prior to the commencement of specific activities.
Major accidents as a result of Unexploded Ordnance (UXO)	The UXO risk mapping ⁷⁰ indicates that the Site is within an area that has low UXO potential. In the unlikely scenario that UXO is found on Site during construction, all works will cease until a UXO expert undertakes a full assessment and clears the Site for construction to continue.

⁶⁸ RISC Authority and The Fire Protection Association (2022) Fire Prevention on Construction Sites: The Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation (10th Edition).

⁶⁹ HSE (2006) Health and safety in construction (HSG150).

⁷⁰ [Risk Maps | Zetica UXO](#)

6. Landscape and Visual

Technical Baseline

Introduction

- 6.1 The technical baseline is informed by a study of published documentation, a review of aerial and published mapping data and information gained during field work. The field work was undertaken during April 2026 to gain an understanding of the landscape and visual baseline context and to identify potential viewpoints to be used for the assessment.

Landscape Designations

- 6.2 The Site is not within any National or Local landscape designations. A summary of nearby designations is provided below and indicated on **Figure 6.1**.
- 6.3 The Grade II Queen's Park Registered Park and Garden is located approximately 850m to the south of the Site and Rochdale Cemetery Grade II Registered Park and Garden is located approximately 1.6km to the east.
- 6.4 The Site does not contain any areas of Ancient Woodland but approximately 250m to the west are Ashworth Wood, Jowkin Wood, Car Wood and Bamford Wood which are designated areas of Ancient Woodland.

Other designations

- 6.5 There are a number of heritage designations found within the study area which may contribute to the understanding of landscape value.
- 6.6 The Site does not contain any listed buildings. Within the immediate local landscape is the Grade II listed Bamford United Reformed Church and Grade II listed Sundial in Bamford Chapel Graveyard which are located approximately 90m to the southwest of the Site.
- 6.7 The Site is not located within any Conservation Areas. Within the local landscape are the following Conservation Areas:
- Ashworth Fold Conservation Area located approximately 600m to the west of the Site; and
 - Moorgate Avenue Conservation Area located approximately 1km to the east of the Site.

Landscape Character

- 6.8 The Site is peri-urban in character and located on the western edge of the settlement of Rochdale (**Figure 6.2**). It is influenced by residential built form, undulating topography and field boundary vegetation. A review of the landscape character is provided at a National, District and Local level.

National Character Area

- 6.9 The Site falls within the National Character Area 54 (NCA 54) Manchester Pennine Fringe.⁷¹ The NCA is described as follows:

“The Manchester Pennine Fringe occupies the transitional zone between the open moorlands of the Dark Peak and Southern Pennines, and the densely populated urban conurbation of Manchester. The area wraps around Manchester from Bolton in the north-west to the edge of Hazel Grove in the east, and includes the industrial towns of Bury, Bolton, Rochdale, Oldham, Dukinfield and Glossop.”

- 6.10 The Site is located on the northeastern part of the NCA and forms a small part of this character area.
- 6.11 The NCA is characterised as being a transitional area between the Pennines and the urban edge of Manchester. It contains rolling hills, steep river valleys and extensive views from elevated land. Woodland is concentrated around valleys, and field boundaries change from gritstone walls on upper slopes to hedgerows within lower areas of the landscape. Semi-natural habitats are largely fragmented and limited. The area has a strong industrial heritage and is characterised by mills, railways, canals and reservoirs. Almost half of the area is classified as urban which has a strong influence on its character.

District Landscape Character Assessment

- 6.12 The published landscape character assessment is identified as the Greater Manchester Landscape Character and Sensitivity Assessment.⁷²
- 6.13 The entirety of the Site is located within Landscape Character Area (LCA) 24: Knowl and Rooley Moors, Fringes and Foothills (**Figure 6.3**) and is within the Pennine Foothills (West/South Pennines) Landscape Character Type (LCT).
- 6.14 Land to the northwest and south of the Site falls within LCA 25: River Roch. This LCA is separated from the Site, and the Site does not share any characteristics associated with this LCA.
- 6.15 Two other LCAs can be found within the southern part of the Study Area. These are identified as LCA 26: Prettywood, Pilsworth and Unsworth to the southwest and LCA 27: Simister, Slattocks and Healds Green located to the southeast. The Site is separated from these LCAs and does not share any characteristics.
- 6.16 An extract of the published LCT is provided within **Appendix 6.1**.
- 6.17 The key characteristics which are relevant to the Site as identified within the Pennine Foothills (West/South Pennines) LCT are summarised below:
- 6.18 The Pennine Foothills (West/South Pennines) LCT is a transitional landscape located between the urban edge and the West Pennines and contains land which is rolling and undulating. The land use is dominated by pasture and enclosed by stone walls and

⁷¹ National Character Profile 54. Manchester Pennine Fringe. Natural England. January 2013.

⁷² Greater Manchester Landscape Character and Sensitivity Assessment. LUC. August 2018.

hedgerows interspersed with extensive areas of woodland, reservoirs, and recreational land use. There is a rural character which is influenced by scattered stone farmhouses and historic settlements, with an extensive network of footpath routes and PRow. Views vary within the LCT with enclosed wooded valleys being intimate in character and long-distance panoramic views possible from elevated land to the north. Modern influences are present within the LCT, with the M62, pylons and urban development influencing the landscape at a local level.

Local Landscape Character

- 6.19 The Site has been assessed at a local level based on a review of its existing landscape elements and features which may influence its character. These characteristics are summarised within **Appendix 6.2**.

Landscape Receptors

- 6.20 The following landscape receptors have been identified as having potential to be affected by the Proposed Development:

- NCA 54 Manchester Pennine Fringe;
- LCA 24: Knowl and Rooley Moors within the Pennine Foothills (West/South Pennines) LCT (Landscape Character Type);
- LCA 25 River Roch;
- LCA 26 Prettywood, Pilsworth and Unsworth; and
- LCA 27 Simister, Slattocks and Healds Green.

Visual Context

- 6.21 The baseline visual studies have reviewed the visibility of the Site and potential extent of visibility of the Proposed Development based on the preparation of a GIS Zone of Theoretical Visibility Map (ZTV) (**Figure 6.5**).
- 6.22 The ZTV has been prepared based on a review of topography (**Figure 6.4**), built form and vegetation cover and identifies areas within the landscape within which the Proposed Development may be visible and to inform the proposed viewpoint selection. The building heights used for the ZTV were based on the maximum potential heights of new built development as set out in the High-Level Development Specification (13m in height above finished floor level, with an additional tolerance of +/-2m from existing levels).
- 6.23 The visual envelope generated by the GIS ZTV mapping identifies that views of the Proposed Development will be likely within a 3km radius from the centre of the site. The ZTV identifies that the widest views are likely from 3km away on elevated land to the north near Hunger Hill, and land to the west near Old Birtle and Wind Hill. Potential wider views are also possible from small stretches of the Rochdale Way (2.75km away) on elevated land to the south.

- 6.24 Within these wider views (between 1.5km and 3km from the site), the site forms a small proportion of the view and is viewed within the context of the settlement edge, with only small changes expected to the views.
- 6.25 The Rochdale Way is located approximately 250m to the west of the Site and follows the approximate route of the Naden Brook through the Ashworth Valley through areas of dense woodland. Views of the Site from this long-distance route are not possible as a result of the woodland cover and intervening vegetation and the Proposed Development is not likely to generate Significant Effects from this long-distance route.
- 6.26 The ZTV identifies that the majority of the views of the site are likely to occur within 1.5km where it is expected that the greatest visual change will occur.
- 6.27 Jowkin Lane located along the western edge of the Site is a bridleway and from this route partial glimpsed views of the Site can be seen from various locations and at gaps in vegetation. For much of this route the vegetation flanking Jowkin Lane limits visibility.
- 6.28 Views are experienced at short distances and within 1km for users of the network of permissive routes which run through the Site. These views are peri-urban in their context with the existing residential edge providing the overarching visual character and the overhead pylons influencing the visual context.
- 6.29 Residents whose properties overlook the Site at the northern and southern edges will experience views at short distances and on a permanent basis for these residents views will be seen within 0.5km. Users of the sports pitches and recreational facilities located to the immediate east of the Site will also experience short distance views of the Site, with residential built form and a peri-urban context and character already forming the overarching character for these receptors.
- 6.30 The following visual receptors have been identified as having potential to be affected by the Proposed Development:

Residents

- Residents living at properties on Furnbarn Road;
- Residents living at properties whose properties overlook the northern edge of the Site; and
- Residential properties at the southern edge of the Site off Norden Road.

Recreational users of footpath routes

- Recreational users of public bridleway on Jowkin Lane;
- Recreational users of PRow routes within the Site;
- Recreational users of permissive routes within the Site;
- Recreational users of PRow to the northeast of the Site within 0.5km; and
- Recreational users of PRow routes to the northwest of the Site within 1.5km.

Transient users:

- Users of Jowkin Lane;
- Users of Lower Jowkin Lane;
- Users of Furnbarn Road; and
- Users of Norden Road.

Other users

- Users of sports facilities to the east of the Site.

6.31 In order to illustrate the effects on views experienced by the identified visual receptors, a series of viewpoints have been identified.

6.32 Initial viewpoint locations were determined through the baseline studies and agreed upon via consultation with RBC (see **Table 1.1**). The initial viewpoint locations and initial photosheets are within **Appendix 6.3**.

6.33 Further viewpoints have been identified following the baseline studies and the proposed viewpoints to be included are identified as follows and their locations indicated on **Figure 6.6 and Figure 6.7**.

6.34 The photography included within the assessment will be prepared in accordance with the technical guidance produced by the Landscape Institute.⁷³ Should Accurate Visual Representation photomontages be requested, these will be provided as part of the assessment.

- Viewpoints 1 and 2: View from permissive path within the Site;
- Viewpoint 3 and 4: View from PRoW FP107 within the Site;
- Viewpoint 5: View from PRoW FP87 within the Site;
- Viewpoint 6: View from PRoW FP37 from Furbarn Lane;
- Viewpoint 7: View from Norden Road to the south of the Site;
- Viewpoint 8, 9, 10 and 11: View from public bridleway BP104 on Jowkin Lane;
- Viewpoint 12 and 13: View from PRoW FP87 within the Site;
- Viewpoint 14: View from public bridleway BP104 on Jowkin Lane;
- Viewpoint 15: View from PRoW FP20 from playing fields to the east of the Site;
- Viewpoint 16: View from PRoW FP39a to the northwest of the Site;

⁷³ Visual Representation of Development Proposals, Technical Guidance Note 06/19, Landscape Institute, September 2019.

- Viewpoint 17: View from PRow FP107 to the east of the Site;
- Viewpoint 18 and 19: View from Norden Road to the southeast of the Site;
- Viewpoint 20: View from PRow FP9 to the northwest of the site;
- Viewpoint 21: View from PRow public bridleway 52 to the west of the Site;
- Viewpoint 22: View from PRow RUPP55 (Road Used as Public Footpath) to the northwest of the site;
- Viewpoint 23: View from PRow FP24 near Hunger Hill to the north of the site; and
- Viewpoint 24: View from Rochdale Way to the south of the site.

6.35 The representative viewpoints will be used to inform the assessment of effects on the identified landscape and visual receptors within the standalone Landscape and Visual Impact Assessment (LVIA) which will form an appendix to the ES Chapter on landscape and visual effects. Some of the representative views will also be used to support the assessment of effects for the receptors with significant effects considered in the ES Chapter.

Consultation

6.36 **Table 1.1** sets out the technical consultation undertaken to date that helped inform the identification of effects and receptors, as well as informing the proposed assessment methodology.

Table 6.1: Summary of Technical Consultation

Consultee	Date	Method	Summary of Consultation
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Proposed Scope of Assessment

6.37 The below sets out the proposed scope of assessment based on an understanding of the characteristics of the Site, surrounding area and the Proposed Development (**Chapter 4**). Where environmental effects are considered unlikely to be significant, an appropriate evidence base has been provided to justify the 'scoping out' of these effects ensuring the EIA and ES only assess those effects considered 'likely' to be significant.

Effects Scoped Out

6.38 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this.

- 6.39 Whilst effects considered unlikely to be significant will not be reported in the ES, a standalone LVIA report will be prepared as an appendix to the ES to document the effects for all the landscape and visual receptors (i.e. including all likely effects – both significant and insignificant).

Landscape Effects

Changes to landscape character of NCA 54: Manchester Pennine Fringe

- 6.40 The Proposed Development will not be sufficient to change the key characteristics or prevailing landscape character of the NCA. This is due to the wide geographic extent of the NCA, the Sites relationship and proximity to the existing settlement and the limited scale of the Site in relation to the wider NCA. The prevailing characteristics of the NCA will remain largely unaffected by the Proposed Development.
- 6.41 Therefore, changes to landscape character (NCA 54) due to the introduction of the Proposed Development are not considered to be significant and will not be considered further in the EIA or reported in the ES.

Changes to landscape character of LCA 25: River Roch, LCA 26: Prettywood, Pilsworth and Unsworth and LCA 27: Simister, Slattocks and Healds Green

- 6.42 There would be no direct effects on the landscape character or landscape features of LCA 25: River Roch, LCA 26: Prettywood, Pilsworth and Unsworth or LCA 27: Simister, Slattocks and Healds Green.
- 6.43 Indirect effects on landscape character arising from visibility of the Proposed Development would not be sufficient to change the key characteristics or prevailing landscape character. This is due to the Site being separated physically from these LCAs as a result of the undulating landform and intervening blocks of vegetation found along the Naden Brook to the northwest and west, and the existing settlement and built form to the south limiting intervisibility.
- 6.44 Changes to the landscape character within these LCAs (LCA 25, LCA 26 and LCA 27) due to the introduction of the Proposed Development is not considered to be significant and will not be considered further within the EIA or reported in the ES.

Visual Effects

Changes to the visual environment for users of the Rochdale Way

- 6.45 The ZTV identifies that visibility of the Proposed Development for users of the Rochdale Way located approximately 250m to the west of the site will be limited and views screened by dense vegetation found along the Naden Brook.
- 6.46 The Proposed Development would not significantly alter the character or amenity of views from the Rochdale Way and the changes are not considered to be significant and will not be considered further in the EIA or reported in the ES.

Changes to visual environment (beyond 1.5km) due to the introduction of the Proposed Development

- 6.47 The Proposed Development would be visible from some viewpoints beyond 1.5km, as demonstrated by the 3km ZTV plan provided at **Figure 6.2**. However, within such views it would appear as a small element in the background of the view and seen alongside other built form in the peri-urban context of a similar scale and character.
- 6.48 The ZTV also shows there are extensive areas beyond 1.5km where no visibility is expected. Where visibility is indicated it is generally from elevated areas within the landscape where the Proposed Development would be read as part of the settlement edge of Bamford. The Proposed Development would not significantly alter the character, quality or amenity of these long-distance views. Therefore, changes to the visual environment as a result of the appearance of the Proposed Development to visual receptors beyond 1.5km from the Site are not considered to be significant and will not be considered further in the EIA or reported in the ES.

Changes to private visual amenity (beyond 0.5km from the Site) due to the introduction of the Proposed Development

- 6.49 In most landscape and visual assessments, unless specifically requested by the LPA (and in accordance with guidelines contained within GLVIA3), assessment of visual impacts is restricted to potential impacts on the visual amenity of publicly accessible places. Assessment of effects on views from private residential properties is not undertaken unless there is potential for the residential visual amenity of the property to be affected. The assessment will include potential effects on residential properties within 0.5km of the Site which have direct views towards the Site and for which the residential visual amenity of the property could potentially be affected.
- 6.50 For residential properties beyond 0.5km from the Site, residential amenity is unlikely to be affected given the peri-urban context of the Site where views of the settlement edge form part of the existing visual experience and separation distances of over 1km would prevent development being considered overly dominant or overbearing. The change to views would be seen as part of the existing peri-urban context and would not be incongruous.
- 6.51 Therefore, changes to private visual amenity beyond 1km from the Site will not be considered further within the EIA or reported in the ES.

Changes to visual amenity due to the introduction of the Proposed Development (specified visual receptors: Transient users of Lower Jowkin Lane and Transient users of Furbarn Road)

- 6.52 Transient users travelling along Lower Jowkin Lane and Furbarn Road will be separated from the Site as a result of boundary vegetation running along these routes which limits and obscures visibility. This vegetation provides a contained and secluded character for much of this route and limits views to the east.
- 6.53 Although the Proposed Development will be located within close proximity, the presence of the proposed landscape offset along the western edge of the Site and the proposed primary mitigation will reduce the effects for users of these routes.

- 6.54 Therefore, the effect on visual amenity of the above visual receptors is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Effects Scoped In

- 6.55 **Table 6.2** outlines the effects (and associated receptor[s]) that are considered to be likely and potentially significant and therefore will be assessed within the EIA and reported in the ES.
- 6.56 It is envisaged that the majority of significant effects will occur during the construction phases, with the effects during the operational phases reducing over time once the proposed mitigation reaches maturity.

Table 6.2: Potential Likely Significant Effects for Assessment

Effect	Receptor(s)	Applicable Stage(s)
Landscape Effects – Changes to key characteristics of the Landscape Character	Characteristics and qualities associated with the LCA 24: Knowl and Rooley Moors within the Pennine Foothills (West/South Pennines) LCT (Landscape Character Type).	Construction and Operation
Visual Effects – Changes to Visual Amenity	Residents living at properties on Furnbarn Road	Construction and Operation
	Residents living at properties whose properties overlook the northern edge of the Site	Construction and Operation
	Residential properties at the southern edge of the Site off Norden Road	Construction and Operation
	Recreational users of public bridleway on Jowkin Lane	Construction
	Recreational users of PRow routes within the Site	Construction and Operation
	Recreational users of permissive routes within the Site	Construction and Operation
	Recreational users of PRow to the northeast of the Site	Construction
	Recreational users of PRow routes to the northwest of the Site	Construction

Effect	Receptor(s)	Applicable Stage(s)
	Transient users of Jowkin Lane	Construction
	Transient users of Norden Road	Construction
	Users of sports facilities to the east of the Site	Construction

Assessment Methodology of Potential Likely Significant Effects

- 6.57 The approach and methodology used will be based upon recognised guidance produced by the Landscape Institute and the Institute of Environmental Management and Assessment's Guidelines for Landscape and Visual Impact (GLVIA), 3rd Edition.⁷⁴
- 6.58 Reference will also be made to Natural England's guidance: An Approach to Landscape Character Assessment.⁷⁵
- 6.59 The methodology will also refer to published guidance from the Landscape Institute, namely Technical Advice Note (24/01)⁷⁶ Notes and Clarification, Technical Advice Note (06/19) Visual Representation of Development Proposals⁷⁷.
- 6.60 A standalone LVIA report will be prepared as an appendix to the ES to inform the assessment process, determine which effects on receptors will be significant and document the assessment of both significant and non-significant effects.
- 6.61 This will be an iterative process within the ES, in which testing will determine whether effects are likely to be significant. If no likely significant effects are reported following the preparation of the LVIA then a standalone LVIA will be provided rather than a dedicated ES Chapter.
- 6.62 Landscape and Visual effects will be assessed separately and throughout the assessment a subjective judgement and narrative will be provided which will be underpinned by an informed professional opinion against the criteria set out within the methodology as identified within GLVIA3. The narrative which supports the conclusions on landscape and visual effects will be used to explain the rationale of the resulting effects to the assessor.

⁷⁴ Guidelines for Landscape and Visual Impact Assessment, LI and IEMA, 2013.

⁷⁵ An Approach to Landscape Character Assessment, Natural England, (second version with minor revisions 2018).

⁷⁶ Notes and clarifications on aspects of Guidelines for Landscape and Visual Impact Assessment, Third Edition, Landscape Institute Technical Guidance Note 2024-01, August 2024.

⁷⁷ Visual Representation of Development Proposals, Technical Guidance Note 06/19, Landscape Institute, September 2019.

Study Area

- 6.63 The study area for the assessment is determined as being 3km from the centre of the Site and is indicated by the geographical extents on **Figure 6.1: Site Location and Context**.
- 6.64 This has been informed by the ZTV mapping of potential visibility, a review of the Site context and potential views, and a review of the landscape baseline context. The study area is deemed appropriate for the scale and nature of the proposals. The ZTV will be updated during the assessment when additional information on building heights is available.

Scenario for Assessment

- 6.65 The assessment of landscape and visual effects is proposed to be undertaken for the following scenarios and will be based on the deviation from the current baseline conditions of the existing landscape character and visual receptors of the Site and the surrounding area:
- Construction Stage, which will be temporary (the high-level principles are set out in **Chapter 4**);
 - Operational Stage at Completion, which will include the following assumptions:
 - Use of open spaces and recreational spaces;
 - SuDS and drainage elements fully integrated into landscape;
 - Proposed landscape within development plots and open spaces will be planted at day 1 and will not yet be at maturity; and
 - Ongoing habitation of completed development.
 - Operational Stage at Year 15, which will include the following assumptions:
 - Use of open spaces and recreational spaces;
 - SuDS and drainage elements fully integrated into landscape;
 - Maturation of proposed landscape and open spaces, with trees, woodland, hedgerows, grassland scrub and all associated planting within open spaces at maturity;
 - Landscape within development plots at maturity; and
 - Ongoing habitation of completed development.
- 6.66 The Proposed Development will be considered, along with an assessment of the 'sensitivity' of the identified landscape character receptor or visual receptor. This will be determined by establishing the 'value' of the landscape or view and 'susceptibility to change' of the receptor in relation to the Proposed Development. From this, the potential magnitude of 'change' from the Proposed Development is predicted and assessed. The methodology and approach in undertaking this impact assessment is

based upon informed and reasoned professional judgement, taking into account a combination of quantitative and qualitative factors.

- 6.67 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of change (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined following this through professional judgment.

Limitations and Assumptions

- 6.68 To ensure transparency within the EIA process, the following limitations and assumptions have been identified in relation to the Landscape and Visual Impact Assessment:
- An assessment of nighttime landscape and visual effects will not be provided as the Site is not identified as being within any designations of relevance to dark skies or tranquillity (e.g. National Landscapes or National Parks).
 - Photoviewpoints selected for the assessment are not intended to illustrate every possible location from where the Proposed Development may be visible but intend to provide a representative selection of views from a variety of locations, distances and orientations and cover a variety of visual receptors. Professional judgement will be used to assess the effects of the Proposed Development and when defining effects which are and are not significant.
 - No access will be possible from private properties, and no assessment will be made from upper windows of private properties, with assumptions made on the potential visibility for residential receptors.
 - The assessment of visual effects will be completed from publicly accessible locations.
 - The assessment will be based on the maximum extent of the Proposed Development and height parameters as set out within the parameters plans and will allow for a worst-case scenario.

7. Socio-Economics and Human Health

Baseline Summary

Socio-economics and Human Health Impact Areas

- 7.1 The Site is located within the local authority of Rochdale, which is defined for the purposes of the socio-economics and human health assessment as the 'Local Impact Area'. Rochdale is situated within Greater Manchester, which forms the 'Wider Impact Area' for the purposes of the assessment.
- 7.2 The total resident population of Rochdale is c. 236,000, accounting for c. 8% of Greater Manchester's total population of c. 3.0 million. 62% of Rochdale's residents are of working age (aged 16-64)⁷⁸ which is slightly lower than the corresponding proportions across Greater Manchester (64%) England (63%).

Economic Activity and Employment

- 7.3 Over the year to March 2026, the average economic activity rate amongst the working-age resident population of Rochdale (73%) was lower than Greater Manchester (76%) and England as a whole (79%)⁷⁹. Similarly, the working-age employment rate was also lower locally (67%) than in Greater Manchester (72%) and England (76%).
- 7.4 As of June 2026, there were c. 8,670 people claiming out-of-work benefits in Rochdale principally for the reason of being unemployed⁸⁰.

Labour Market and Industry

- 7.5 The Office for National Statistics' (ONS) 2024 Business Register & Employment Survey (BRES) estimated that there were 89,000 jobs in Rochdale, equating to 6% of the c. 1.5 million jobs in Greater Manchester⁸¹. Rochdale supported 5,000 jobs in the construction sector, equating to 6% of total employment locally, which was marginally higher than the sector's representation across Greater Manchester and England (both 5%).

Housing

- 7.6 The former Rochdale Borough Core Strategy⁸² sought the delivery of at least 460 net additional dwellings per annum (dpa) over the period 2012 to 2028, equivalent to 7,360 dwellings across the plan period. This requirement has subsequently been replaced by the adopted Places for Everyone Joint (PfE) Development Plan⁸³ for Greater Manchester.

⁷⁸ ONS via Nomis (2026) Population Estimates – local authority based by single year of age 2024

⁷⁹ ONS via Nomis (2026) Annual Population Survey – April 2025 - March 2026.

⁸⁰ ONS via Nomis (2026) Claimant Count: June 2026.

⁸¹ ONS via Nomis (2026) Business Register and Employment Survey: 2024.

⁸² Rochdale Borough Council (2016), *Rochdale Core Strategy*, Policy C1: Delivering the Right Amount of Housing in the Right Places.

⁸³ Greater Manchester Combined Authority (2024), *Places for Everyone Joint Development Plan Document*, Policy JP-H1: Scale, Distribution and Phasing of New Housing Development, Table 7.2. Adopted 21 March 2024.

7.7 PfE sets a housing requirement for Rochdale of 10,472 dwellings over the period 2022 to 2039, equivalent to an annual average of 616 dpa.

7.8 Ministry of Housing, Communities & Local Government (MHCLG) data⁸⁴ indicates that between 2012/13, the commencement of the former Core Strategy period, and 2024/25, the latest year of data, a total of 7,894 net additional homes were delivered in Rochdale, equivalent to an average of 607 dpa. Therefore, historic delivery in Rochdale has been broadly in line with (albeit marginally lower than) the borough's currently-adopted PfE targets.

Education Infrastructure

7.9 Several privately-operated nurseries are present in the locality of the Site. The closest providers are Bamford Academy Pre-School, located c. 0.8 miles travel distance from the Site, and Kids Planet Gables (c. 1.3 miles).

7.10 Five primary schools⁸⁵ are identified within a 2-mile travel distance⁸⁶ from the Site, including:

- Bamford Academy, located c. 0.7 miles travel distance from the Site, with 70 available places;
- St Michael's Church of England Primary School, Bamford, c. 0.8 miles, 4 available places;
- Whittaker Moss Primary School, 1.2 miles, 10 available places (but is proposed to close);
- St Vincent De Paul Roman Catholic Primary School, 1.5 miles, 47 available places; and
- Caldershaw Primary School, 1.5 miles, 1 available place.

7.11 Collectively, the above five primary schools have capacity to accommodate 132 additional pupils, reducing to 122 places if excluding Whittaker Moss Primary School, which is proposed to close.

7.12 Five secondary schools⁸⁷ are identified within a 3-mile travel distance⁸⁸ from the Site, including:

⁸⁴ Ministry of Housing, Communities and Local Government (2025), *Live Tables on Housing Supply: Net Additional Dwellings*, Table 122: Net Additional Dwellings by Local Authority District, England, 2001/02 to 2024/25.

⁸⁵ Department for Education (2026) 'Get Information About Schools' [Online]. Available at: <https://www.get-information-schools.service.gov.uk/>

⁸⁶ Education Act (1996) Walking Distances. The Act outlines that 2 miles is the maximum that pupils under the age of 8 can be expected to travel to access education.

⁸⁷ Department for Education (2026) 'Get Information About Schools' [Online]. Available at: <https://www.get-information-schools.service.gov.uk/>

⁸⁸ Education Act (1996) Walking Distances. The Act outlines that 3 miles is the maximum that pupils over the age of 8 can be expected to travel to access education.

- Oulder Hill Leadership Academy, c. 1.7 miles, with 348 available places;
- Newhouse Academy, c. 2.4 miles, with 76 available places;
- Matthew Moss High School, c. 2.8 miles, with 2 available places;
- Holy Family Roman Catholic and Church of England College, c. 2.3 miles, operating at 18 places over-capacity; and
- Falinge Park High School, c. 2.8 miles, operating at 6 places over capacity respectively.

7.13 Collectively, the above five secondary schools have capacity to accommodate 426 additional pupils⁸⁹.

7.14 There are a number of schools providing for Special Educational Needs (SEN) in Rochdale which could be accessible from the Proposed Development. SEN provision in Rochdale in closest proximity to the Site includes:

- Oak Haven School, accommodating pupils aged 7-16 with Education, Health and Care Plans (EHCPs);
- Redwood Secondary School, accommodating pupils aged 11-19 with a range of special educational needs and disabilities; and
- Norden Primary Academy, accommodating pupils aged 3-11, with specialist provision supporting speech, language and communication needs and autism spectrum condition.

Healthcare Infrastructure

7.15 The NHS 'Find a GP' online search tool⁹⁰ identifies that the closest GP surgeries to the Site are Norden Surgery (c. 1.2 miles travel distance), Edenfield Road Surgery (c. 1.7 miles) and Birtle View Medical Practice (c. 1.8 miles).

7.16 It should be noted that Norden Surgery is a GP branch of Ashworth Street Surgery in Rochdale; it only opens when a doctor has a scheduled clinic and is not currently accepting new patient registrations. Edenfield Road Surgery and Birtle View Medical Practice are accepting new patients.

7.17 As outlined in NHS Healthy Urban Development Unit (HUDU) guidance⁹¹, the Royal College of GPs recommends that a ratio of one GP (assumed fully-qualified, full-time equivalent, FTE) per 1,800 registered patients is a suitable benchmark to consider the capacity of primary healthcare facilities⁹².

⁸⁹ Not making deductions for those schools which are operating over capacity.

⁹⁰ NHS (2026) 'Find a GP' [Online]. Available at: <https://www.nhs.uk/service-search/find-a-gp>

⁹¹ Healthy Urban Development Unit (2009) HUDU Planning Contribution Model: Guidance Notes

⁹² Note that this is only an indicative measure of healthcare capacity, and cannot account for site-specific factors, such as the floorspace, age, quality and configuration of individual facilities.

- 7.18 Application of this ratio to the current GP and patient numbers⁹³ at Edenfield Road Surgery, and Birtle View Medical Practice suggests that, on aggregate they are operating within indicative capacity, with an average provision of approximately one qualified permanent FTE GP per 1,645 registered patients.

Active Travel and Sustainable Transport

- 7.19 The northern boundary of the Site adjoins the existing residential area of Bamford and therefore can integrate with the settlement's existing active travel network. A network of Public Rights of Way (PROWs) crosses the Site.
- 7.20 The Site is served by the existing public transport network. The nearest bus stop is located on War Office Road (c. 0.6 miles from the Site), with services including the 17, 163A, 433, 442, 467 and 468, alongside a number of school services. These routes provide connections to destinations including Rochdale, Norden, Bury, Middleton, Manchester and Fairfield General Hospital.
- 7.21 Castleton railway station is located c. 3.1 miles travel distance from the Site. The station is located on the Calder Valley rail corridor and provides direct services to destinations including Rochdale and Manchester Victoria, with wider connections available through the rail network.

General Indicators of Health

- 7.22 The Government's Department for Health and Social Care (DHSC) reports⁹⁴ on various indicators regarding health outcomes in Rochdale in comparison to regional and national benchmarks, a summary of which is presented below⁹⁵:
- Life expectancy for both men (77.3 years) and women (81.5 years) in Rochdale is lower than in the wider North West region (78.3 years and 82.2 years, respectively) and nationally (79.7 years and 83.5 years, respectively);
 - The proportion of adults in Rochdale classified as overweight or obese (68%) is higher than the proportions recorded across the North West (67%) and England (65%). Childhood prevalence of obesity is also higher in Rochdale, where 25% of Year 6 children are obese, including severe obesity, compared with 24% across the North West and 22% across England;
 - A lower percentage of adults are physically active⁹⁶ in Rochdale (59%) than across the North West (66%) and England (68%);
 - As a wider determinant of health, the proportion of children in relative low-income families⁹⁷ in Rochdale (32%) is higher than both the regional (25%) and national (20%) rates;

⁹³ NHS Digital (2026) General Practice Workforce: June 2026

⁹⁴ Department for Health and Social Care (2026). Local Authority Health Profiles: Rochdale

⁹⁵ Office for Health Improvement and Disparities (2026), *Fingertips Public Health Profiles: Local Authority Health Profiles*, Department of Health and Social Care, accessed 23 July 2026.

⁹⁶ Defined as undertaking a minimum of 150 minutes of moderate physical activity (e.g. brisk walking; cycling for travel or leisure; playing individual or team sports; gym exercises; gardening) per week.

⁹⁷ 'Relative low-income households' defined as those with income below 60% of the average in that year.

- The mortality rate in people aged under 75 from all causes is higher in Rochdale (427 per 100,000 people) than across the North West (377) and England as a whole (321); and
- As an indicator of mental health and wellbeing, the rate of emergency hospital admissions for intentional self-harm is lower in Rochdale (120 per 100,000 people) than across the North West (126), but higher than across England (117).

Proposed Scope of Assessment

- 7.23 The below sets out the proposed scope of assessment based on an understanding of the characteristics of the Site, surrounding area and the Proposed Development (**Chapter 4**). Where environmental effects are considered unlikely to be significant, an appropriate evidence base has been provided to justify the ‘scoping out’ of these effects ensuring the EIA and ES only assess those effects considered ‘likely’ to be significant.

Effects Scoped Out

- 7.24 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this.

Social cohesion, inclusive design and access to community facilities [Proposed Development’s residents, workers and visitors and existing local communities]

- 7.25 Developments should connect with existing communities (for example through layouts and access points which avoid physical barriers and severance), whilst land use and spaces should encourage social interaction, taking into account principles of inclusive and age-friendly design.
- 7.26 The Site is currently predominantly agricultural land, and as such, the Proposed Development will result in no displacement of any existing residential communities. The Site’s location in the edge of a well established residential area, will enable coherent integration with existing residential and commercial areas and social infrastructure. The Site is within walking distance of two local centres, Bamford (located C. 0.6 miles to the east) and Norden (c. 1.2 miles to the north). These include a range of key services and facilities, including food stores, a library, newsagents, pharmacy and post office. Other nearby facilities include medical/health services and community facilities.
- 7.27 The Site will provide green infrastructure and open space, which will be accessible to future residents of the Site and other potential users (such as visitors and existing neighbouring communities). These uses will foster social interaction and provide a focal point for community activities.
- 7.28 New public realm will be implemented with a strong consideration of principles related to inclusive design, taking account of guidance⁹⁸ regarding best practice for ensuring that developments can be accessed and used by all in a way that effectively fosters social connections, recognising and accommodating differences in the way people use

⁹⁸ Ministry of Housing, Communities and Local Government (2019) Planning Practice Guidance: Housing for older and disabled people – Inclusive Design (para 017)

the built environment as a result of factors such as age and disability. The new public realm will therefore further support local social cohesion and accessibility.

- 7.29 Therefore, given the new on-site and existing local provision, social cohesion, inclusive design and access to community facilities for the Proposed Development's residents, workers and visitors and existing local communities is not considered to be significant and will not be considered further in the ES.

Crime reduction and community safety [Proposed Development's residents, workers and visitors and existing local communities]

- 7.30 Sites will be kept secure during construction to ensure that the potential for crime and anti-social behaviour is minimised. As such, Site security arrangements during the construction stage will be in line with the requirements set out in the Construction (Design and Management) Regulations 2015⁹⁹.
- 7.31 Once operational, developments should incorporate design elements and site management measures to help 'design out' crime, to help people feel secure, again, minimising the potential for crime and anti-social behaviour. As such, the design of the Proposed Development will be informed by 'Secure by Design' principles, and appropriate design and site management measures (for example, personnel and CCTV) will be implemented to ensure that the potential for crime and anti-social behaviour is minimised.
- 7.32 Therefore, crime reduction and community safety for the Proposed Development's residents, workers and visitors and existing local communities is not considered to be significant and will not be considered further in the ES.

Access to healthy food [Proposed Development's residents, workers and visitors and existing local communities]

- 7.33 Access to healthy and nutritious food can improve diet and prevent chronic diseases related to obesity. Healthy food options should be available and easily accessible to those using and working at new developments to enable and promote healthy lifestyles.
- 7.34 A number of smaller food stores and larger supermarkets, including Tesco Express (located c. 0.8 miles travel distance to the west of the Site), Morrisons (1.6 miles) in Heywood and Aldi (2.4 miles), Asda (2.6 miles) and Tesco Superstore (2.7 miles) located in Rochdale are present in the locality and will be accessible by the new residents of the Site.
- 7.35 Therefore, access to healthy food for the Proposed Development's residents, workers and visitors and existing local communities is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Access to training opportunities [labour force]

- 7.36 Employment and income are key determinants of personal and societal socio-economic and physical and mental health, and the availability of training opportunities is key to ensuring people are able to access fulfilling future employment opportunities over the

⁹⁹ Secretary of State (2015) Construction (Design and Management) Regulations 2015.

long term. New development can improve people's access to training opportunities through, for example, delivering apprenticeships and other employment and training programmes during the construction stage and on-Site once operational.

- 7.37 Whilst the Proposed Development could deliver opportunities for people to access training (such as apprenticeships and/or placements during construction), it is considered that these are likely to comprise only a limited proportion of the total jobs supported during the construction stage. Whilst a beneficial effect which could help meet local needs for apprenticeship and other training opportunities, their delivery is anticipated to be of a scale which would be unlikely to be significant.
- 7.38 Therefore, access to training opportunities for the labour force are unlikely to be significant and will not be considered further in the ES.

Access to employment opportunities during operation [labour force]

- 7.39 As noted above, employment and income are key determinants of personal and societal socio-economic and physical and mental health.
- 7.40 The Proposed Development comprises residential uses only and will not provide commercial or other non-residential floorspace that would generate employment opportunities during the operational stage. As such, no direct operational-stage jobs are anticipated to arise from the occupation of the development.
- 7.41 Therefore, employment opportunities during operation for the labour force are not expected to arise as a result of the Proposed Development. This effect is unlikely to be significant and will not be considered further in the ES.

Access to secondary education facilities [local education facilities and pupils]

- 7.42 Strong, vibrant, sustainable and cohesive communities require good quality, accessible public services and infrastructure. Access to education facilities has a direct positive effect on human health and is vital towards ensuring employment prospects, personal and social development and strong communities.
- 7.43 The DfE's Pupil Yield Data Dashboard¹⁰⁰ provides pupil yield multipliers, which can be used to estimate the additional pupil demand generated by a Proposed Development within a specific local authority area.
- 7.44 Based on application of pupil yields per home sourced from the DfE Pupil Yield Data Dashboard, it is anticipated that up to 350 homes at the Proposed Developments could generate demand for approximately 58 secondary pupil places.
- 7.45 Based on a review of DfE data¹⁰¹ (as outlined in the Socio-economics and Human Health baseline section), there are five secondary schools located within 3-miles travel distance from the Site. These schools collectively have a combined available capacity of 426 places, indicating that the existing secondary education provision is sufficient to accommodate the anticipated demand arising from the Proposed Development. As

¹⁰⁰ Department for Education (2026) 'Estimating Pupil Yield from Housing Development: Rochdale' [Online]. Available at: <https://department-for-education.shinyapps.io/pupil-yields-dashboard/>

¹⁰¹ Department for Education (2026) 'Get Information About Schools' [Online]. Available at: <https://get-information-schools.service.gov.uk/>

such, it is not expected that the Proposed Development will rise significant adverse effects on secondary education infrastructure.

- 7.46 Therefore, secondary education is not considered likely to give rise to significant effects, given the existing available capacity identified locally, and will not be considered further within the ES.

Access to active travel and sustainable transport options [Proposed Development's residents, workers and visitors and existing local communities]

- 7.47 Active travel and sustainable travel options should be accessible to those living and working at, and otherwise using, new developments to enable and promote healthy and sustainable lifestyles, through facilitating physical activity and zero / low emissions transport, such as walking, cycling and public transport options.
- 7.48 The Proposed Development will provide pedestrian and cyclist access off Furbarn Road. It is anticipated that existing PROWs will be retained and enhanced, providing access for pedestrians and cyclists.
- 7.49 As noted in the Socio-economics and Human Health baseline section, the Proposed Development will also be well served by the existing public transport network, including bus and rail links, and can integrate with the existing active travel network in Bamford, which the Site boundary directly adjoins.
- 7.50 These measures and the Site's accessible location will contribute to maximising the local residential population's access to active travel and sustainable travel options, which will be beneficial and facilitate enhancement of the health and wellbeing of future Site users (i.e. residents, visitors and workers), albeit it is acknowledged that the number of people affected is likely to be relatively low at the scale of the total population in the local and wider impact areas¹⁰².
- 7.51 The Proposed Development's impact on accessibility and active travel connections are also considered in detail under the topic of Transport and Access in this EIA Scoping Report (see **Chapter 5**).
- 7.52 Therefore, access to active travel and sustainable transport options for the Proposed Development's residents and existing local communities are unlikely to be significant and will not be considered further in the ES.

Access to open space and sports & recreation facilities [Proposed Development's residents, workers and visitors and existing local communities]

- 7.53 Providing secure, convenient and attractive open / green space, public amenity space and facilities for sports and leisure activities can lead to increased levels of physical activity and reduce levels of heart disease, strokes and other ill-health problems that are associated with both sedentary occupations and stressful lifestyles. There is also a

¹⁰² Further details regarding the Local (Rochdale) and Wider (North West) Impact Areas are provided below under 'Assessment Methodology for Likely Significant Effects'.

growing body of evidence to suggest that access to open spaces and facilities for exercise is important in helping to maintain and / or improve mental health¹⁰³.

- 7.54 The Proposed Development will provide informal and formal open space and play space within the north western part of the Site, and a network of connected green corridors running east to west within the northern part of the Site.
- 7.55 A variety of sports facilities exists within the area surrounding the Site. This includes Bamford Fieldhouse Cricket Club, Bamford Football Club and Rochdale Tennis Club adjacent to the west of the Site, with playing fields and recreational facilities including tennis courts, a cricket pitch and football pitches. Also Bamford Bowling Club and function rooms to the east of the Site.
- 7.56 Ashworth Valley is located to the west of the Site and features a network of public footpaths, riverside tracks and woodland trails along the route of the Naden Brook. Queen's Park is located c. 0.9 miles to the south of the Site, which includes various sport and leisure facilities, including tennis courts, a football pitch, cricket pitch, boating lake and BMX course. Queen's Park also features two dedicated children's play areas.
- 7.57 Existing local built provision also includes Heywood Sports Village (c. 1.5 miles to the south of the Site) which includes an artificial turf pitch, a grass pitch, gym, swimming pool, and a sports hall, and Oulder Hill Leisure Complex (c. 1.9 miles to the east of the Site), which provides gym, swimming pool, sauna and steam room. Additional open space and recreation provision is available further afield within the wider Rochdale area, meeting a broader range of needs.
- 7.58 Therefore, access to open space & recreation facilities for the Proposed Development's residents and existing local communities will not be considered further in the ES.

Effects Scoped In

- 7.59 **Table 7.1** outlines the effects (and associated receptor[s]) that are considered to be likely and potentially significant and therefore will be assessed within the EIA and reported in the ES.

Table 7.1: Potential Likely Significant Effects for Assessment

Effect	Receptor(s)	Applicable Stage(s)
Employment generated during construction	Labour Force	Construction
Provision of new housing	People requiring housing	Operation
Access to education facilities (early years, primary and SEND)	Local education facilities and pupils	Operation

¹⁰³ NHS Healthy Urban Development Unit (2019) Rapid Health Impact Assessment Tool (4th Edition)

Effect	Receptor(s)	Applicable Stage(s)
Access to primary healthcare facilities	Local primary healthcare facilities and patients	Operation

Assessment Methodology of Potential Likely Significant Effects

7.60 The following background surveys/studies have been/will be completed.

Table 7.2: Background Surveys/Studies

Survey/Study/Analysis/ Evaluation	Overview	Date of Completion
Completed		
Desk based study of publicly accessible socio-economic and human health data	Data obtained to understand prevailing socio-economic and human health conditions	July 2026
Pending		
Economic Impact Modelling	Modelling conducted to establish level of magnitude and inform significance of effect	Summer 2026
Further desk-based study of publicly accessible socio-economic and human health data	Data obtained to understand prevailing socio-economic and human health conditions	Summer 2026

- 7.61 Appropriate study areas will be defined, which – in the absence of formal guidance – will be based on an understanding of relevant local and wider economic geographies and a consideration of the extent to which socio-economic and human health effects are likely to be contained therein. A Local Impact Area will be defined to cover the administrative area of Rochdale, with a Wider Impact Area defined to cover Greater Manchester. These are established geographical areas that also reflect existing patterns of labour force containment, recorded by the 2021 Census.
- 7.62 Best practice and methodological guidance will be drawn upon as appropriate to inform key elements of the assessment, including the Additionality Guide¹⁰⁴ and Employment Density Guide¹⁰⁵ produced by the Homes and Communities Agency (HCA, now known as Homes England) and Institute of Sustainability and Environmental Professionals (ISEP) guidance for the effective scoping of social impacts¹⁰⁶, as well as human health¹⁰⁷ and determining its significance in EIA¹⁰⁸. Net additional economic

¹⁰⁴ Homes & Communities Agency (2014. Additionality Guide (4th Edition)

¹⁰⁵ Homes & Communities Agency (2015) Employment Densities Guide (3rd Edition)

¹⁰⁶ ISEP (2025) Social Impact Assessment in Environmental Impact Assessment in the UK

¹⁰⁷ ISEP (2022) Effective Scoping of Human Health in Environmental Impact Assessment

¹⁰⁸ ISEP (2022) Determining Significance for Human Health in Environmental Impact Assessment

impacts will be presented, accounting for a range of economic additionality factors such as leakage¹⁰⁹, displacement¹¹⁰ and multiplier effects¹¹¹.

- 7.63 The sensitivity of receptors will be determined by way of observed change in receptors locally compared to local, regional and national trends. Through observation of a receptor's capacity for change relative to wider comparator areas and / or national standards, the sensitivity of receptors locally will be observed. Consideration will also be given to the priority attributed to specific receptors in strategy and policy terms, particularly in the case of qualitative receptors and those where quantitative evidence is not available. The assignment of sensitivity will be based on professional judgement.
- 7.64 Once the sensitivity of the receptor has been identified, the change attributable to the Proposed Development will be benchmarked against the observed rate of change in the corresponding social, economic or health-related baseline. This will allow for a relative assessment of the magnitude of change that is attributable to the Proposed Development to be conducted.
- 7.65 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of change (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined following this through professional judgment.

Limitations and Assumptions

- 7.66 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:
- The assessment is desk-based and therefore reliant on data and information obtained from a variety of official published sources, such as the ONS's 2021 Census¹¹² and BRES¹¹³. No further verification of these sources will be undertaken (unless otherwise stated in the ES). Each data source has methodological limitations related to data collection and surveys only represent the socio-economic context at a specific point in time;
 - The future baseline will draw upon employment and education¹¹⁴ forecasts respectively produced by Experian¹¹⁵. There are known uncertainties to using such

¹⁰⁹ The measure of the extent to which impacts (such as employment) will occur outside of the defined local and wider impact areas.

¹¹⁰ The measure of the extent to which the Proposed Development will lead to existing businesses or employees within the defined local and wider impact areas relocating activities to the Proposed Development, as opposed to the attraction of new investment and employment arising from the Proposed Development.

¹¹¹ The measure of further economic activity (such as employment, expenditure or income) associated with supply chain expenditure, additional local income (from employment) and longer-term expenditure effects.

¹¹² ONS via Nomis (2022) Census 2021

¹¹³ ONS via Nomis (2025) Business Register and Employment Survey: 2024

¹¹⁴ Department for Education (2026) School Capacity: 2024/25

¹¹⁵ Experian (2026) Local Market Forecasts Quarterly: June 2026

trend-based forecasts (especially in the current context of economic uncertainty), however, the use of such forecasts is considered appropriate for drawing conclusions about how the economy and labour market might change in the future; and

- Where necessary, professional and realistic assumptions will be made and applied, such as those relating to the economic additionality factors of leakage, displacement and multiplier effects.

8. Climate Change

- 8.1 The UK Climate Change Projections (UKCP18)¹¹⁶ set out that climate change is projected to lead to increasing annual temperatures, decreasing summer rainfall and increasing winter rainfall as a result of increasing global Greenhouse Gas (GHG) emissions. This applies to the UK, including the Site.
- 8.2 In this context the EIA Regulations require the consideration of Climate Change, including how resilient the Proposed Development is to the effects of climate change, and how the Proposed Development mitigates its impact on climate change through GHG emissions.
- 8.3 The Institute of Sustainability and Environmental Professionals (ISEP, formerly IEMA), has prepared guidance on Climate Change for EIA practitioners which will be used in the Climate Change scoping assessment for the Proposed Development:
- Assessing Greenhouse Gas Emissions and Evaluating their Significance. Edition 2.1 (including April 2026 Supplementary Guidance)¹¹⁷ (GHG Assessment guidance) – which sets out how GHG emissions should be considered and assessed. This provides a more detailed methodology and focuses on mitigation in determining significance; and
 - EIA Guide for Climate Change Resilience and Adaptation¹¹⁸ (Climate Change Adaptation guidance) – setting out guidance on the scope and consideration of climate projections and effects on development. Crucially, this includes a requirement for adaptation measures to consider the 2080s high emissions scenario projections as a worst-case scenario.

Baseline Summary

GHG emissions

- 8.4 Current baseline conditions regarding greenhouse gas (GHG) emissions have been established at the local authority (RBC) and the regional level (North West) from the latest (2024) UK Government local authority and regional carbon dioxide emissions national statistics: 2005 to 2024¹¹⁹, as presented in **Table 8.1**.
- 8.5 The Site's current GHG emissions are unknown in quantitative terms and for the purposes of the GHG emissions assessment, baseline GHG emissions from the Site are assumed to be zero. This approach ensures a reasonable 'worst-case' scenario regarding the GHG effect of the Proposed Development.

¹¹⁶ <https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/index>

¹¹⁷ <https://www.isepglobal.org/content/iema-guide-assessing-greenhouse-gas-emissions-and-evaluating-their-significance/>

¹¹⁸ <https://www.iema.net/media/mabhqino/iema-eia-climate-change-resilience-june-2020.pdf>

¹¹⁹ <https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics>

Table 8.1: Baseline Local & Regional GHG Emissions

Geographical Area	2024 GHG Emissions (tonnes CO ₂ e)
Site	0
RBC	852,955
North West	38,333,887

- 8.6 The future baseline conditions regarding GHG emissions have been established in the form of carbon budgets set for the UK¹²⁰ as presented in **Table 8.2**. These will be used to contextualise GHG emissions from the Proposed Development in order to establish the magnitude of its net GHG effect.

Table 8.2: UK Carbon Budgets (tonnes CO₂e)

Period	UK
2018 – 2022	2,544,000,000
2023 – 2027	1,950,000,000
2028 – 2032	1,725,000,000
2033 – 2037	965,000,000
2038 – 2042	535,000,000*
2043 – 2047	Not yet set
2048 - 2100	Not yet set

* Published by the Committee on Climate Change in February 2025 and accepted by the UK government but not yet incorporated into law¹²¹.

Climate Conditions

- 8.7 Current baseline climate conditions for the Site have been established from the Met Office's closest automatic weather station, located at Rochdale¹²². Average monthly climatic conditions for the 1991 – 2020 period¹²³ are summarised below in **Table 8.3** showing summer maximum temperature and average summer and winter rainfall, and

¹²⁰ DEFRA (2021). Carbon Budgets. Available at: <https://www.gov.uk/guidance/carbon-budgets>

(Accessed: 07 April 2026)

¹²¹ Climate Change Committee (2025) 7th carbon budget. Available at:

<https://www.theccc.org.uk/publication/the-seventh-carbon-budget/> (Accessed: 07 April 2026)

¹²² <https://www.metoffice.gov.uk/research/climate/maps-and-data/location-specific-long-term-averages/gcw2yrnc0>

¹²³ The closest data available to the assessment period used in the preparation of the UK Climate Projections

providing the baseline against which future climate projections reported in **Table 8.4** are based.

Table 8.3: Current Climate Baseline

Description	Temperature / Rainfall
Summer maximum temperature (°C)	20.0
Average summer rainfall (mm per month)	93.3
Average winter rainfall (mm per month)	118.4

- 8.8 Future baseline climate conditions for the Site have been established from the Met Office's latest climate projections UKCP18¹²⁴ for the 25km OS grid square within which the Site is located (387500, 412500).
- 8.9 These projections comprise forecast changes relative to 1991 to 2020 baseline conditions for annual and seasonal temperatures and rainfall. While the UKCP18 projections are based on data related to earlier averages (1981-2010), this dataset presents the closest data available for assessment. In accordance with ISEP's Climate Change Resilience guidance, projections are taken from the "high" emissions scenario (known as "RCP8.5"), 50th percentile (i.e. median) scenario for the 2030s, 2050s, and 2080s which encompass the anticipated construction and operational stage of the Proposed Development.
- 8.10 In addition to increasing temperatures and changing rainfall patterns, other potential climatic changes include increasing wind speed and winter storms, including more severe storms. Specific metrics for these changes are not available. It is noted that while wind speeds may increase, these changes are small compared to differences between individual years, and further research is required to determine long term projections of winter storm activity.
- 8.11 Projected changes to seasonal and annual temperature and rainfall relative to baseline conditions, which could result in severe weather effects such as droughts, floods and heat waves, are provided in **Table 8.4**.

Table 8.4: Future Climate Baseline

Description	2030s		2050s		2080s	
	Temperature / Rainfall	Change to baseline	Future Temperature / rainfall	Change to baseline	Future Temperature / rainfall	Change to baseline
Summer maximum	20.0	+1.2	21.2	+2.3	22.3	+4.8

¹²⁴ <https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/index>

Description	2030s			2050s		2080s	
	Temperature / Rainfall baseline	Change to baseline	Future Temperature / rainfall	Change to baseline	Future Temperature / rainfall	Change to baseline	Future Temperature / rainfall
temperature (°C)							
Average summer rainfall (mm per month)	93.3	-5%	88.3	-16%	78.3	-31%	64.6
Average winter rainfall (mm per month)	118.4	+2%	120.4	+7%	126.5	+13%	134.4

Proposed Scope of Assessment

- 8.12 As noted above, the UK Climate Projections provide guidance on the anticipated effects of climate change. Using these projections, the UK Climate Change Risk Assessment (UKCCRA)¹²⁵, updated in 2021, identifies potential risks and impacts of climate change across a number of areas including Infrastructure, Health, Communities and the Built Environment.
- 8.13 The Climate Change Resilience guidance identifies potential receptor groups which may be impacted by climate change, these include:
- Buildings and infrastructure receptors (including equipment and building operations);
 - Human health receptors (e.g. construction workers, occupants and site users);
 - Environmental receptors (e.g. habitats and species); and
 - Climatic systems.
- 8.14 **Table 8.5** sets out key risks from the UKCCRA which relate to the Proposed Development, including a high level summary of the potential impacts, and receptors.

Table 8.5: Potential Risks, Impacts and Receptors

Risks	Impacts and Receptors
N1 – Risks to species and habitats from climate change	Changing rainfall patterns and temperatures can impact Site Species and Habitats through reduced climate space.

¹²⁵ <https://www.theccc.org.uk/publication/independent-assessment-of-uk-climate-risk/> (Accessed: 07 April 2026)

Risks	Impacts and Receptors
N2 - Risks to terrestrial species and habitats from pests, pathogens and INNS	Changing rainfall patterns and temperatures can impact Site Species and Habitats by favouring Invasive Non-Native Species (INNS).
N12 - Risks to freshwater species and habitats from pests, pathogens and INNS	Changing rainfall patterns and temperatures can impact Site Species and Habitats by favouring Invasive Non-Native Species (INNS).
N5 – Risks to natural carbon stores and sequestration from changing conditions	Changing climate conditions can impact on Soils ability to sequester carbon through increased risk of wildfires, droughts and permafrost thaw. Flooding can disrupt soil structure, leading to higher erosion rates, which removes topsoil and releases stored carbon.
H1 – Risks to health and wellbeing from high temperatures	Increasing temperatures can impact on Human Health as a result of overheating which can affect construction workers and site users.
H3 – Risks to people, communities and buildings from flooding	Increasing winter rainfall can increase fluvial and surface water flood risk impacting Site Structures and Human Health (construction workers and site users).
H5 – Risks to building fabric	Higher summer temperatures can impact Building Materials and Site Structures , increasing degradation of materials and maintenance requirements.
H7 – Risks to health and wellbeing from changes in air quality	Changes in air quality can impact Human Health leading to an adverse effect on construction workers and site users.
H10 – Risks to water quality and household water supplies	Decreasing summer rainfall may restrict water supply impacting Site Operations . Water pollution can impact Human Health leading to an adverse effect on construction workers and site users.
I2 – Risks for infrastructure from flooding	Increasing winter rainfall can increase fluvial and surface water flood risk impacting Construction Operations, Site Compounds and Site Equipment , as well as operational Site Infrastructure .
I7 – Risks to infrastructure from subsidence	Changing rainfall patterns and temperatures can impact ground conditions, causing cracking, subsidence which can impact Site Infrastructure and Site Structures .

- 8.15 The Proposed Development will also impact on climate change as a result of release of GHG emissions to atmosphere impacting on the **Global Climatic System**.
- 8.16 The below sets out the proposed scope of assessment based on an understanding of the characteristics of the Site, surrounding area and the Proposed Development (**Chapter 4**). Where environmental effects are considered unlikely to be significant, an appropriate evidence base has been provided to justify the 'scoping out' of these effects ensuring the EIA and ES only assess those effects considered 'likely' to be significant.

Effects Scoped Out

- 8.17 The following effects are considered unlikely to be significant and therefore will not be considered further within the EIA or reported in the ES. A factual evidence base has been provided below to support this.

***Changing rainfall patterns and temperatures during construction and operation
[Habitats and Species]***

- 8.18 Changes to future climate including temperature and rainfall, could impact upon site habitats and species.
- 8.19 The Site comprises agricultural land varying from modified grassland to other neutral grassland. The fields are bounded by a mix of native and native species rich hedgerow, some with trees. Habitats within the Site are common and widespread in the local context and the Site is not anticipated to support populations of protected or priority species of more than local importance. These habitats and the habitats to be created are of low sensitivity to climate change according to Natural England Climate Change Adaptation Manual¹²⁶, therefore, the risk of climate change impacts to these habitats is low.
- 8.20 As part of the landscape proposals, new tree and small areas of scrub planting will be undertaken. This in line with the England Biodiversity Strategy¹²⁷ target of creating more woodland to limit the effects of climate change.
- 8.21 Existing boundary features will be retained (except at access points and for required visibility splays). New habitats will include drought-tolerant grassland mixes as appropriate.
- 8.22 In addition, a minimum a 10% Biodiversity Net Gain (BNG), delivered through an offsite habitat bank, will be achieved.
- 8.23 Green infrastructure proposals for the Site will enhance and expand on existing assets to form a comprehensive green network that promotes biodiversity and mitigates the

¹²⁶ Natural England (2020). Natural England Climate Change Adaptation Manual. Available at: <http://publications.naturalengland.org.uk/publication/5679197848862720>

¹²⁷ England Biodiversity Strategy . Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf

anticipated impacts of climate change in accordance with the Natural England Climate Change Adaptation Manual.

- 8.24 Therefore, changes to future climate upon site habitats and species is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Changing rainfall patterns and temperatures impacting terrestrial and fresh water Site Species and Habitats by favouring INNS [Habitats and Species]

- 8.25 Changes to future climate including temperature and rainfall, could impact upon site habitats and species by favouring INNS.
- 8.26 No INNS is currently present on site. Where invasive non-native species are found, plans will be provided for management, including removal, in line with appropriate guidance such as the Great Britain Invasive Non-Native Species Strategy (2023–2030)¹²⁸.
- 8.27 In this context, it is considered that the Proposed Development has potential beneficial impacts for Site Species and Habitats due to mitigation through INNS management and removal.
- 8.28 Therefore, changes to future climate upon terrestrial and fresh water Site Species and Habitats by favouring INNS is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Changing climate conditions on soils [Soils]

- 8.29 Changing climate may impact the Site's ability to store and sequester greenhouse gases. Carbon sequestration through the natural environment can help support carbon reduction. The following has been considered when appraising the effect on the Site's natural carbon stores:
- **Scale of emissions** – the Site area is 19.52ha and there is no peat or woodlands within the Site, therefore, the scale of the site's carbon sequestration is likely to be small;
 - **Magnitude of change** – the Site comprises largely of agricultural land partially bound by hedgerows and trees. The ability of agricultural land to store carbon depends heavily on management which is not currently known. The Proposed Development's Landscape Strategy will consider measures to protect soils and enhance the existing habitats, taking into account changing climate conditions, which is likely to improve the Site's ability to store and sequester greenhouse gases;
 - **Biodiversity** – as noted in the Natural England Carbon Storage Research Report¹²⁹, the most effective form of nature-based solutions for climate change

¹²⁸ DEFRA (2023). The Great British Invasive Non-Native Species Strategy. Available at: <https://www.gov.uk/government/publications/the-great-britain-invasive-non-native-species-strategy>

¹²⁹ Natural England (2021), Carbon Storage and Sequestration by Habitat. Available at: <https://publications.naturalengland.org.uk/publication/5419124441481216>

mitigation are habitat restoration and creation, which supports carbon sequestration. As part of the application for the Proposed Development, a Biodiversity Net Gain (BNG) assessment will be prepared, and a BNG of at least a 10% will be achieved; and

- **Uncertainty** – assessing the carbon sequestration of habitats can be contingent on its maturity, condition and environmental factors which make this estimate inherently uncertain.

8.30 In this context, it is considered that the Proposed Development has a potential to improve the Site's carbon sequestration, however it is not of a significant scale.

8.31 Therefore, changes to climatic conditions impacting soils and its ability to store and sequester carbon is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Increasing summer temperatures during construction [Construction Workers]

8.32 Increasing summer temperatures may lead to health and safety risks for construction employees.

8.33 A Construction Environmental Management Plan (CEMP), secured via planning condition, will be prepared to support the construction of the Proposed Development and will set out climate change adaptation measures to reduce risks to health from overheating such as provision of shaded refuges, scheduling controls such as moving strenuous operations to cooler periods like early mornings or late afternoons, provision of appropriate Personal Protective Equipment (PPE), and potable water supplies during construction.

8.34 Therefore, the effect of increasing summer temperatures on construction workers and their health is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Higher average summer temperatures and risk of building overheating during operation [Site Users]

8.35 Higher average summer mean and daily maximum temperatures as a result of climate change may lead to building overheating, adversely affecting the health and well-being of occupants.

8.36 Prior to construction, homes will undergo an overheating assessment in line with the requirements of Building Regulations Part O¹³⁰ to assess and reduce the risk of summer overheating, taking into account future climate scenarios.

8.37 The ventilation strategy for individual buildings will consider measures to promote high levels of energy efficiency and good indoor air quality and will be confirmed prior to construction.

¹³⁰ MCHLG (2022), Building Regulations Part O. Available at:
<https://www.gov.uk/government/publications/overheating-approved-document-o>

- 8.38 Therefore, higher average summer temperatures and risk of building overheating to site users is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Increasing winter rainfall during construction [Buildings, Construction Workers, Construction Operations, Site Infrastructure]

- 8.39 Increasing winter rainfall can increase fluvial and surface water flood risk impacting buildings, construction workers, construction operations, and site infrastructure.
- 8.40 The CEMP will include measures to protect receptors from the increased flood risk during construction, including:
- Protocols for locating welfare facilities in low-risk areas;
 - Construction phasing and strategic siting of plant and material storage areas; and
 - A construction stage drainage strategy outlining temporary drainage and sediment control measures to manage increased runoff during the construction period.
- 8.41 Therefore, increasing winter rainfall and flood risk is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Increasing winter rainfall during operation [Buildings, Site Users, Site Operations, Site Infrastructure]

- 8.42 Increasing winter rainfall can increase fluvial and surface water flood risk during operation of the Proposed Development.
- 8.43 The Site lies within Flood Zone 1, therefore is assessed to have a very low risk from fluvial sources. However, a Site-specific Flood Risk Assessment (FRA) and the Sustainable Drainage Statement (SDS), including the surface water drainage strategy, and considering future climate change, will be prepared.
- 8.44 Site infrastructure such as sub-stations will be designed in line with relevant climate change guidance to protect site infrastructure from flooding. Potential guidance, where relevant, includes the Energy Networks Associated (ENA) core technical guidance Engineering Technical Report ETR 138, Resilience to Flooding of Grid and Primary Substations¹³¹.
- 8.45 Site infrastructure including roads and pavements will be designed in line with relevant climate change guidance, including the Design Manual for Roads and Bridges (DMRB)¹³², which includes technical guidance document LA 114, Climate; GG 101 / 103, which requires the consideration of climate change vulnerability, and CD 226, Design

¹³¹ ENA (2018). Engineering Technical Report 138, Resilience to Flooding of Grid and Primary Substations. Available at: https://www.ena-eng.org/ena-docs/D0C3XTRACT/ENA_ET_138_Extract_180902050400.pdf

¹³² DMRB (2026). Design Manual for Roads and Bridges (Document selection page). Available at: [Standards For Highways](#)

for new pavement construction, which requires resilience to future climate conditions, such as increased risk and severity of flooding, drought, heatwaves, intense rainfall and extreme weather events.

- 8.46 Therefore, increasing winter rainfall leading to increased flood risk during operation is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Higher summer temperatures during construction and operation [Building Materials, Site Structures, Site Infrastructure]

- 8.47 Higher summer temperatures can impact Building Materials and Site Structures, increasing degradation of materials and maintenance requirements.
- 8.48 The Proposed Development will consider a number of mitigation measures to protect building materials, site structures and site infrastructure from heat related damage such as:

- White or high-albedo materials;
- High thermal mass materials;
- Green roofs and walls;
- External shading devices (shutters, brise soleil etc);
- Using heavy-duty tarpaulins, UV-resistant coverings, and scaffold wraps to protect materials and exposed work areas;
- Using galvanised steel or applying acrylic/polyurethane coatings to prevent heat-induced damage and rust; and
- Green and blue infrastructure to reduce the urban heat island effect.

- 8.49 Details of materials and measures to ensure resilience to climate change will be set out as part of Reserved Matter application(s).

- 8.50 Therefore, higher summer temperatures impacting building materials, site structures and site infrastructure during construction and operation is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Higher summer temperatures during construction and operation [Construction Workers, Site Users]

- 8.51 Increasing summer temperatures may increase pollutant concentrations, including dust and particulate matter, impacting construction workers and nearby sensitive receptors, and site users.
- 8.52 The construction dust and particulate matter emissions will be controlled through the implementation of the mitigation measures in line with the Institute of Air Quality

Management (IAQM) guidance¹³³. The implementation of these tertiary mitigation measures will be secured in the CEMP (which will be conditioned).

- 8.53 Therefore, despite increasing summer temperatures, the effects of construction dust and particulate matter emissions are considered to be not significant with the implementation of the proposed mitigation and will not be considered further in the EIA or reported in the ES.
- 8.54 As set out in **Chapter 5**, the Site is not located within an Air Quality Management Area (AQMA). There are three background monitoring sites, 10 roadside sites, and one kerbside site within 3km of the Site. Since 2021, the annual mean concentrations of NO₂ at all of the identified monitoring sites were below the annual mean objective. In addition, background concentrations of NO₂, PM₁₀ and PM_{2.5} obtained from the background concentration maps provided by Department of Environment Food and Rural Affairs (Defra) for the Site for 2025 are well below the annual mean objectives.
- 8.55 Traffic associated with the Proposed Development may use roads within 200m of the Rochdale Canal SAC; however, total traffic flows on these road links are expected to remain substantially below the screening threshold of 1,000 AADT. Furthermore, concentrations are expected to reduce in the future as a result of the implementation of national and local measures, such as the transition to low emission vehicles and encouraging the use of sustainable travel.
- 8.56 The Proposed Development will meet the performance expectations of the Future Homes Standard. This will include an all-electric design, with heat pumps expected to provide most space heating and hot water. As a result, there will be no combustion sources of emissions that require assessment in the EIA.
- 8.57 Therefore, despite increasing summer temperatures, future users of the Proposed Development are not anticipated to be exposed to significantly increased pollutant concentrations that would exceed the current UK air quality objectives.
- 8.58 In this context, higher summer temperatures leading to increased pollutant concentrations during operation of the Proposed Development are not considered to be significant and will not be considered further in the EIA or reported in the ES.

Risks to water quality and household water supplies during construction and operation [Site Operations, Construction Workers, Site Users]

- 8.59 Changing annual temperatures and rainfall patterns may lead to a reduction of water supply and impact on water quality affecting construction workers, site users and site operations.
- 8.60 The CEMP will include measures to protect receptors from potential climate change effects during construction, including the provision of appropriate drainage and pollution prevention systems. The CEMP will also include measures to monitor and reduce potable water use.

¹³³ Institute of Air Quality Management (IAQM) (2024) Guidance on the Assessment of Dust from Demolition and Construction (Version 2.2). Available at: <https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf> [Accessed: 23/03/2026].

- 8.61 The Proposed Development will include water saving measures built into the design of the Proposed Development, such as water saving fixtures and fittings. To reduce water consumption, homes will target 110 litres/person/day in line with the Building Regulation's higher water efficiency standard.
- 8.62 The incorporation of sustainable drainage systems (SuDS) within the Proposed Development will assist in mitigating the risk of pollution to the local watercourses and existing land drainage network. The proposed surface water drainage, including all proposed SuDS, will be designed in accordance with the National standards for sustainable drainage systems.
- 8.63 Therefore, changing annual temperatures and rainfall patterns impacting water supply and water quality is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Increasing temperatures during operation [Site Infrastructure, i.e. electrical substations, road surfaces]

- 8.64 The detailed design and specification of site infrastructure, including electric substations and road surfaces will take account of climate change, using best practice design to provide long term resilience.
- 8.65 Design of electrical infrastructure will consider climate change effects, including increasing temperatures, and incorporating adaptation measures as outlined in guidance such as the National Grid Climate Change Adaptation report (Round 4 (ARP))¹³⁴.
- 8.66 As above, designing roads will take account of the relevant climate change guidance, including: the Design Manual for Roads and Bridges (DMRB), which includes technical guidance document LA 114, Climate; GG 101 / 103, which requires the consideration of climate change vulnerability; and CD 226, Design for new pavement construction, which requires resilience to future climate conditions, such as increased risk and severity of flooding, drought, heatwaves, intense rainfall and extreme weather events.
- 8.67 Therefore, increasing annual temperatures impacting site infrastructure is not considered to be significant and will not be considered further in the EIA or reported in the ES.

Changes to future climate during operation [Site Infrastructure, Site Structures]

- 8.68 Changing rainfall patterns and temperatures can impact ground conditions, causing cracking and subsidence, which can impact Site Infrastructure and Site Structures.
- 8.69 The Building Regulations¹³⁵ require new developments to consider the impact of ground movement in foundation design. The Proposed Development will be designed in accordance with current regulations, guidance and best practice, and this will

¹³⁴ National Grid (2024). Climate Change Adaptation Report Round 4 (ARP4). Available at: [687761](https://www.nationalgrid.com/uk/687761)

¹³⁵ MHCLG (2013), Building Regulations Part A. Available at: <https://www.gov.uk/government/publications/structure-approved-document-a> (Accessed: 07 April 2026)

include the consideration of changing climate on stability of the ground conditions, influencing foundation design as necessary.

- 8.70 As above, designing roads will take account of the relevant climate change guidance, including: the Design Manual for Roads and Bridges (DMRB), which includes technical guidance document LA 114, Climate; GG 101 / 103, which requires the consideration of climate change vulnerability; and CD 226, Design for new pavement construction, which requires resilience to future climate conditions, such as increased risk and severity of flooding, drought, heatwaves, intense rainfall and extreme weather events.
- 8.71 Therefore, the effect of changes to future climate, including temperature and rainfall upon site infrastructure and site structures is not considered to be significant and will not be considered further in the EIA or reported in the ES

Effects Scoped In

- 8.72 **Table 8.6** outlines the effects (and associated receptor[s]) that are considered to be likely and potentially significant and therefore will be assessed within the EIA and reported in the ES.

Table 8.6: Potential Likely Significant Effects for Assessment

Effect	Receptor(s)	Applicable Stage(s)
GHG emissions	Global Climatic System	Construction / Operation

Assessment Methodology of Potential Likely Significant Effects

- 8.73 The assessment of GHG emissions will be undertaken in accordance with ISEP's GHG Assessment guidance.
- 8.74 The Site will form the principal study area for the assessment; however the assessment will include off-site GHG emissions such as those associated with the manufacture and transportation of construction materials, and those associated with the off-site generation (e.g. at a power station) of grid electricity consumed by the operational Proposed Development.
- 8.75 The GHG assessment of the Proposed Development will consider both the construction and operation stages.
- 8.76 GHG emissions from the construction and operation of the proposed buildings will be estimated using recognised industry benchmarks/targets, for example RIBA 2030 Climate Challenge¹³⁶/ LETI 2020 Design targets¹³⁷ which set out targets on embodied carbon and operational energy demand.

¹³⁶ RIBA 2030 Climate Challenge. Available at: <https://www.architecture.com/about/policy/climate-action/2030-climate-challenge> (Accessed: 07 April 2026)

¹³⁷ LETI Climate Emergency Design Guide. Available at: https://www.leti.london/files/ugd/252d09_3b0f2acf2bb24c019f5ed9173fc5d9f4.pdf (Accessed: 07 April 2026)

- 8.77 Consideration will also be given to the GMCA'S Design Guidance for Net Zero, which sets out a number of targets for space heating, energy use intensity, renewable energy generation, and embodied carbon.
- 8.78 In line with ISEP's GHG Assessment guidance, GHG emissions resulting from the construction and operation stages of the Proposed Development will be evaluated in the context of baseline GHG emissions from the Site, local authority's administrative area and UK region, as well as the future carbon budgets for the UK.
- 8.79 Furthermore, and in accordance with ISEP's GHG Assessment guidance, consideration will also be given to the contribution of the Proposed Development to a science-based net zero trajectory in line with the 2015 Paris Agreement's¹³⁸ 1.5°C pathway.
- 8.80 The assessment of likely significant effects to sensitive receptors will consider the sensitivity of the receptor (on a scale of high, medium, low and negligible) and the magnitude of change (on a scale of large, medium, small and negligible) to determine the level of effect on a scale of major, moderate, minor and negligible. Significant effects will be determined following this through professional judgment.
- 8.81 The global climate system is the receptor for GHG emissions and is considered highly sensitive in accordance with ISEP guidance.
- 8.82 The significance of the Proposed Development's net GHG effect will then be determined by considering the magnitude of its net GHG emissions effect in conjunction with whether it makes an appropriate contribution to the UK's net zero trajectory for a project of its type and also using professional judgment.

Limitations and Assumptions

- 8.83 To ensure transparency within the EIA process, the following limitations and assumptions have been identified:
- Activity Data – In estimating construction and operation stage GHG emissions, third party emissions factors and benchmarks may be applied to estimated parameters, including energy demand. These factors and benchmarks may potentially not fully reflect the actual construction and operation performance of the Proposed Development; however, the proposed approach is nevertheless considered to represent the best available option at this stage;
 - Emission Factors – The future UK electricity grid factors sourced from the Department for Energy Security and Net Zero (DESNZ) are projections which may not reflect the actual emissions associated with grid electricity consumption in future. However, DESNZ projections have slightly underestimated the rate of grid decarbonisation in recent years, so any inaccuracy in these projections may

¹³⁸ UNFCCC (2016). Conference of the Parties, Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015. FCCC/CP/2015/10 (online). Available at: <https://unfccc.int/sites/default/files/resource/docs/2015/cop21/eng/10a01.pdf> (Accessed: 07 April 2026)

serve to over-estimate as well as under-estimate GHG emissions associated with the Proposed Development's future electricity demand; and

- Climate Change Projections - The UK climate projections are dependent on future GHG emission assumptions. UKCP18 uses scenarios for future GHGs that are based on assumptions on future population, economic development and the mitigation of GHG emissions towards international targets. The real world may follow a different pathway altogether and the scientific community cannot reliably place probabilities on which scenario of GHG emissions is most likely. As outlined in the ISEP guidance, for the purposes of the assessment the 2080s RCP8.5 scenario has been considered as a worst case.

9. Methodology for Assessment of Cumulative Effects

Overview

- 9.1 This chapter sets out the methodology for the assessment of cumulative effects which will be undertaken as part of the EIA and reported in the ES.
- 9.2 Regulation 4(2) of the EIA Regulations requires that the EIA identifies, describes and assesses "*the direct and indirect significant effects of the Proposed Development*" on a range of environmental factors, including "*the interaction between the factors*" and "*cumulative*" effects.
- 9.3 The methodology for assessing cumulative effects follows the approach set out in relevant guidance, including:
- Planning Practice Guidance (PPG): Environmental Impact Assessment (Paragraph 024); and
 - Planning Inspectorate: Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment¹³⁹.
- 9.4 Two types of cumulative effects will be considered:
- Effect interactions (also known as intra-project cumulative effects) – the combined or synergistic effects of different environmental effects from the Proposed Development on a single receptor; and
 - In-combination effects (also known as inter-project cumulative effects) – the combined effects of the Proposed Development with other existing and/or approved development schemes.

Assessment Methodology

Effect Interactions

- 9.5 Effect interactions (intra-project cumulative effects) refer to the potential for different environmental effects arising from the Proposed Development to interact and result in a combined or synergistic effect on a single receptor.

Step 1: Identification

- 9.6 Effect interactions will be identified through the following process:
- Review of individual technical topic assessments to identify receptors that are affected by multiple environmental effects (for example, a residential property affected by both noise and air quality effects during construction);

¹³⁹ [Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment - GOV.UK](#)

- Identification of receptors that are particularly sensitive or vulnerable to multiple effects;
- Consideration of temporal overlaps (for example, effects occurring simultaneously during construction); and
- Identification of potential synergistic effects where the combined effect may be greater than the sum of individual effects.

Step 2: Assessment

9.7 Where effect interactions are identified, an assessment will be undertaken to determine whether the combined effects result in a significant cumulative effect. This will consider:

- The nature, magnitude and duration of each individual effect;
- The sensitivity of the receptor to combined effects;
- Any mitigation measures that will reduce individual effects and therefore the cumulative effect; and
- Whether the combined effect is greater than, equal to, or less than the sum of individual effects (i.e., whether there is a synergistic effect).

9.8 The assessment of effect interactions will be presented in a matrix format within the cumulative effects chapter of the ES, identifying receptors, effects, and conclusions on significance.

In-Combination Effects

9.9 In-combination effects (inter-project cumulative effects) refer to the potential for effects from the Proposed Development to combine with effects from other existing and/or approved development schemes.

Step 1: Identification of Projects

9.10 Other developments that may contribute to in-combination cumulative effects will be identified through a review of:

- Development that is under construction within the search area;
- Development that has planning permission within the search area;
- Development that has been submitted but not yet determined within the search area; and
- The residual parcels of the wider development project (i.e. the allocation) within which the Site is located.

9.11 The search area for identifying cumulative schemes will be determined on a topic-specific basis, considering the zone of influence for each environmental topic. As a starting point, projects within 5km have been identified.

9.12 Professional judgement will be applied when determining whether identified schemes should be included in the cumulative assessment, considering factors such as:

- The nature, scale and proximity of the development to the Site;
- The likelihood of the scheme being implemented (for example, outline permissions may be less certain than schemes under construction);
- The potential for effects from the scheme to overlap spatially or temporally with effects from the Proposed Development;
- The availability of sufficient information about the scheme to undertake an assessment; and
- Whether the scheme has been operational for sufficient time that its effects are already reflected in the baseline.

9.13 The list of schemes proposed to be considered in the cumulative assessment is provided in **Table 9.1**. RBC are requested to confirm this list is acceptable in their Scoping Opinion or identify any other projects that may require consideration.

Step 2: Assessment

9.14 For each technical topic where significant effects have been identified for the Proposed Development, the potential for in-combination cumulative effects with identified schemes will be assessed. The assessment will consider:

- Whether effects from other schemes would affect the same receptors as the Proposed Development;
- The spatial and temporal relationship between effects (for example, whether construction periods overlap);
- The significance of effects from other schemes (where information is available);
- Whether effects are additive (cumulative total is the sum of individual effects) or synergistic (combined effect is greater than the sum); and
- The effectiveness of mitigation measures in reducing cumulative effects.

9.15 The assessment of in-combination effects will be presented on a topic-by-topic basis within the cumulative effects chapter of the ES, with conclusions on cumulative significance for each topic.

9.16 Where sufficient information is available about other schemes to undertake a quantitative assessment, a qualitative assessment will be undertaken based on professional judgement and the information that is available (for example, from planning application descriptions or committee reports).

Table 9.1: List of Cumulative Projects

Ref	Planning Reference	Address	Description	Distance and direction from Site (km)	EIA Development ?	Status
1	Residual parcels of Policy JP Allocation 17: Bamford / Norden Submitted applications include: 25/00405/FUL PL/2025/1199	Residual parcels of Policy JP Allocation 17: Bamford / Norden	25/00405/FUL: Demolition of existing dwelling and construction of a residential development for 45 no. dwellings with access and associated works. PL/2025/1199: Erection of retirement living community comprising 49 retirement apartments (category 2 type accommodation), associated communal facilities, landscaping and car parking together with 18 retirement bungalows Assumptions to be formulated for residual parcels of the wider development project (i.e. the allocation) in due course.	Immediately east	No	25/00405/FUL: Pending determination PL/2025/1199: Pending determination No live applications for other parcels of allocation
2	22/00588/FUL	Crimble Mill Crimble Lane Heywood	The restoration of the existing mill, change of use of the upper floors to 33 dwellings and ground floor commercial floorspace (Classes E, F1 or F2), the replacement of the existing road bridge and the removal of the existing footbridge, restoration of the mill pond and leat, the construction of flood alleviation measures; the upgrading of Crimble Lane from Rochdale Road, the improvement of public rights of way, hard and soft landscaping, and other engineering works; the demolition of the other (non-listed) existing buildings, remediation of the site and the formation of a development platform and the construction of 31 dwellings and associated works and engineering operations; the construction of 150 dwellings accessed from Woodland Road and Crimble Lane and the regrading of the site together with associated	0.8m southeast	Yes	Granted

Ref	Planning Reference	Address	Description	Distance and direction from Site (km)	EIA Development ?	Status
			engineering/retention works, the provision of surface water balancing ponds, open space, and other works; together with other associated works including landscape and ecological improvements.			
3	20/00687/FUL	Chamber House Farm, Rochdale Road East, Heywood	Solar farm with ancillary buildings, security fencing, CCTV, access tracks and landscape planting	1.7km south east	No	Granted
4	25/00680/FUL	Scout Moor Wind Farm Rochdale	Construction and operation of 17 wind turbines with a maximum height to the tip of the blade of 180 metres (above ordnance datum), together with associated ancillary infrastructure comprising crane pads and hardstanding; new access tracks; improvement and widening works to Scout Road; onsite substation; underground electrical infrastructure and cabling; fencing and boundary treatments; external lighting; drainage infrastructure; habitat and moorland restoration works; public right of way works; landscaping; temporary construction compound and staging area; underground electrical grid connection to the Rossendale Bulk Supply Point; and associated engineering works; alongside the retention of and improvements to existing access tracks associated with the existing Scout Moor Wind Farm.	2.2km north	Yes	Pending determination

Ref	Planning Reference	Address	Description	Distance and direction from Site (km)	EIA Development ?	Status
5	18/01399/FUL	Land at Royle Road, Rochdale, OL11 3EH	Erection of 201 dwellings and a block of 24 apartments including the demolition of existing structures together with associated groundworks to the north of the Site, public open space, landscaping, and vehicular access from Royle Road.	2.7km east	No	Under construction ¹⁴⁰
6	18/01407/OUT	Land at Royle Road, Rochdale, OL11 3EH	Outline application (including means of access) with all other matters reserved for the redevelopment of the Site including the erection of 9 no. industrial units (use class B1, B2, and B8)	2.7km east	No	Under construction ¹⁴¹
7	23/00431/HYBR	Castleton Sidings Heywood Road Rochdale	Full application for residential development for 191 dwellings including access, landscaping, open space together with erection of sub-station and foul water pump station	3km south east	No	Granted
8	16/01399/HYBR	Land Bound By Manchester Road, Hareshill Road And Pilsworth Road West Of Junction 19 Of The M62 Rochdale	Part full/part outline planning application for the development of land at South Heywood, including the demolition of a number of existing on-site buildings and structures. Full consent sought for the construction of a new link road between Junction 19 of the M62 and Pilsworth Road, the widening of part of Pilsworth Road, together with associated junction improvements, landscaping, lighting and other works including the importation of material and engineering works in order to construct the link road. Outline consent (with all matters reserved for future approval except access) sought for a major mixed-use development comprising supporting residential uses comprising up to 1000 dwellings (Class	3.1km south	Yes	Granted

¹⁴⁰ As the massing is not significantly progressed, this is not considered as part of the baseline and the cumulative effects of the full project will be considered.

¹⁴¹ As above.

Ref	Planning Reference	Address	Description	Distance and direction from Site (km)	EIA Development ?	Status
			C3); employment uses (Classes B2/B8) comprising up to 135,460m2 Gross Internal Area(GIA); a new primary school (Class D1); Class A1/A2/A3/A5 uses comprising up to 2500m2 GIA which includes no more than 499m2 of A1 uses; together with associated landscaping, open space and sports pitches, drainage, ecological enhancements, cycleway and footpath linkages, infrastructure and other works ancillary thereto. (Application accompanied by an Environmental Statement)			
9	24/01007/FUL	Trub Farm Manchester Road Rochdale OL11 2XG	Erection of 158 affordable dwellings including 2no. three-storey apartment blocks, with associated access, car parking, private gardens, open space, play facilities, and landscaping, together with new pedestrian access to Rochdale Canal towpath	3.2km south east	No	Granted
10	22/01190/FUL	Land South Of Cowm Top Lane Castleton Rochdale	Residential development of up to 445 dwellings with associated access, car parking, landscaping and infrastructure	3.6km south east	No	Granted
11	23/00650/HYBR	Land At Stakehill, Off Rochdale Road, Middleton	Hybrid planning application (EIA development) seeking: Full Planning permission for the erection of residential development of 233 dwellings (Use Class C3) with associated landscaping, means of access, drainage, and other necessary supporting infrastructure Outline planning permission with access (all other matters reserved) for residential development of up to 1147 dwellings (Use Class C3), mixed-use development, land for primary school	4km south east	Yes	Pending determination

Ref	Planning Reference	Address	Description	Distance and direction from Site (km)	EIA Development ?	Status
			extension, local centre and MUGA, landscaping, and supporting infrastructure.			
12	25/00418/OUT	Land Bound To The North By Brightley Brook, Pilsworth Fisheries, Pilsworth Road & Heywood Distribution Park; The West By Whittle Brook; The East By Birch Industrial Park & Agricultural Fields; And The South By The M62 Corridor	Application for outline planning permission (all matters reserved) for a national-scale employment development, comprising Storage & Distribution (Use Class B8) and Industrial (Use Classes B2, E(g)(ii) and E (g)(iii)) uses (including, but not limited to, Logistics, Manufacturing Processes and Data Centres), with supporting ancillary uses including Hotel (Use Class C1), Commercial, Business & Service (Uses Class E (a-g)), Education (Use Class F1(a)), Local Community (Use Class F2(a-c) uses, Sui Generis uses (in accordance with the Uses Schedule), and associated demolition works, landscaping, drainage, ecological enhancements, highway works, cycleway and footpath linkages and other ancillary infrastructure	4.1km south	Yes	Pending determination

Step 2: Assessment

- 9.17 For each technical topic where significant effects have been identified for the Proposed Development, the potential for in-combination cumulative effects with identified schemes will be assessed.
- 9.18 The assessment will consider:
- Whether effects from other schemes would affect the same receptors as the Proposed Development;
 - The spatial and temporal relationship between effects (for example, whether construction periods overlap);
 - The significance of effects from other schemes (where information is available);
 - Whether effects are additive (cumulative total is the sum of individual effects) or synergistic (combined effect is greater than the sum); and
 - The effectiveness of mitigation measures in reducing cumulative effects.
- 9.19 The assessment of in-combination effects will be presented on a topic-by-topic basis within the cumulative effects chapter of the ES, with conclusions on cumulative significance for each topic.
- 9.20 Where insufficient information is available about other schemes to undertake a quantitative assessment, a qualitative assessment will be undertaken based on professional judgement and the information that is available (for example, from planning application descriptions or committee reports).
- 9.21 In-combination climate change effects will not be considered in the cumulative ES Chapter. ISEP's GHG Assessment Guidance recognises the cumulative contributions of all GHG emissions sources to global climate change and the climatic system as a high sensitivity receptor. For this reason, the approach to the cumulative effects assessment of GHGs differs from many other EIA topics where projects within a geographically bounded study area are considered.
- 9.22 For GHGs, unlike air pollution for example, there is no greater climate change effect from a local GHG emissions source than from one on the other side of the world. Indeed, all global cumulative GHG sources are relevant to the effect on climate change, which is taken into account when defining the global climatic system receptor as being of high sensitivity to further emissions.
- 9.23 Effects of GHG emissions from specific cumulative projects therefore in general should not be individually assessed, as there is no basis for selecting any particular (or more than one) cumulative project that has GHG emissions for assessment over any other. Instead, the contextualisation of GHG emissions incorporates by its very nature the cumulative contributions of other GHG sources which make up that context, whether geographical (in the case of UK carbon budgets) or sector-bounded. Therefore, a form of cumulative assessment of GHG emissions / savings will be undertaken as part of the climate change ES Chapter, and it will not be reported separately in-combination.

- 9.24 In relation to topics proposed to be scoped out (**Chapter 5**), no significant in-combination effects are likely. This will be re-appraised as part of the assessment of cumulative effects in the ES, taking on board any new information since the submission of the EIA Scoping Report.

10. Summary

- 10.1 This EIA Scoping Report has been prepared to support a request for a Scoping Opinion from RBC in relation to the Proposed Development at land at Norden Road, Bamford.
- 10.2 The Proposed Development comprises up to 350 dwellings. A High Level Development Specification is provided in **Chapter 4**.
- 10.3 Based on the baseline context and the nature and scale of the Proposed Development, the following technical topics have been scoped out of the EIA on the basis that significant environmental effects are not anticipated:
- Built Heritage;
 - Archaeology;
 - Biodiversity;
 - Transport;
 - Noise and Vibration;
 - Air Quality;
 - Agricultural Land;
 - Water Environment;
 - Ground Conditions and Contamination;
 - Lighting;
 - Waste; and
 - Major Accidents and/or Disasters
- 10.4 Justification for scoping out these topics is provided in **Chapter 5**.
- 10.5 The following technical topics have been scoped into the EIA and will be subject to detailed assessment within the ES:
- Landscape and Visual;
 - Socio-Economics and Human Health; and
 - Climate Change.
- 10.6 The proposed scope and methodology for assessment of these topics is set out in **Chapters 6 – 8**.

- 10.7 An assessment of cumulative effects will also be undertaken in accordance with the methodology set out in **Chapter 9**.
- 10.8 Following receipt of the Scoping Opinion from RBC, the EIA will be progressed in accordance with the agreed scope and methodology. The ES will be submitted alongside the planning application and will be structured as set out in **Chapter 2**.
- 10.9 RBC is respectfully requested to provide their Scoping Opinion within the statutory timescale of five weeks from the date of receipt of this request, in accordance with Regulation 15(4) of the EIA Regulations.

Appendix 1.1: Record of Consultation

Consultee	Date	Method	Summary of Consultation
<u>Biodiversity</u>			
Rochdale Borough Council (Planning, Strategic Planning and Woodland and Natural Capital team)	14/01/26	Meeting	<u>Local Nature Recovery Strategy (LNRS)</u> It was agreed that LNRS is not intended to preclude development. It was advised that the whole Site is considered comprehensively to respond to the LNRS designation and understand where compensation for the loss can be created elsewhere on site. Rochdale advised that the LNRS is about ecological connectivity. LNRS is about how we are going to foster ecological connectivity to the wider area. It is about identifying the 'Core Areas' and then building out from this. As long as the allocation-wide masterplan can demonstrate fostering connectivity, the proposals will meet the requirements of the LNRS.
<u>Noise and Vibration</u>			
Rochdale Borough Council	07/07/26	email	Email sent to the Environmental Health department. Email outlined the proposed survey methodology and assessment approach. Awaiting a response.
<u>Built Heritage</u>			
Rochdale Borough Council Conservation Officer	15/11/21	Written pre-application advice	Advice was sought in relation to an earlier iteration of the Proposed Development. The conservation officer advised that any future application should be accompanied by a heritage statement to consider the impact on the significance and setting of designated and non-designated heritage assets. The advice also identified a number of non-designated heritage assets with potential to be affected by development on the Site which were not included on the Local List. These additional assets have been proportionately assessed in the Heritage Statement (Appendix 5.1).

Consultee	Date	Method	Summary of Consultation
Rochdale Borough Council – Conservation Officer	21/07/26	Email	Confirmation of proposed scope of heritage assets for assessment within the Heritage Statement to accompany the planning application.
<u>Landscape and Visual</u>			
Rochdale Borough Council	15.07.20 26	Email	Proposed viewpoint locations and initial photosheets were provided to the LPA to seek agreement on the LVIA views (Appendix 6.3). Further views have been identified following a more detailed visual analysis, and agreement has been gained from the LPA for these additional views (Figure 6.6 and Figure 6.7) Views were agreed by LPA as being suitable for inclusion within the LVIA.

Appendix 2.1: Preliminary Environmental Management Plan

Project specific measures to avoid and/or prevent significant adverse environmental effects (i.e. mitigation measures) have been considered through EIA scoping when appraising likely environmental effects.

At this stage, this has focussed on 'primary mitigation' (i.e. inherent mitigation, comprising fundamental aspects of the project design) and 'tertiary mitigation' (i.e. standard environmental commitments / practices).

In order to support RBC and other stakeholders, the mitigation measures that have been identified at this stage have been collated into a single schedule of mitigation (referred to as the Preliminary Environmental Management Plan) set out below. This will be developed further as part of the ES.

It is envisaged that mitigation will be secured through suitably worded planning conditions or another mechanism, where appropriate, and the Preliminary Environmental Management Plan will be utilised by the Applicant and appointed contractor(s) to control mitigation commitments and assurance over their implementation.

Mitigation Measure	Description / Details of Measure
Primary Mitigation	
Layout	The new homes will not be located within the easements associated with the overhead power lines. The maximum extent of development is not defined at this stage; however development will be limited to specific zones. There will be provision for informal and formal open space and play space within the easements defined above, as well as along the north western boundary of the Site. Informal open space will also be integrated throughout the Site, with a focus on retaining existing hedgerows and creating green links running east-west to maintain the connection between the retained sports pitches to the east and the open countryside to the west. The open space strategy for the power-line easements will also allow for streets, private drives and paved footpath and cycle routes.
Landscape and Biodiversity Strategy	Trees/vegetation along the boundaries of the Site will be retained, with the exception of any access points and associated visibility splays. Green space is proposed between the powerline easement and the north-western boundary of the Site. This retains an open buffer between the areas proposed for development and the non-designated asset of Higher Jowkin Farm. This space can be used for biodiversity planting and will maintain a rural quality to the setting of the non-designated asset. Areas of medium distinctiveness grassland will be retained and enhanced to achieve the best possible floristic diversity and ecological condition. The proposed green infrastructure along the western boundary of the Site will allow for enhancement to the condition of retained grassland and planting of more trees and linear features. This will be subject to 30-year management in accordance with BNG legislation. Provide the proposed landscape offset along the western boundary of the Site. Implement the proposed landscape planting, including trees, woodland, hedgerows, grassland, scrub and other associated planting. Planting should be undertaken in accordance with the approved landscape strategy. The proposed public realm is intended to follow inclusive-design principles.
Public Rights of Way Strategy	The network of PROWs throughout the Site will be retained and enhanced.

Mitigation Measure	Description / Details of Measure
Surface Water Drainage Strategy	The surface water drainage strategy will follow SuDS Management Train approach described in the Ciria C753 ¹⁴² , with flows being attenuated and treated within open SuDS. The level of surface water treatment delivered will be aligned with the type of water receptor i.e. surface water sewer or groundwater. Infiltration will be discounted as soakaways where not feasible.
Lighting Strategy	All lighting installations will meet Institute of Lighting Professionals (ILP) Guidance Notes for the Reduction of Obtrusive Light 2020¹⁴³. Measures to mitigate effects from obtrusive light include the selection of the correct type of luminaire, the use of shields, hoods, as well as the design and positioning of lights (e.g. power, orientation, and height of the luminaire). All temporary / permanent lighting installations will be designed / installed in line with best practice and relevant standards (e.g. CIE) 126: Guidelines for Minimising Sky Glow¹⁴⁴), which includes the requirements to minimise upward light emitted and contributions toward sky glow.
Water Efficiency	The Proposed Development will include water saving measures built into the design of the Proposed Development, such as water saving fixtures and fittings. To reduce water consumption, homes will target 110 litres/person/day in line with the Building Regulation's higher water efficiency standard.
Energy Strategy	The Proposed Development will meet the performance expectations of the Future Homes Standard. This will include an all-electric design, with heat pumps expected to provide most space heating and hot water.
Tertiary Mitigation	
Construction Environmental Management Plan (CEMP)	A CEMP will be prepared by the appointed contractor(s) in advance of commencing construction works. This document will provide detailed measures / controls to avoid and effectively manage potential adverse effects on the environment. This will be submitted to RBC for approval. <u>General Measures</u> UK legislation and guidance issued by the HSE will be adhered to, thereby ensuring the safety of the on-site workforce. A CEMP should include measures in line with all relevant legislation, government and industry standards, codes of practice and best practice measures, inclusive of, but not limited to:

¹⁴² [The SuDS Manual C753F](#)

¹⁴³ Institute for Lighting Professionals (2020). Guidance Note 01/20 for the Reduction of Obtrusive Light.

¹⁴⁴ CIE (1997) 126: Guidelines for Minimising Sky Glow.

Mitigation Measure	Description / Details of Measure
	• Temporary fencing and hoarding will be erected around the perimeter of the Site at the outset of construction; • The Site security arrangements for the Proposed Development during the construction stage will be in line with the requirements set out in the Construction (Design and Management) Regulations 2015 and appropriate levels of security (personnel/CCTV) will be provided to minimise crime / anti-social behaviour;; • Construction works will be undertaken in line with Fire Prevention on Construction Sites: Joint Code of Practice¹⁴⁵; • Construction working hours will be 08:00 to 18:00 Monday to Friday; 08:00 to 14:30 on Saturday; and no construction on Sundays and Bank Holidays; • Safe working methods in relation to the overhead power lines and coal mining areas; and • Climate change adaptation measures to reduce risks to health from overheating such as provision of shaded refuges, scheduling controls such as moving strenuous operations to cooler periods like early mornings or late afternoons, provision of appropriate Personal Protective Equipment (PPE), and potable water supplies. <u>Biodiversity</u> • Precautionary working methods in relation to protected and notable fauna, where appropriate; • Pre-commencement ecological checks, where required, such as for badger; • Timing of vegetation clearance outside the main bird nesting season where practicable, or following inspection by a suitably qualified ecologist; • Protection of retained habitats and any adjacent ecological features through appropriate fencing and construction exclusion zones; and • Where invasive non-native species are found, plans will be provided for management, including removal, in line with appropriate guidance such as the Great Britain Invasive Non-Native Species Strategy (2023–2030)¹⁴⁶. <u>Light Pollution Management</u>

¹⁴⁵ RISC Authority and The Fire Protection Association (2022) Fire Prevention on Construction Sites: The Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation (10th Edition).

¹⁴⁶ DEFRA (2023). The Great British Invasive Non-Native Species Strategy. Available at: <https://www.gov.uk/government/publications/the-great-britain-invasive-non-native-species-strategy>

Mitigation Measure	Description / Details of Measure
	Lighting will be controlled through the implementation of best practice measures, informed by the ILP 'Guidance Note 1 for the reduction of obtrusive light'¹⁴⁷ and include: • The use of sufficient lighting units for the task in hand to avoid the need for tall, wide beam lighting units; • The reduction of fixed lighting outside working hours; and • Any requirements for ongoing monitoring and liaison with stakeholders. <u>Contamination</u> • All on-site enabling and construction activities will be undertaken in line with Construction Design and Management Regulations¹⁴⁸ (CDM), CL:AIRE Development Industry Code of Practice¹⁴⁹, as well as best practice measures (i.e. tool-box talks, personal protective equipment (PPE), use of Respiratory Protective Equipment (RPE) and working method statements as required) and led by the contractor when appointed. <u>Waste Management</u> • In the event that material is required to be disposed of off-site, this will be transferred to another local site where there is a requirement for surplus materials. It is not envisaged that additional material from off-site is required to be imported to achieve necessary levels; • The CEMP will be informed by the waste provisions of the Environmental Protection Act 1990¹⁵⁰ and the Environmental Protection (Duty of Care) Regulations 1991¹⁵¹ and will set out the principles and legal requirements relating to waste (including hazardous waste); • The CEMP will also describe how materials will be managed efficiently and disposed of legally during construction. It will also outline the aims, objectives and on-going management responsibilities, including management practices, to be implemented during the construction stage, and will set targets for the reduction, diversion from landfill and reuse of waste; and

¹⁴⁷ [GN01 For the reduction of obtrusive light 2021](#)

¹⁴⁸ [The Construction \(Design and Management\) Regulations 2015](#)

¹⁴⁹ [DoW:CoP](#)

¹⁵⁰ Environmental Protection Act 1990 No. 43 Available at: <https://www.legislation.gov.uk/ukpga/1990/43/contents>

¹⁵¹ Environmental Protection (Duty of Care) Regulations 1991 No. 2839. Available at: <https://www.legislation.gov.uk/uksi/1991/2839/made#:~:text=The%20duty%20requires%20such%20persons,person%20or%20to%20a%20person>

Mitigation Measure	Description / Details of Measure
	- If identified, contaminated materials will be adequately characterised both chemically and physically in line with relevant guidance, such as Waste Classification: Guidance on the classification and assessment of waste. Hazardous materials generated in the construction stage will be managed within legal requirements¹⁵², ensuring appropriate storage, collection and disposal in line with sustainable management practices where possible. <u>Traffic Management</u> - The CEMP will incorporate a Haulier's Code of Practice which contractors will be required to adhere to, where required; - Where possible, all PRoWs will remain open throughout the construction stage. However, where necessary, some sections may be temporarily closed or diverted (and these will also be subject to Order approval/s); and - A construction traffic management plan (CTMP) as part of the CEMP is likely to be required by a condition attached to any planning permission. This will define the number, distribution and types of construction vehicles expected and will include details of routeing to prevent the use of inappropriate routes by HGVs and delivery timings to ensure that HGV deliveries avoid the peak hours. <u>Air Quality and Dust Management</u> - Construction dust and particulate matter emissions will be controlled through the implementation of the mitigation measures in line with the Institute of Air Quality Management (IAQM) guidance¹⁵³. This will include prevention measures, such as screening stockpiles of materials and dampening exposed soils as appropriate, and set out requirements for ongoing monitoring and liaison with the local community and RBC. <u>Noise and Vibration</u> - Preventative measures, such as construction hours, construction routes, construction methods, the use of site hoarding, the use of acoustic barriers, the use of appropriate equipment, siting equipment away from NSRs, community engagement, noise monitoring, best practicable means (BPM), best available technology (BAT), etc. <u>UXO Management</u>

¹⁵² Including: Control of Pollution (Special Wastes) Regulations 1980, The Dangerous Substances (Conveyance by Road in Road Tankers and Tank Containers) Regulations 1981, Environmental Protection Act 1990.

¹⁵³ Institute of Air Quality Management (IAQM) (2024) Guidance on the Assessment of Dust from Demolition and Construction (Version 2.2). Available at: <https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf> [Accessed: 23/03/2026].

Mitigation Measure	Description / Details of Measure
	- In the unlikely scenario that UXO is found on Site during construction, all works will cease until a UXO expert undertakes a full assessment and clears the Site for construction to continue. <u>Soil Management</u> - It is assumed that there will be a cut and fill balance and that this will be subject to a Material Management Plan (as part of the CEMP) to ensure soil resources are maintained within the Site and are managed to avoid any deterioration in soil quality; and - The Material Management Plan will include a Soil Resource Management Plan. The plan would confirm the different soil types; the most appropriate re-use for the different types of soils; and the proposed methods for handling, storing and replacing soils on-site. <u>Flood Risk and Drainage:</u> - A temporary drainage strategy will be implemented to manage changes to or additional surface water runoff and sub-surface flows during the construction stage, taking account of industry best practice and guidance (i.e. BS 8582:2013 – Code of practice for surface water¹⁵⁴ management for development sites). Temporary drainage strategies often incorporate attenuation features which will remain part of the operational surface water drainage system. - The temporary drainage strategy will include suitable dewatering techniques if required. This will keep workers and local residents safe from groundwater flood risk.
Remediation Strategy	Prior to construction, further site-specific investigation will be undertaken alongside chemical analysis to fully understand the localised areas of contamination. In an event that significant contamination is identified, a programme of mitigation or remediation work will be carried out as part of the enabling works in line with a Remediation Strategy approved by the RBC. The further site investigations will inform assessment of mitigation required in relation to ground gases. This detailed assessment will be in accordance with British Standard BS 8485:2015+A1:2019¹⁵⁵ Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings. Such mitigation will include sub-floor ventilation (to create a pressure relief) and dispersal pathway and specialist membranes within new properties (to ensure no ingress of hazardous ground gasses).

¹⁵⁴ [BS 8582:2013 | 30 Nov 2013 | BSI Knowledge](#)

¹⁵⁵ [BS 8485:2015+A1:2019 | 31 Jan 2019 | BSI Knowledge](#)

Mitigation Measure	Description / Details of Measure
Archaeological Evaluation	Intrusive archaeological investigation of the Site will be carried out in advance of development; the presence or absence of archaeological remains requires verification through archaeological evaluation, prior to development and, pending the extent and heritage significance of any surviving buried remains, further archaeological excavation may be required to mitigate the loss of buried remains during the proposed construction programme. The archaeological evaluation can be undertaken as part of a planning condition rather than as a part of the planning application. This will inform whether further mitigation in the form of archaeological excavation will be required to preserve archaeological remains by record.
Noise Impact Assessment	Operational noise from any plant associated with the Proposed Development will be assessed in a noise impact assessment submitted with the planning application. This will be in accordance with British Standard 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound' (BS 4142)¹⁵⁶. Mitigation is likely to include plant noise limits, specification of plant, location of plant, installation method, etc, and will ensure operational plant noise can be controlled as far as reasonably practicable. This will be secured by planning condition. Suitability of the site for residential use (from existing and future noise sources) will also be assessed in the noise impact assessment. This will be in accordance with ProPG: Planning & Noise – New Residential Development (ProPG)¹⁵⁷, British Standard 8233:2014 'Guidance on sound insulation and noise reduction for buildings' (BS 8233)¹⁵⁸, and World Health Organisation 'Guidelines for Community Noise' (WHO GCN)¹⁵⁹. Mitigation is likely to include a combination of the following: Barrier (e.g. brick wall, timber fence, earth bund, combination, etc). For example, using a barrier to break the line of sight between the noise source and receptor. The level of screening provided would depend on the height, length, alignment, construction, etc of the barrier. The barrier would need to be of a good solid construction, with no gaps or holes along its length;

¹⁵⁶ BSI (2019) British Standard 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound', BSI.

¹⁵⁷ Association of Noise Consultants (ANC), Institute of Acoustics (IOA), Chartered Institute of Environmental Health (CIEH) (2017) 'ProPG: Planning and Noise. Professional Practice Guidance on Planning and Noise. New Residential Development, 2017, IOA & CIEH.

Last Accessed: 30 June 2026 <https://www.ioa.org.uk/sites/default/files/14720%20ProPG%20Main%20Document.pdf>

¹⁵⁸ BSI (2014) British Standard 8233:2014 'Guidance on sound insulation and noise reduction for buildings', BSI.

¹⁵⁹ World Health Organization (WHO) (1999) 'Guidelines for Community Noise', WHO.

Mitigation Measure	Description / Details of Measure
	• Site layout (e.g. buffer zone, offset, stand-off, etc). For example, using buffer zones to increase the distance between the noise source and first line of dwellings. This area could include landscaping, footpaths, parking, internal access roads, front gardens, etc; • Building orientation (e.g. self-screening, barrier, etc). For example, using the first line of dwellings as a 'barrier' to screen the rest of the site and external amenity areas. Placing main gardens on the quieter façade, where practicable; • Internal building layout (e.g. internal room configuration, etc). For example, positioning noise-sensitive habitable room uses (e.g. living rooms, dining rooms, open plan kitchen/living/dining areas, bedrooms, etc.) on the quieter façades and non-habitable room uses (e.g. kitchens, bathrooms, hallways, utility rooms, etc) on the noisier façades, where practicable; and • Building envelope (e.g. glazing specification, alternative means of ventilation, construction, etc). The first line of dwellings overlooking the noise source may need an enhanced building envelope design specification to achieve acceptable internal noise levels. The specific mitigation required will be subject to detailed design at the reserved matters stages (further noise assessment will be secured by planning condition).
Mine Stabilisation	In areas where development is proposed, a programme of drilling and pressure grouting will be completed to stabilise any abandoned mine workings in accordance with CIRIA guidance Abandoned mine workings manual (C758D)¹⁶⁰. These works will include: • Works will be completed using specialist plant and equipment; • Bulk materials will be stored in a manner that prevents any dust egress; • Liquid grouts will be pumped into the mine workings; and • Control measures will be instigated to ensure no egress of liquid grout from the Site boundary. The mine stabilisation works will be designed in a manner so as not to create any environmental impact to the adjacent properties and will reduce the risk of subsidence of any buildings or structures developed as part of the Proposed Development.

¹⁶⁰ https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C758D

Mitigation Measure	Description / Details of Measure
	To enter / disturb / investigate suspected abandoned mine workings (if required), an application must be made to the Coal Authority for a permit to complete investigation works. This will be completed by specialists who are deemed suitably qualified to supervise the process by the Coal Authority. A second permit will be required from the Coal Authority for any mine stabilisation works (post investigation), including detailed designs, construction method statements and validation testing protocols to ensure strict environmental and regulatory control for the works. The works will be secured by pre-commencement condition, which ensures all mine workings are investigated and stabilised prior to commencement of the Proposed Development.
Waste Strategy	The Proposed Development will include provisions for the disposal of waste, which will include facilities for the separation of waste for recycling purposes. This will be in accordance with RBC policy. A waste strategy (to be secured by planning condition) will be developed for the Site, which will set out the principles and strategy for the management of waste and recycling.
Earthworks and Foundations	All earthworks and foundation design will be in accordance with relevant industry guidance, including but not limited to CIRIA Report C572: Treated ground engineering properties and performance ¹⁶¹ , British Research Establishment document FB75: Building on Fill - Geotechnical Aspects ¹⁶² and British Standard 6031:2009: Code of Practice for Earthworks ¹⁶³ .
Building Safety	All buildings will be designed with appropriate fire prevention / control measures (e.g. fire doors, extinguishers, etc.) and all external facades and materials will meet the necessary fire resistance standards set out within relevant legislation (e.g. the Building Regulations). Fire management measures, including smoke detectors etc.) will also be installed within the Proposed Development.
Overheating Strategy	Prior to construction, homes will undergo an overheating assessment in line with the requirements of Building Regulations Part O¹⁶⁴ to assess and reduce the risk of summer overheating, taking into account future climate scenarios. The ventilation strategy for individual buildings will consider measures to promote high levels of energy efficiency and good indoor air quality and will be confirmed prior to construction.

¹⁶¹ CIRIA (2002). Report C572: Treated ground engineering properties and performance.

¹⁶² British Research Establishment (2015). FB75: Building on Fill - Geotechnical Aspects. 3rd Edition.

¹⁶³ British Standard (2009). 6031:2009: Code of Practice for Earthworks.

¹⁶⁴ MCHLG (2022), Building Regulations Part O. Available at: <https://www.gov.uk/government/publications/overheating-approved-document-o>

Mitigation Measure	Description / Details of Measure
	The Proposed Development will consider a number of mitigation measures to protect building materials, site structures and site infrastructure from heat related damage such as: • White or high-albedo materials; • High thermal mass materials; • Green roofs and walls; • External shading devices (shutters, brise soleil etc); • Using heavy-duty tarpaulins, UV-resistant coverings, and scaffold wraps to protect materials and exposed work areas; • Using galvanised steel or applying acrylic/polyurethane coatings to prevent heat-induced damage and rust; and • Green and blue infrastructure to reduce the urban heat island effect. Details of materials and measures to ensure resilience to climate change will be set out as part of Reserved Matter application(s).
Climate Adaptation	Design of electrical infrastructure will consider climate change effects, including increasing temperatures, and incorporating adaptation measures as outlined in guidance such as the National Grid Climate Change Adaptation report (Round 4 (ARP))¹⁶⁵. Site infrastructure such as sub-stations will be designed in line with relevant climate change guidance to protect site infrastructure from flooding. Potential guidance, where relevant, includes the Energy Networks Associated (ENA) core technical guidance Engineering Technical Report ETR 138, Resilience to Flooding of Grid and Primary Substations¹⁶⁶. Site infrastructure including roads and pavements will be designed in line with relevant climate change guidance, including the Design Manual for Roads and Bridges (DMRB)¹⁶⁷, which includes technical guidance document LA 114, Climate; GG 101 / 103, which requires the consideration of climate change vulnerability, and CD 226, Design for new pavement construction, which requires resilience to future climate conditions, such as increased risk and severity of flooding, drought, heatwaves, intense rainfall and extreme weather events.

¹⁶⁵ National Grid (2024). Climate Change Adaptation Report Round 4 (ARP4). Available at: [687761](#)

¹⁶⁶ ENA (2018). Engineering Technical Report 138, Resilience to Flooding of Grid and Primary Substations. Available at: https://www.ena-eng.org/ena-docs/DOC3XTRACT/ENA_ET_138_Extract_180902050400.pdf

¹⁶⁷ DMRB (2026). Design Manual for Roads and Bridges (Document selection page). Available at: [Standards For Highways](#)

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