

12.0 POPULATION AND HUMAN HEALTH

Introduction

- 12.1 This chapter of the ES assesses the likely significant effects of the Development on the environment in respect of issues related to population and human health; particularly the impact on housing, employment, household expenditure, primary healthcare (GP provision), wider human health, education provision (early years, primary and secondary schools) and open space.
- 12.2 The chapter has been prepared by Barton Wilmore now Stantec's Development Economics Team who have an established track record in both Socio-Economic and Population and Human Health ES chapters (refer to Appendix 1.2: Statement of Expertise).
- 12.3 This chapter should be read in conjunction with the following figures, which have been used to inform the assessment:
- Figure 12.1: Study Area;
 - Figure 12.2: Childcare and Early Years Provision;
 - Figure 12.3: Primary School Provision;
 - Figure 12.4: Secondary School Provision;
 - Figure 12.5: GP Provision; and
 - Figure 12.6: Open Space Provision.

Policy Context

- 12.4 A summary of the national and local planning policy relevant to this assessment is provided below.

National Planning Policy Frameworkⁱ

- 12.5 At the centre of the National Planning Policy Framework (NPPF) is a presumption in favour of sustainable development, 'with three overarching objectives: economic, social and environmental.
- 12.6 The social objective supports '*strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services*

and open spaces that reflect current and future needs and support communities' health, social and cultural well-being' (paragraph 8).

- 12.7 The economic objective is *'to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure'* (paragraph 8).
- 12.8 Significant adverse impacts on these objectives should be avoided and wherever possible, alternative options which reduce or eliminate such impacts should be pursued. Where significant adverse impacts are unavoidable, suitable mitigation measures should be proposed or compensatory measures should be considered (paragraph 32).
- 12.9 The NPPF requires planning authorities to work proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area (paragraph 38). Significant weight should be placed on *'the need to support economic growth and productivity, taking into account both local business need and wider opportunities for development'* (paragraph 81).
- 12.10 Planning policies and decisions should aim to achieve healthy, inclusive and safe places that promote social interaction; are safe and accessible; and enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example, through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling (paragraph 92).
- 12.11 To provide the social, recreational and cultural facilities and services the community needs, planning policies and decisions should *'ensure an integrated approach to considering the location of housing, economic uses and community facilities and services'* (paragraph 93).
- 12.12 In respect of education, the NPPF states that *'it is important that a sufficient choice of school places is available to meet the needs of existing and new communities, with local authorities taking a proactive, positive and collaborative approach to meeting this requirement'* through giving *'great weight to the need to create, expand or alter schools through the preparation of plans and decisions on applications'*; and working *'with school promoters, delivery partners and statutory bodies to identify and resolve key planning issues before applications are submitted'* (paragraph 94).

- 12.13 The NPPF is supported by Planning Practice Guidance ('PPG')ⁱⁱ on a range of different topics. Guidance is provided in respect of Environmental Impact Assessments, but socio-economic considerations are not specifically addressed.

Local Planning Policy

- 12.14 The Site is located within the administrative area of Rochdale Borough Council (RBC). RBC's Core Strategy (adopted October 2016) sets out the spatial strategy for future developments in Rochdale Borough up to 2028. In addition, the RBC area is incorporated within the 'Places for Everyone – Joint Development Plan Document' prepared by The Greater Manchester Combined Authority. Places for Everyone sets out the long-term strategy in planning for new jobs, homes and sustainable growth across Greater Manchester up to 2037.

*Rochdale Adopted Core Strategy*ⁱⁱⁱ

- 12.15 The Core Strategy is the lead document for RBC's local plan. It provides an overview of RBC's objectives for the whole Borough.
- 12.16 Policies of relevance to the assessment of population and human health comprise:
- **Policy SP2: The Spatial Strategy for the Borough**, which seeks to deliver 460 new homes a year between 2012 – 2028, developing up to 210 hectares of employment land.
 - **Policy C4: Providing Affordable Homes**, will seek the delivery of affordable homes on all developments of 15 dwellings or more, equivalent to 7.5% of the overall scheme.
 - **Policy C6: Improving Health and Well Being**, which seeks to improve the health and well being of residents through, among other actions, 'supporting and promoting accessible new health facilities and services in town centres and local centres'. Under policy C6 RBC will, where appropriate, seek a Health Impact Assessment for major planning applications and consider the use of section 106 agreements or Community Infrastructure Levy (CIL) to deliver measures to improve the health impacts of developments.
 - **Policy C7: Delivering Educational Facilities**, states that RBC will provide educational facilities in appropriate and accessible locations, seeking developer contributions for the provision of educational facilities (including new school places) and employment and skills training. Where housing growth will create a need for new school places, RBC will negotiate financial contributions, as well as fund new facilities from existing programmes.
 - **Policy C8: Improving Community, Sport, Leisure and Cultural Facilities**, seeks to support and promote the provision of better community, sport, leisure and cultural facilities

that are of a type and scale appropriate to the size of the settlement, are accessible and support the borough's objectives.

- **Policy G6: Enhancing Green Infrastructure**, seeks to protect, improve and create green infrastructure to help deliver strategic sustainable developments that meets local needs.

Provision of Recreational Open Space in New Housing Supplementary Planning Document (SPD)^{iv}

- 12.17 The RBC Provision of Recreational Open Space in New Housing SPD sets out RBC's requirements in respect of open/play space that developments will be expected to provide. The SPD defines recreational open space as comprising of 'local open space' and 'outdoor sports provision' and makes an important distinction between the two. The SPD reports the Council's standard of 2.1 hectares of recreational open space per 1,000 population, comprising of 1 hectare per 1,000 population for local open space and 1.1 hectares for outdoor sports provision.
- 12.18 The SPD references Fields in Trust (FIT)^v when determining standards for RBC. The FIT standards are summarised in Table 12.1 and the accessibility standards have been used within the assessment to compile the open/play space baseline.

Table 12.1: FIT Accessibility and Quantity Standards

Type	Accessibility standard (metres)	Quantity standard (hectares per 1,000 population)
Local Equipped Areas for Play ('LEAP')	400	0.25
Neighbourhood Equipped Areas for Play ('NEAP')	1,000	0.25
Playing pitches	1,200	1.20
Other outdoor sports provision	700	0.30
Parks and Gardens	710	0.80
Amenity Green Space	480	0.60
Natural and Semi-Natural	720	1.80

Places for Everyone – Joint Development Plan (JDP) Document^{vi}

- 12.19 Places for Everyone (August 2021) was submitted for public examination in February 2022 and is therefore not currently adopted. However, the JDP provides an overview of the growth strategy for the nine Greater Manchester authorities collectively and individually.
- 12.20 Emerging policies of relevance to the assessment of population and human health comprise:

- **Policy JP-H 1: Scale, Distribution and Phasing of New Housing Development**, which seeks to deliver a minimum of 164,880 net additional dwellings across Greater Manchester over the period 2021 to 2037, which is equivalent to an average of 10,305 per annum. The RBC area is required to provide 9,858 of the total 164,880 (c6%) of the total homes, which is equivalent to an average of 622 net additional homes per annum, which is higher than the RBC Adopted Core Strategy Requirement;
- **Policy JP-H 2: Affordability of New Housing**, aims to deliver 50,000 additional affordable homes across Greater Manchester over the period 2021 to 2037 with at least 60% being for social rent or affordable rent;
- **Policy JP-G 2: Green Infrastructure Network**, seeks to protect, manage and enhance Green Infrastructure to support wider public health benefits, including promotion of active travel, food growing and recreational opportunities;
- **Policy JP-G 6: Urban Green Space**, seeks to work with developers and other stakeholders to deliver new, high quality urban green spaces which meet accessibility standards;
- **Policy JP-P 1: Sustainable Places**, seeks to create socially inclusive places that are well connected and served by local shops, services and amenities including education and health facilities and that incorporate high quality green infrastructure to support healthy lifestyles;
- **Policy JP-P 5: Education, Skills and Knowledge**, will look to support significant enhancements in education, skills and knowledge to benefit existing and new residents by enabling the delivery of new and improved facilities for all ages, such as early years, schools and further education and adult training to ensure the local workforce is able to benefit from new employment opportunities;
- **Policy JP-P 6: Health**, seeks to support improvements in health facilities, responding to the changing needs of both existing and new residents and requires new developments to maximise its positive contribution to health and wellbeing, avoiding any potential negative impacts of new development;
- **Policy JP-P 7: Sport and Recreation**, will ensure that a network of high quality and accessible sports and recreation facilities will be protected and enhanced to support greater levels of activity for all ages; and
- **Policy JP-J 1: Supporting Long-Term Economic Growth**, states an emphasis to provide high-quality, sustainable living environments that will help to attract and retain skilled workers.

Assessment Methodology

Consultation

- 12.21 This chapter has been prepared at the request of RBC in their Scoping Opinion (Appendix 2.2 of the ES). RBC's Scoping Opinion stated that the Development would place additional pressure on educational establishments, health services and green infrastructure, including play spaces and sports facilities, and requested that the assessment should consider the likely significant effects of the Development on such receptors. The scope of this assessment has been prepared accordingly.
- 12.22 RBC's Scoping Opinion also requested that the chapter should consider existing walking, cycling and public transport routes. These factors have been considered in Chapter 9: Transport of the ES. Furthermore, RBC's Scoping Opinion also stated that given the Site's close proximity to the motorway network, there is the potential for cumulative effects from air pollution caused by increased traffic generation. This has been addressed in the cumulative effects section of Chapter 10: Air Quality.

Technical Scope of the Assessment

- 12.23 This assessment has been undertaken in accordance with the Development parameters set out in Chapter 3: Site and Development Description of the ES. The following likely significant population and human health effects from the Development have been assessed:

Construction:

- Employment generation (direct and indirect); and
- Wider human health.

Completed Development:

- Delivery of new housing;
- Employment creation (net additional);
- Resident employment creation (for residents of the RBC area);
- Household expenditure;
- Education (early years, primary, secondary phase);
- Primary healthcare (General Practitioner (GP) provision);
- Wider Human Health; and
- Open/play space.

12.24 Construction phase effects on housing, expenditure, education, healthcare and open/play space have been scoped out of the assessment, as it is expected that the construction workforce and their families would not move to the area and therefore not create any additional demand. There would either be no effect during the construction phase on these receptors or effects would be so limited as to be insignificant.

12.25 The assessment comprises the following stages:

- Identification of current and future baseline conditions with respect to the above topics using information and statistics available in the public domain;
- Assessment of the likely significant effects of the Development on population and human health by reviewing the baseline conditions and determining the change attributable to the Development using published formulae and guidance to assess effects;
- Recommendation of mitigation or enhancement measures, if necessary;
- Assessment of residual effects assuming implementation of the mitigation/ enhancement measures; and
- Assessment of the cumulative schemes described within Chapter 2 EIA Methodology of the ES for the potential to have likely significant cumulative effects on population and human health when combined with the Development.

Spatial Scope of the Assessment

12.26 Chapter 3: Site and Development Description of the ES details the Site context. The Site is situated in the electoral ward of Castleton. However, the local Study Area has been defined collectively as the electoral wards of both Castleton and Balderstone & Kirkholt (see Figure 12.1) as these two wards contain the existing housing estates closest to the Development (and therefore most likely to be impacted upon by the Development).

12.27 Whilst the area of impact for community infrastructure receptors (education, primary healthcare and open/play space) will be localised to the Site, the area of impact for housing and employment receptors will be wider. Table 12.2 summarises the spatial area used within this assessment for each receptor.

Table 12.2: Receptor Spatial Assessment Areas

Receptor	Spatial Area	Justification
Housing	Borough level	The residential homes provided by the Development will contribute towards the Local Plan housing requirement for the RBC area.
Household Expenditure	Borough Level	Household expenditure generated by the new households is expected to impact predominantly on the RBC area.
Early Years	Local level	People can register with any childcare or early years provider. However, to limit this assessment, provision within the Study Area has

Receptor	Spatial Area	Justification
		been considered as the area most likely to be impacted upon by the Development, given they are the closest early years education facilities to the Site.
Primary Education	Local level	The Development is located within the primary school planning area of Rochdale Southwest Primary Planning Area. All primary schools located within this planning area have been selected for assessment as all have the potential to be impacted upon by the Development's new residential population, given they are the closest primary schools to the Site.
Secondary Education	Local level	There are two secondary schools situated equal distance from the Site that fall within two separate planning areas. All schools within these two planning areas (Rochdale Township Secondary and Middleton Township Secondary) have been included within the assessment as they have the greatest potential to be impacted upon by the Development given they are the closest secondary schools to the Site.
GP Provision	Local level	Since 2015, people can register with any GP of their choice; however, to limit this assessment, provision within the Study Area has been considered as the area most likely to be impacted upon by the Development, given they are the closest GP facilities to the Site.
Wider Human Health	Local Level	The population most affected by the Development comprises residents closest to the Site.
Open/Play Space	Local Level	The open spaces included within the assessment are limited to those located within 1.2km of the Development. This is in line with accessibility standards set by Field in Trust (FIT) (refer to Table 12.1).
Employment	Borough Level	Both the construction and operational phases of the Development will provide employment opportunities across the RBC area.

- 12.28 Baseline conditions for the Study Area (local level) are compared to the RBC area (borough Level), Greater Manchester (regional level) and England (national level).

Topic Specific Methodologies

Population

- 12.29 The baseline population is established using data from the 2021 Census^{vii}. The Office for National Statistics ('ONS') 2018-based Sub National Population Projections ('SNPP')^{viii} have been used to provide a future population for the year in which the Development is proposed to be fully complete and operational (2038). The SNPP are only published for local authority areas, regions and England and therefore the SNPP are not available for the Study Area.
- 12.30 The number of future residents anticipated to live in the Development has been calculated by multiplying the number of residential units proposed by the Development by the average household size for the RBC area according to the 2021 Census^{ix}.

Housing

- 12.31 Existing baseline housing conditions in respect of the number, type, tenure and overcrowding of homes have been informed by the 2021 Census^x. The number of households on the housing

waiting list in 2022 has been sourced from the Department for Levelling Up, Housing and Communities (DLUHC)^{xi}.

- 12.32 The impact of the Development on the local housing stock is a quantitative assessment based on the contribution that the Development will make to the identified housing requirements for the RBC area based on annual housing targets detailed in the RBC Core Strategy.

Household Expenditure

- 12.33 Baseline conditions in relation to household expenditure have been sourced from Experian, Retail Planner Data^{xii}. Expenditure data is not available for the Study Area and therefore data for the RBC area has been used.
- 12.34 A quantitative assessment of likely significant effects has been made on the potential for new households living in the Development to increase spending on goods and services. This has been assessed by multiplying the Development's number of residential units by the average annual household expenditure on convenience, comparison and leisure goods and services for the RBC area.

Early Years Education

- 12.35 All registered early years/childcare providers in the Study Area that provide care in non-domestic settings, have been sourced from Ofsted^{xiii}, including details of the number of places provided. The number of available places is not recorded via Ofsted and therefore the current capacity position of individual facilities is not known. Those facilities included for assessment are shown on Figure 12.2.
- 12.36 To assess the number of early years places required by the Development's future population, the RBC's Pupil Yield Multipliers (PYMs) published within RBC's School Organisation Plan^{xiv} have been used. The RBC School Organisation Plan reports an average yield of three pupils per year group for every 100 houses. On the basis that early years' education represents those aged 0 to 4 years (5 individual age groups), this means that for every 100 houses there will be a need for an extra 15 early years places.
- 12.37 The assessment is quantitatively based on the number of early year places generated by the Development versus the number of places provided within the existing early years provision.

Primary and Secondary Education

- 12.38 All primary schools located within the Rochdale South West Primary Planning Area (shown on Figure 12.3) and all secondary schools located within the Rochdale Township Secondary and Middleton Township Secondary Planning Area (shown on Figure 12.4) have been included for assessment. Table 12.2 provides the rationale for the use of this selection.
- 12.39 Independent, special, and selective schools have been excluded. This represents a 'worst-case scenario' for assessment, as it assumes that all pupils living at the Development will enter mainstream non-selective/fee-paying schools.
- 12.40 Baseline conditions in respect of the existing numbers of pupils on each individual school roll, along with current school capacities, have been informed by the Department for Education ('DfE') School Capacity: Academic Year 2021/22^{xv}. This data has been used to determine baseline surplus or deficit school places.
- 12.41 Future baseline conditions in respect of primary and secondary school capacities have been informed by the DfE, School Place Planning Data, specifically the estimated number of primary places needed for years 2022/23 to 2026/27 (the furthest year for which primary level forecasts are available) and secondary places needed for years 2022/23 to 2028/2029 (the furthest year for which secondary level forecasts are available)^{xvi}. Capacity forecasts are only published for school planning areas and are not available for individual schools.
- 12.42 The number of primary and secondary school places required by the Development's future resident population has been calculated using PYMs published within RBC's School Organisation Plan^{xvii}. As stated for early years education, RBC's School Organisation Plan reports an average yield of three pupils per year group for every 100 houses. Primary education is represented by seven year-groups (Year R through to Year 6) and secondary education by five year-groups (Year 7 to Year 11). On this basis, RBC's PYM's suggest 21 primary and 15 secondary aged children for every 100 houses. Table 12.3 summarises the education PYMs used within this assessment.

Table 12.3: RBC Pupil Yield Multipliers

Phase of education	Places generated per 100 homes
Early Years	15
Primary age pupils	21
Secondary age pupils	15

Source: RBC School Organisation Plan 2010 - 2014

- 12.43 The assessment is quantitatively based on the number of primary/secondary pupils generated by the Development versus the level of surplus or deficit forecast primary/secondary school places.
- 12.44 For the purpose of this assessment, secondary education is defined as school years 7 to 11 (children aged 11 to 16 years).

GP Provision

- 12.45 All GP provision located within the Study Area has been selected for this assessment (shown on Figure 12.5). Baseline conditions for GP provision are assessed through reference to the National Health Service (NHS) GP Workforce Statistics^{xviii}, which provide total patient list size for individual GP Practices and the number of full time equivalent ('FTE') GPs at each practice. It should be noted that the NHS only publishes GP and patient data at a practice level. Data is not published for individual branches associated with a practice.
- 12.46 To determine whether existing GP provision is under or over-capacity, GP to patient ratios of the selected practices have been compared to the Healthy Urban Development Unit ('HUDU') standard of 1 GP for every 1,800 people.
- 12.47 The assessment of likely significant effects has been quantitatively based on the number of future residents anticipated to live in the Development versus the number of surplus or deficit patient places within the selected GP provision. To assess the worst-case, it has been assumed that all residents of the Development will be new to the area and therefore not already registered with a local GP.

Wider Human Health

- 12.48 Human health is a multi-dimensional topic and covers both physical and mental wellbeing. This is reflected in the World Health Organisation's definition of health as, "*a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity*". The assessment of wider human health effects from the Development is qualitative, drawing on the findings of the following chapters from the ES:
- Chapter 6: Landscape and Visual Effects;
 - Chapter 9: Transport;
 - Chapter 10: Air Quality;
 - Chapter 11: Noise and Vibration; and

- Chapter 13: Climate Change.

12.49 Baseline conditions regarding the local human health environment have been informed utilising the requirements from Public Health England's (PHE) latest report for RBC^{xxix} and from the English Indices of Deprivation^{xx}.

Open/Play Space

12.50 Baseline conditions in respect of open/play space have been informed through reference to Ordnance Survey ('OS') Open Greenspaces^{xxi}. Consideration has been given to RBC's accessibility standards (summarised in Table 12.1).

12.51 A qualitative assessment has been made based on the proximity of the Site to existing open space and the quantum and accessibility of open space proposed by the Development. Open space requirements are based on RBC's quantity standards detailed within the 'Policy Context' section of this chapter.

Employment

12.52 Existing baseline employment conditions in relation to economic activity have been informed by the 2021 Census^{xxii}. In addition, more recent unemployment data has been sourced from the ONS Claimant Count^{xxiii} for the month of February 2023, which is the latest available at the time of writing.

12.53 Baseline employment conditions in relation to the number of jobs in the RBC area (workplace-based) have been sourced from the ONS' Jobs Density data set for the year 2021^{xxiv}. Jobs Density data provides a measure of total jobs and therefore includes a count of all employees, self-employed, government-supported trainees and HM Forces. Jobs Density data is not available for the Study Area and therefore only data for the RBC area, Greater Manchester and England has been presented. Data from the ONS' Business Register and Employment Survey ('BRES') 2021^{xxv} provides a count of employees working in the Study Area, excluding self-employment jobs and government-supported trainees and HM Forces. Nonetheless, BRES data is presented to illustrate the key industrial sectors in the Study Area, RBC area, Greater Manchester and England.

12.54 Baseline employment conditions in relation to commuting patterns have been informed by the ONS, 2011 Census^{xxvi}. Whilst the 2021 Census was undertaken in March 2021, the travel to

work statistics are not yet available and therefore data from the 2011 Census remains the most up to date census dataset available for this indicator.

- 12.55 An assessment of the likely significant effects of the Development on employment has been quantitatively made based on the number of net additional full-time equivalent (FTE) jobs created in the RBC area and net employment created for residents of the RBC area by the Development.
- 12.56 The number of direct jobs generated during the construction phase has been assessed based on the Construction Industry Training Board ('CITB'), Labour Forecasting Tool ('LFT'). The LFT has been populated with an indicative construction cost (estimated using build cost data (£ per sqm by type of floorspace)) from Cost-modelling^{xxvii} and run over a 172-month construction programme from 1 March 2024 to 30 June 2038 as detailed in Chapter 5 Construction Methodology & Phasing of the ES.
- 12.57 The number of on-site jobs supported by the Development during the operational phase has been calculated following guidance provided by the Homes & Communities Agency (HCA), Employment Densities Guide, 3rd Edition, November 2015^{xxviii} and applied to the indicative floorspace assumptions by Use Class.
- 12.58 The Development incorporates the delivery of a local centre with specific uses to be determined at Reserved Matters stage. However, it is envisaged that the local centre will comprise of convenience retail and/or café/restaurant each under 3,000 square feet (sqft) (c. 280 square metres (sqm)) comprising a total floorspace of 18,500 sqft (c. 1,720 sqm). Employment arising from the Development's local centre has been calculated using the HCA employment density for Retail (pre-September 2020 (when the Use Classes Order was amended) Use Class A1) and Restaurants/Cafes (pre-September 2020) Use Class A3). The HCA Density Guide provides a range of densities for A1 and A3 uses (both 15 to 20 sqm per FTE job) depending on the type of store. The lowest published density of 20 sqm Net Internal Area (NIA) per FTE job, has been used to calculate employment from the Development's proposed local centre which represents a reasonable, worst-case employment scenario.
- 12.59 The Employment Densities Guide requires retail use class floorspaces by NIA, however the floorspace assumptions have been provided by Gross External Area (GEA). Within this assessment, GEA figures have first been converted to Gross Internal Area (GIA) by assuming 95% of the GEA area. NIA figures have been calculated by assuming 80% of the GIA area, following conversion guidance provided in the HCA, Employment Densities Guide^{xxix}.
- 12.60 Guidance from the HCA, Additionality Guide (2014)^{xxx} ('Additionality Guide') and more recently, HM Treasury's Green Book (2022)^{xxxi} ('Green Book'), establishes that direct jobs generated by

developments would most likely be subject to a degree of 'displacement' (the level of employment likely to be lost, moved or adversely affected by the employment created as a result of the Development); 'leakage' (referring to the number of jobs likely to be taken up by people outside the RBC area), and; 'multiplier effects' (the additional economic benefit that will be derived as a direct result of the income earned by the new employment as an indirect result of the supply chain linkages).

- 12.61 These factors are collectively known as 'additionality' factors. They enable quantification of the RBC area employment effect, that is, the net increase in the number of employed RBC area residents attributable to the Development and the jobs it is expected to generate.
- 12.62 For this assessment, it is assumed that displacement will be zero because the Development is not considered to displace market activity from elsewhere in the RBC area. The jobs created by the Development will be additional jobs to the RBC area.
- 12.63 A leakage factor of 38% has been applied based on the proportion of jobs in the RBC area that are filled by residents who live outside of the RBC area according to the 2011 Census, as established in the baseline conditions for employment. As stated earlier, whilst the 2021 Census was undertaken in March 2021, the travel to work statistics are not yet available and therefore data from the 2011 Census remains the most up to date census dataset to inform the leakage factor.
- 12.64 The Green Book classifies employment sectors as either tradable (outputs delivered mainly outside the RBC area) and non-tradeable (outputs delivered mainly inside the RBC area). Employment multipliers are only applied to tradeable uses. The Development's proposed employment generating uses are non-tradeable and therefore, no employment multipliers are applied within this assessment.

Limitations and Assumptions

- 12.65 The assessment relies on secondary survey data published by the ONS. Each data source has methodological limitations related to data collection and surveys only represent the socio-economic context at a specific point in time.

Determining the Significance of Effects

- 12.66 There are no technical significance criteria relating to assessment of effects on population and human health, other than those that relate specifically to other technical areas (pollution, noise etc.). These have been dealt with in detail, in separate ES chapters, and if necessary, where

appropriate, summarised within this chapter. The evaluation of effects on population and human health is therefore undertaken using professional judgement, having regard to the existing baseline position.

- 12.67 The sensitivity of affected receptors has been evaluated on a scale of high, moderate and low, aligned with the methodology detailed within Chapter 2 EIA Methodology of the ES. Table 12.4 details the sensitivity criteria used for each receptor included within this assessment.

Table 12.4: Population and Human Health Receptor Sensitivity Descriptors

Sensitivity	Descriptor
High	Economic receptors = the receptor is of significant importance to the RBC economy. Social receptors = there is a currently no capacity in the community infrastructure.
Moderate	Economic receptors = the receptor is of some importance to the RBC economy. Social receptors = there is a currently limited capacity in the community infrastructure.
Low	Economic receptors = the receptor is of low or no importance to the RBC economy. Social receptors = there is a currently available capacity in the community infrastructure.

- 12.68 The magnitude of impact to a receptor has been determined by considering the estimated deviation from baseline conditions both before, and if required, after mitigation. The scale used for determining the magnitude of an impact is detailed in Table 12.5.

Table 12.5: Magnitude of Impact Descriptors

Magnitude	Descriptor
Major	The Development would cause a large change to the existing socio-economic condition (providing a 10% increase or greater the current baseline).
Moderate	The Development would cause a moderate change to the existing socio-economic condition (providing between a 5 to 9.9% increase or greater the current baseline).
Minor	The Development would cause a small change to the existing socio-economic condition (providing between a 0.1% and 4.9% increase or greater the current baseline).
Negligible	The Development would cause no discernible change to the existing socio-economic condition (providing less than 0.1% change to the current baseline).

- 12.69 Those effects which are considered to have a moderate or major beneficial or adverse effect have been considered as significant and where effects have been established as significant adverse, appropriate mitigation measures have been identified to inform the assessment of residual effects.

Baseline Conditions

Population

- 12.70 The ONS, 2021 Census reports that the Study Area has a population of 21,927 people, accounting for 10% of the RBC area's total population (223,775 people). Since 2011, the Study Area's population has increased by 7% (+1,346 people) which is in line with the population

increase of the RBC area (+6%) and England (+7%). However, the population of Greater Manchester grew at a faster pace (+10%) over the 10-year period.

- 12.71 The Study Area has a similar age profile to the RBC area, but an older population profile compared to Greater Manchester and a younger population profile compared to the national average as demonstrated in Table 12.6.

Table 12.6: Age Profile by Broad Age Group (2021)

	Study Area	RBC Area	Greater Manchester	England
Aged 0 to 15	23%	22%	21%	19%
Aged 16 - 64	61%	62%	70%	63%
Aged 65+	16%	16%	9%	18%
All Ages	100%	100%	100%	100%

Source: ONS, 2021 Census. All figures have been rounded and may not sum.

Housing

Accommodation Type

- 12.72 The 2021 Census recorded approximately 90,223 households in the RBC area, 9.9% of which (8,921) are within the Study Area.
- 12.73 Table 12.7 highlights that accommodation within the Study Area predominantly takes the form of semi-detached houses (45%). Semi-detached properties are also the most common accommodation type in the RBC area (36%), Greater Manchester (32%) and England (31%). Flats account for only 11% of accommodation in both the Study Area and the RBC area, which is considerably lower than both the regional (28%) and national (17%) averages. The Study Area also has a comparable proportion of detached houses to the RBC area (15% compared to 17%). However, again, the proportion of detached houses in the Study Area is lower than England (23%) but considerably higher than the average for Greater Manchester (5%).

Table 12.7: Household Accommodation Type 2021

Type	Study Area	RBC Area	Greater Manchester	England
Detached	15%	17%	5%	23%
Semi-detached	45%	36%	32%	31%
Terraced	27%	34%	28%	23%
Flats	11%	11%	28%	17%
Other	2%	2%	7%	6%

Source: ONS, 2021 Census. All figures have been rounded and may not sum.

Tenure

- 12.74 Table 12.8 illustrates that the majority of accommodation in the Study Area is owner occupied (56%) which is slightly lower than the proportion of owner-occupied properties in the RBC area (60%) and England (61%) but considerably higher than the regional average (37%). A further 26% of properties within the Study Area are socially rented; higher than the average for the RBC area (21%) and England (17%) but marginally lower than the average for Greater Manchester (29%). 17% of properties in the Study Area are privately rented properties; lower than the proportion of privately rented properties in the RBC area (18%), England (20%) and Greater Manchester (32%).

Table 12.8: Household Tenure (2021)

	Study Area	RBC Area	Greater Manchester	England
Owned	56%	60%	37%	61%
Shared Ownership	0%	0%	1%	1%
Social Rent	26%	21%	29%	17%
Private Rent	17%	18%	32%	20%
Living Rent Free	<1%	<1%	<1%	<1%

Source: ONS, 2021 Census. All figures have been rounded and may not sum.

Overcrowding

- 12.75 According to the 2021 Census, 8% of homes in the Study Area are overcrowded, defined as there being fewer rooms than required for the size of the household. The proportion of overcrowded households in the Study Area is the same as the average for the RBC area, lower than that of Greater Manchester (10%) and higher than that of England (6%).

Average Household Size

- 12.76 According to the ONS, 2021 Census, the average household size in the RBC area is currently 2.45 persons per household, which is larger than the national average (2.37 persons per household).

Households on the RBC Waiting List

- 12.77 As of 31st March 2022, there were 7,801 households on RBC's housing waiting list for social housing, a decrease of 67 households (-1%) from 2021. In comparison, the average increase in the number of households on the housing waiting list across England was 2%.

Household Expenditure

- 12.78 Annual household expenditure data from Experian is presented in Table 12.9 for the RBC area, Greater Manchester and England.

Table 12.9: Average Household Expenditure (2021) Per Annum

	RBC	Greater Manchester	England
Comparison Spend	£8,054	£7,375	£8,895
Convenience Spend	£6,000	£5,662	£6,332
Leisure Spend	£6,049	£6,507	£8,245
Total	£20,103	£19,545	£23,472

Source: Experian

- 12.79 On the basis that there are 8,921 households in the Study Area and 90,223 households in the RBC area (as identified in the housing baseline), this would suggest current household expenditure of £1,813.7m by residents in the RBC area, of which £179.3m (10%) is expenditure created by households of the Study Area.

Education

Early Years Education

- 12.80 A total of eight registered, non-domestic early years facilities are located within the Study Area. These eight facilities are detailed in Table 12.10, along with the number of places provided by the individual facility. Figure 12.2 identifies the location of these facilities in relation to the Site.

Table 12.10: Existing Early Years Facilities within the Study Area

Location on Figure 12.2	Name	Postcode	Places Provided
1	Georgie Porgie's Network Nurseries	OL11 2RL	42
2	Castleton Playgroup & Afterschool Club	OL11 2QD	24
3	Holyrood Day Nursery Castleton	OL11 3BT	80
4	Small World Nurseries Ltd	OL11 3AD	76
5	Sandbrook Childrens Centre Nursery	OL11 2LR	60
6	Sunflower Nurseries Limited	OL11 2HD	63
7	Laroche Day Care Nursery	OL11 2HB	63
8	Mini Mees Child Care	OL11 1AZ	30
Total			438

Source: Ofsted

- 12.81 There are a total of 438 places provided at the eight existing early years facilities located within the Study Area, of which two facilities, Georgie Porgie's Network Nurseries and Castleton Playgroup & Afterschool Club, are within approximately 750m from the Site, offering 66 places collectively.

Primary Education

- 12.82 There are a total of seven primary schools located within the Rochdale Southwest Primary Planning Area. Table 12.11 details these schools along with the number of pupils on roll and current school capacity. Figure 12.3 identifies the location of these primary schools in relation to the Site.

Table 12.11: Existing Primary School Provision and Capacities in Rochdale South West Primary Planning Area

Location on Figure 12.3	Name	Pupils on Roll	Capacity (Places)	Surplus/deficit (pupils)
1	St John's VA Church of England Primary School, Thornham	98	105	7
2	St Gabriel's Roman Catholic Primary School, Rochdale	191	209	18
3	Castleton Primary School	304	420	116
4	St Edward's Church of England Primary School	363	364	1
5	Holy Family Roman Catholic Primary School, Rochdale	213	210	-3
6	Sandbrook Community Primary School	581	618	37
7	St Mary's Church of England Primary School, Balderstone	208	209	1
	Total Available Places (Surplus places only)	1958	2135	180

Source: DfE

- 12.83 Six of the seven primary schools within the Rochdale South West Primary Planning Area are operating with available capacity with a combined total of 180 unfilled places. 141 of the unfilled places are within the three primary schools located closest to the Site.
- 12.84 DfE School Place Planning data provides future baseline conditions in respect of primary school capacities. As stated in the 'Assessment Methodology' section of this chapter, future capacities are only available for school planning areas (not individual schools). The number of available primary school places in the Rochdale South West Primary Planning Area is forecast to decrease over the coming years. By 2026/27, there is forecast to be only 40 primary school places available within the Rochdale South West Primary Planning Area.

Secondary Education

- 12.85 There are nine secondary schools located within the Middleton Township Secondary and Rochdale Township Secondary Planning Areas combined, with four of the schools located within the Middleton Township Secondary Planning Area and five within the Rochdale Township Secondary Planning Area. Table 12.12 details the number of pupils on roll and current capacity

figures for each school, excluding any Sixth Form provision. Figure 12.4 identifies the location of these secondary schools in relation to the Site.

Table 12.12: Existing Secondary School Provision and Capacities (School Years 7 to 11)

Location on Figure 12.4	Name	Planning Area	Pupils on Roll	Capacity	Surplus/Deficit (pupils)
1	Edgar Wood Academy*	Middleton Township Secondary	108	900	n/a
2	Cardinal Langley Roman Catholic High School	Middleton Township Secondary	1058	1050	-8
3	St Cuthbert's RC High School	Rochdale Township Secondary	1126	1200	74
4	St Anne's Church of England Academy	Middleton Township Secondary	789	900	111
5	Matthew Moss High School	Rochdale Township Secondary	1116	1200	84
6	Kingsway Park High School	Rochdale Township Secondary	1336	1350	14
7	Middleton Technology School	Middleton Township Secondary	1349	1350	1
8	Oulder Hill Leadership Academy	Rochdale Township Secondary	1414	1500	86
9	Falinge Park High School	Rochdale Township Secondary	1353	1350	-3
	Middleton Township Secondary (surplus places only)				112
	Rochdale Township Secondary (surplus places only)				258
	Total Available Places (surplus places only)				370

*Edgar Wood has been excluded from the total surplus figure because it has a phased opening

Source: DfE

- 12.86 Across the two Secondary Planning Areas combined there are a total of 370 unfilled places with 112 of the places available within secondary schools located in Middleton Township Secondary Planning Area and 258 of the places available within secondary schools located in Rochdale Township Secondary Planning Area.
- 12.87 Two of the nine secondary schools are currently operating over-capacity –Cardinal Langley Roman Catholic High School, which is operating over-capacity by 8 places and Falinge Park High School, which is operating over-capacity by 3 places. The Edgar Wood Academy is a new school, for which data on pupil numbers is not yet available. The school is undergoing a phased opening whereby the school intakes a cohort of Year 7 students each year, reaching capacity once the first group of Year 7 students reach Year 11. Once at capacity, the school is expected to accommodate 900 students.
- 12.88 DfE forecasts indicate that the number of available secondary school places across the two Secondary Planning Areas is forecast to diminish in the coming years. By 2028/2029 (the furthest year for which secondary forecasts are published), the number of available secondary

places in the Middleton Township Secondary Planning Area is expected to be 86 and in the Rochdale Township Secondary Planning Area there is forecast to be an additional 87 secondary school places required. Collectively, across to the two Secondary Planning Areas combined there are expected to be no available secondary school places by 2028/29.

GP Provision

- 12.89 There are three GP practices operating from within the Study Area: The Kirkholt Medical Practice, Castleton Health Centre and Wellfield Health Centre. See Figure 12.5 for the location of the GP provision in relation to the Site.
- 12.90 Table 12.13 provides details of the selected GP provision, including the number of registered patients and the number of FTE GPs.

Table 12.13: Existing GP provision and capacities (February 2023)

Location on Figure 12.5	Surgery Name	GPs (FTE)	Registered Patients	Ratio (Patients to 1 GP)	Surplus Capacity (patients)
1	Kirkholt Medical Practice	0.5	3,989	7,978	-3,089
2	Castleton Health Centre	5.5	9,876	1,796	24
3	Wellfield Health Centre	6.3	13,206	2,090	-1,830
	Total Available places (surplus places only)				24

Source: NHS GP Workforce Statistics as of 28 February 2023.

Notes: 1. Capacity is calculated by subtracting the existing ratio (patients to 1 GP figure) from the HUDU average (1 GP for every 1,800 people) and multiplying this by the number of GPs at the relevant surgery.

- 12.91 Two of the three GP practices are operating over-capacity when assessed against the HUDU standard of 1 GP for every 1,800 patients. Only the Castleton Health Centre is operating with available capacity to accommodate an additional 24 patients.

Wider Human Health

- 12.92 A review of the Health Profile of various local health statistics for RBC, available from PHE has been undertaken as part of this assessment. Data has been obtained on various health features and compared with data for RBC, regionally (North West of England (NW)), and nationally (England). On the whole, the health of people in RBC is worse than the NW and national average.
- 12.93 The Site is located within two 'neighbourhoods': Lower Super Output Area (LSOA) Rochdale 017D and Rochdale 017C^{xxxii}. These are ranked 7,095 and 9,260 respectively out of 32,844 LSOA's in England, where 1 is the most deprived. This means that the population is amongst

the 30% most deprived neighbourhoods in England. For the health and disability domain, which measures the risk of premature death and the impairment of quality of life through poor mental or physical health, both neighbourhoods are in the 20% most deprived in England.

- 12.94 Local health statistics show that the life expectancy at birth (3-year range) for males is worse than the NW and national average, at 76.7 years compared to 77.9 for the NW and 79.4 years nationally. For females, the life expectancy at birth (3-year range) is also worse in RBC (80.9 years) when compared to the NW and England (81.7 years and 83.1 years respectively). The under 75 mortality rates from all causes is significantly worse in RBC (516.4 per 100,000) in comparison to the NW (431.4 per 100,000) and England (363.4 per 100,000). Furthermore, the under 75 mortality rates from cancer in RBC is 147.1 per 100,000, which is significantly worse than the NW and England (136 and 121.5 respectively).
- 12.95 The percentage of physically active adults is significantly lower in RBC (58.4%) compared to the NW (64.5%) and England (65.9%). Smoking prevalence amongst adults (18+ years) is also high in RBC at 15.6% when compared to the NW and England (14.4% and 13% respectively). The percentage of adults (18+ years) considered overweight or obese is also higher in RBC compared to the regional and national average, with 69.7% of adults in RBC overweight or obese compared to 65.9% regionally and 63.5% nationally.
- 12.96 In regard to child's health, hospital admissions for alcohol specific episode for under 18's is higher in the NW when compared to RBC (40.1 compared to 31.3 per 100,000), but the RBC rate is higher than the national average (29.3). The prevalence of obesity amongst children in Year 6 is 27.3% in RBC, which is higher than the NW (24.4%) and England (23.4%).

Open/Play Spaces

- 12.97 Reference to OS Open Greenspace identifies the provision of open/play space within proximity of the Site as illustrated on Figure 12.6. Table 12.14 provides detail of the existing open/play space, indicating the radial catchment from the Site alongside an indication of whether this is within the required distance for the type of open space based on FIT accessibility standards presented earlier in the chapter in Table 12.1.

Table 12.14: Existing Open/Play Space Provision within 1.2km of The Development

Location on Figure 12.6	Name	Type	Radial Catchment from Site	Within FIT accessibility standard*
1	St John's Church	Religious Grounds	400m	n/a
2	Thornham Cricket Ground	Playing Field	400m	Yes
3	Green off the A664	Allotments Or Community Growing Spaces	400m	Yes
4	Park 1	Playing Field	400m	Yes
4	Park 2	Bowling Green	400m	Yes
4	Park 3	Play Space	400m	Yes
5	Manchester Golf Course	Golf Course	400m	Yes
6	Greenspace off Rochdale Road	Allotments Or Community Growing Spaces	700m	No
7	St Martin's Church	Religious Grounds	700m	n/a
8	Royle Bowling and Billiards Club	Bowling Green	700m	Yes
9	Tandle Hill Park	Public Park or Garden	700m	Yes
10	Train with Honor	Playing Field	1km	Yes
11	Castlehawk Golf Club	Golf Course	1km	No
12	St Thomas's Church	Religious Grounds	1.2km	n/a
13	Kirkholt Bowling Club	Bowling Green	1.2km	No

Source: OS Open Greenspace

* Defined using FIT accessibility standards outlined in Table 12.1 of this chapter

12.98 Figure 12.6 and Table 12.14 demonstrate that there is range of formal open/play space provision within 1.2km of the Site that also meets the FIT accessibility standards. This includes one area of play space (Park 3, labelled as 4 on Figure 12.6) , five areas of outdoor sports provision (Thornham Cricket Ground, Park 1, Park 2, Manchester Golf Course, and Royle Bowling and Billiards Club) , two allotment sites and one public park and garden.

Employment

Economic Activity

12.99 The 2021 Census recorded that there were 101,069 residents in the RBC area aged 16 years and over who were classified as economically active (this includes all those people in employment or available to work, for example the unemployed), of which 9,808 reside in the Study Area. This is equivalent to 58% of the population aged 16 and over in both the Study Area and the RBC area, which is lower than the averages for Greater Manchester and England as a whole (62% and 59% respectively).

12.100 Of those economically active RBC residents, 94,459 were in employment which is equivalent to 54% of 16+ year olds; comparable to the Study Area (54%) and Greater Manchester (53%) but lower than the national average (57%).

12.101 The remaining 6,610 economically active RBC residents were unemployed. This represents 3.8% of all residents aged 16+ years; lower than the proportion of unemployed residents in the Study Area (4.0%) and Greater Manchester (5.7%) but higher than England (3.5%).

12.102 Whilst not a measure of total unemployment, Claimant Count data provides a count of the number of people claiming JSA, National Insurance ('NI') Credits or Universal Credit ('UC') principally for the reason of being unemployed and therefore provides an indication of people actively seeking employment. Table 12.15 presents the Claimant Count data for the Study Area, the RBC area, Greater Manchester and England as of February 2023.

Table 12.15: Claimant Count (as of February 2023)

	Study Area	RBC Area	Greater Manchester	England
Number of Claimants	910	8,295	22,830	1,331,680
Claimants as a proportion of those aged 16 - 64	6.7%	6.0%	5.9%	3.7%

Source: ONS

12.103 As of February 2023, 910 residents of the Study Area were claiming unemployment related benefits, which was equivalent to 6.7% of all residents aged 16 to 64 years. The Claimant Count in the Study Area (6.7%) is slightly higher than that of the RBC Area (6.0%) and Greater Manchester (5.9%), but almost double that of the national average (3.7%).

Employment (workplace-based)

12.104 The RBC area is a net exporter of labour, which means there are more residents aged 16 to 64 years than there are jobs. Jobs' density data from the ONS identifies that in 2021, there were 85,000 jobs in the RBC area (workplace-based). Expressed as the proportion of residents aged 16 to 64 years, the RBC area has a jobs' density of 0.61, which means there is under one job for every resident of working age. The jobs' density for the RBC area is lower than both Greater Manchester and England. Greater Manchester's jobs' density is 1.23, indicating that there are more jobs than residents of working age and therefore is a net importer of labour. England's jobs' density is 0.86.

12.105 Data from the ONS' 2021 BRES identifies that there are 8,230 jobs in the Study Area, which represents 11% of jobs in the RBC area (76,020 jobs). As stated in the 'Assessment Methodology' section of this chapter, the BRES data exclude those who are self-employed, government-supported trainees and HM Forces and therefore the number of jobs reported by BRES is lower than the number reported by the Jobs' density data. Nonetheless, the BRES data provides an indication of the industrial sector of employment. Table 12.16 provides a

breakdown of the industries people are working within in the Study Area, the RBC area, Greater Manchester and England.

Table 12.16: Workplace-based Employment by Industrial Structure (%)

	Study Area	RBC Area	Greater Manchester	England
Transport & storage	24%	8%	7%	5%
Manufacturing	16%	13%	3%	7%
Retail	8%	12%	7%	9%
Business administration & support services	8%	8%	11%	9%
Education	8%	10%	10%	9%
Health	7%	12%	12%	13%
Wholesale	7%	6%	3%	4%
Construction	5%	7%	3%	5%
Accommodation & food services	4%	6%	9%	7%
Motor trades	4%	2%	<1%	2%
Professional, scientific & technical	3%	4%	14%	9%
Arts, entertainment, recreation & other services	2%	3%	3%	4%
Property	1%	2%	3%	2%
Information & communication	1%	2%	5%	5%
Financial & insurance	<1%	1%	6%	4%
Mining, quarrying & utilities	<1%	1%	<1%	1%
Agriculture, forestry & fishing	<1%	<1%	<1%	1%
Public administration & defence	<1%	3%	6%	4%
Total	100%	100%	100%	100%

Source: ONS, 2021 BRES

All figures have been rounded and may not sum.

12.106 Table 12.16 shows that within the Study Area, there is a comparatively high proportion of employment in the Transport and Storage sector (24%) compared to the RBC area (8%), Greater Manchester (7%) and England (5%). The Study Area also has a high proportion of employment in the Manufacturing sector (16%) compared to the RBC area, Greater Manchester and England.

12.107 The BRES data identifies that there are 5,000 jobs in the construction sector in the RBC area, of which, 440 (9%) are within the Study Area.

12.108 Travel to work statistics from the 2011 Census reveal that 62% of jobs in the RBC area are taken up by residents who live in the RBC area. The remaining 38% of jobs in the RBC area are taken up by residents who live outside of the RBC area. Those local authority districts providing a large proportion of the RBC area's workforce are: Oldham (9%); Bury (6%); Rossendale (4%); and Manchester (4%).

Future Baseline

12.109 In the absence of the Development being implemented, the Site would remain in its existing condition.

12.110 It is anticipated that construction of the Development will commence in 2024 and be completed by 2038. The ONS' 2018-based SNPP indicate that by the year 2024, there could be 229,300 people living in the RBC area and that by the year 2038, this could increase to 245,200 people. An additional 3,700 people over the period 2024 to 2038 represents a 6.9% increase in population. In comparison, England's population is projected to increase by 5.1% over the same period.

12.111 By 2038, there is projected to be 148,600 people of working age living in the RBC area, a further 7,200 people than compared to the current baseline.

Likely Significant Effects

Construction Phase

Effects on Employment

12.112 The construction phase of the Development will generate jobs across all construction disciplines, from ground workers to construction management. Populating the LFT with the assumptions set out earlier in this chapter in the 'Assessment Methodology' section, it is anticipated that the Development will produce direct employment for an average of 139 (FTE) workers, over the construction period.

12.113 As detailed in the 'Assessment Methodology' section of this Chapter, the construction jobs created by the Development would be subject to additionality factors (displacement, leakage and multiplier effects). The additionality factors applied to direct construction employment of 139 FTE jobs (gross) is detailed in Table 12.17.

Table 12.17: Net Additional Construction Employment from the Development

	Jobs (FTE)
Gross Job Creation	139
Displaced jobs from elsewhere in RBC area (0%)	0
Net jobs in the RBC area (gross jobs minus displaced jobs)	139
Jobs filled by people who live outside of the RBC area (38%)	53

Jobs (net direct) filled by RBC area residents	86
Indirect supply chain jobs (multiplier effects see Table 12.18)	35
Net additional employment to RBC area	121

Table 12.18: Application of Place-based Multipliers to 86 net direct construction jobs

Multiplier	Non-Tradeable Sector		Tradeable Sector		Indirect FTE jobs
	Multiplier	FTE Jobs	Multiplier	FTE jobs	
Low	0.1	9	0.3	26	35

Figures are individually rounded and may not sum.

12.114 Table 12.17 illustrates that of the 139 direct FTE jobs supported during the construction of the Development, 86 of these will provide employment for RBC residents. A further 35 net additional indirect FTE jobs will be supported during construction of the Development. Therefore, the net employment effect to the RBC area during the construction phase is 121 FTE jobs.

12.115 The sensitivity of construction employment is considered to be moderate, noting that there are 5,000 construction jobs within the RBC area currently, representing 7% of workforce jobs in the RBC area as established in the baseline conditions. The magnitude of change is considered to be minor in the context of the 121 net additional FTE employment to the RBC area, representing 2.4% of construction employment in the RBC area currently. Therefore, there is likely to be a temporary, minor beneficial effect on employment in the RBC area during the construction phase which is not considered significant.

Effects on Wider Human Health

12.116 In the absence of mitigation, residents living in proximity of the Site in the construction phase would be affected by construction traffic, noise, dust, emissions and visual disturbance from the presence of construction machinery and plant (refer to Chapter 5 of the ES for the construction programme and activities). This would have the potential to have adverse effects on mental and physical health and the quality of life over the construction period. Whilst temporary in nature, effects would be felt over the whole construction phase such that they could range from Negligible to Major Adverse.

12.117 A summary of the likely significant effects from the construction phase in respect to other topics within the ES are set out in Table 12.19 below.

Table 12.19: Effects during Construction – Wider Human Health

Effect	Significance of Effect
Landscape and Visual	
Effects of construction on visual receptors such as users of PRoW, residents of properties adjacent to or in proximity to the Site, users of Tandle Hill Park and those travelling along Thornham Lane.	Minor to Major Adverse
Transport	
Accidents and Safety	Minor Adverse
Air Quality	
Increase in pollutant concentrations as a result of exhaust emissions arising from construction phase traffic and plant	Negligible (Not Significant)
Noise and Vibration	
Noise form Construction Works	Minor-Moderate Adverse
Climate Change	
N/A	N/A

Operational Phase

Effects on Housing Delivery

12.118 The Development will provide up to 1,380 new homes (Use Class C3), of which 233 are to be delivered as part of the detailed element and up to 1,147 will be delivered as part of the outline element.

12.119 Table 12.20 illustrates the tenure and bedroom size of the 233 homes that comprise the detailed element of the Development. The tenure and bedroom size of the 1,147 homes comprising the outline element will be determined at the Reserved Matters stage.

Table 12.20: Housing Mix for the Detailed Element (C3 units)

Residential Unit Size	Total Number of Homes	Affordable	Market
1 bedroom	8	8	0
2 bedrooms	16	14	2
3 bedrooms	50	13	37
4 bedrooms	135	0	135
5 bedrooms	24	0	24
Total	233	35	198

12.120 15% of the homes will be delivered as affordable homes, which is a greater proportion than required by Policy C4 of RBC's adopted Core Strategy, which requires 7.5% of the overall scheme to be delivered as affordable housing.

12.121 Policy SP2 of RBC's Core Strategy 'The Spatial Strategy for the Borough' seeks to deliver 460 new homes a year between 2012 – 2028. This amounts to 7,360 homes over the 16-year period. The Development's delivery of up to 1,380 homes will contribute 18.8% of the RBC area's total housing requirement over the Local Plan period.

12.122 The Development's provision of up to an additional 1,380 homes in the RBC area, of which a proportion will be affordable, will provide homes for some of the 7,801 households currently on the RBC housing waiting list. The additional homes will also help to address overcrowding which currently stands higher than the national average (6%) at 8% of households.

12.123 The sensitivity of housing delivery is considered to be moderate, noting that the proportion of overcrowded homes and the average household size in the RBC is higher than the national average. However, the RBC area has seen a decline in the number of homes on the housing waiting list. The magnitude of change is considered to be major in the context of the Development contributing 18.8% of RBC's housing requirement from over the Local Plan period. Therefore, there is likely to be a permanent, major to moderate beneficial effect on housing delivery during the operational phase, which is considered significant.

Effects on Household Expenditure

12.124 The Development will introduce up to 1,380 new households into the RBC area. The new households will provide an increase in consumer spending, as future residents will use shops and services to meet their day-to-day needs.

12.125 Utilising the average household expenditure figures presented in Table 12.9, it is calculated that the Development could generate additional household expenditure of £27.7m per annum.

12.126 The sensitivity of household expenditure in the RBC area is considered to be moderate, noting that average annual household expenditure in the RBC is lower than the national average but generally higher than the average for Greater Manchester. The magnitude of change is considered to be minor in the context of the Development increasing household expenditure in the RBC area by 1.5%. Therefore, there is likely to be a permanent, minor beneficial effect on household expenditure in the RBC area during the operational phase, which is not considered significant.

Effects on Early Years Education

12.127 Applying RBC's pupil yield multiplier for early years education as detailed in the 'Assessment Methodology' section of this chapter (refer to Table 12.3), to the Development's up to 1,380 proposed homes, it is estimated that the Development will yield a need for up to 207 additional early years places.

12.128 The sensitivity of early years education in the Study Area is considered to be low noting that there are eight providers within the Study Area providing a total of 438 early years childcare

places, which is a greater number of places than required to support the Development's future population. Residents of the Development will be able to register for a place with early years providers in the Study Area in the same way that existing residents can. The magnitude of change is considered to be major on the basis that the 207 places required to support the Development will require 47% of the early years places provided within the Study Area. On this basis, it is considered that there will be a moderate to minor adverse effect on early years education at the local level during the operational phase which is not considered significant.

Effects on Primary Education

12.129 Applying RBC's pupil yield multiplier for primary education (refer to Table 12.3), it is calculated that the Development's up to 1,380 homes will create a need for up to 290 additional primary school places.

12.130 The sensitivity of primary education in the local area to the Development is considered to be high, noting that whilst there are currently primary school places available within the Rochdale South West Primary Planning Area, the number of available places is forecast to reduce in the coming years, with the number being insufficient (40 places) to accommodate the additional demand created by the Development (290 places). The magnitude of change is considered to be major, in the context of the Development creating a need for an additional 290 primary school places, which would increase the number of primary school students on roll in the Rochdale South West Primary Planning Area by 14.8%. On this basis, there is considered to be a major adverse effect on primary education at the local level during the operational phase, which is considered significant and requires mitigation.

12.131 However, the Development does include the provision of land to accommodate an extension of St John's VA Church of England Primary School, Thornham. The scale of the extension is to be confirmed at later design stage with the Local Education Authority. The extension of this school therefore has the potential to accommodate the demand for primary school places from the Development. However, the extension of the school has not been relied upon within this assessment in order to provide a worst-case scenario.

Effects on Secondary Education

12.132 Applying RBC's pupil yield multiplier for secondary education (refer to Table 12.3) it is calculated that the Development's up to 1,380 homes will create a need for up to 207 additional secondary school places.

12.133 The sensitivity of secondary education is considered to be high, noting that whilst there are currently places available within the Middleton Township Secondary and Rochdale Township Secondary Planning Areas, forecasts indicate that by 2028/29 there will be no available places to accommodate the demand for secondary school places created by the Development. The magnitude of change is considered to be minor, in the context of the Development creating a need for an additional 207 secondary school places, which would increase the number of secondary school students on roll in the Middleton Township Secondary and Rochdale Township Secondary Planning Areas by 2.1%. On this basis, there is considered to be a moderate to minor adverse effect on secondary education at the local level during the operational phase which is not considered significant.

Effects on GP Provision

12.134 Applying the average household size for the RBC area of 2.45 persons per household as identified in the 'Baseline Conditions', to the Development's proposed up to 1,380 homes, it is estimated that the Development will provide homes for approximately 3,381 people.

12.135 As outlined in the 'Assessment Methodology' section of this chapter, it is assumed that all future residents of the Development will be new to the area and therefore will need to register with a local GP (a worst-case assumption). On this basis, the Development is expected to create a need for 3,381 additional GP places.

12.136 Baseline conditions identified that within the GP provision located in the Study Area, there is capacity to accommodate 24 new patient registrations when assessed against the HUDU capacity benchmark.

12.137 The additional 3,381 GP places required by the Development cannot therefore be accommodated within the existing GP provision and therefore it is considered that the Development will have an adverse effect on GP Provision.

12.138 The sensitivity of GP provision in the local area is considered to be high, noting that there are only three GP practices within the Study Area, two of which are operating over-capacity and the practice with capacity only has limited available capacity (24 places). The magnitude of change is considered to be major in the context of the Development creating a need for 3,381 additional GP Places, increasing the population of the Study Area by 15.4%. On this basis there would be a major adverse effect on GP provision at the local level during the operational phase which is considered significant and requires mitigation.

Effects on Wider Human Health

- 12.139 An assessment of effects of the Development which have a bearing on human health and well-being have been identified through the ES.
- 12.140 A summary of the likely significant effects of the Development during operation is set out in Table 12.21 below. Without additional mitigation, effects on human health from transport, air quality and noise are not anticipated to be significant.
- 12.141 There would be some major to moderate adverse effects (significant) on a number of visual receptors as a result of the completed Development.
- 12.142 There is a Moderate Adverse and significant effect anticipated with respect to future users of the Site and the effect of heatwaves as climate change progresses.

Table 12.21: Significance during Operation – Wider Human Health

Effect	Significance of Effect
Landscape and Visual Effects	
Operational effects on visual receptors such as users of PROW, residents of properties adjacent to or in proximity to the Site, users of Tandle Hill Park and those travelling along Thornham Lane.	Minor to Major Adverse
Transport	
Accidents and Safety	Negligible
Air Quality	
Increase in pollutant concentrations as a result of additional traffic exhaust emissions arising from operational phase	Negligible
Noise and Vibration	
Change in Road Traffic Noise	Minor Adverse
Climate Change	
Effects of climate change on future site users	Moderate-Minor Adverse
Effects of climate change on the natural environment	Moderate Adverse

Effects on Open/Play Space

- 12.143 As identified earlier in the chapter, the Development will provide homes for up to 3,381 people. Applying RBC's quantity standard of 1 hectare of local open space per 1,000 population it is calculated that the Development will generate a need for 3.4 hectares of local open space (excluding outdoor sports provision).
- 12.144 The Development is providing up to 46.42 hectares of local open space comprising:
- Amenity space = 1.84 hectares;
 - Parks and gardens = 7.85 hectares;
 - Food growing = 0.98 hectares;

- Formal play areas = 0.60 hectares; and
- Natural/semi-natural open space = 35.05 hectares.

12.145 The Development will deliver up to +43.02 hectares more than the requirement based on RBC's quantity standards for the provision of local open space.

12.146 There is one area of play space (Park 3, labelled as 4 on Figure 12.6) that meets the FIT accessibility standard from the Site (located within 400m). In addition, there are five areas of outdoor sports provision (Thornham Cricket Ground, Park 1, Park 2, Manchester Golf Course, and Royle Bowling and Billiards Club) that are within FIT accessibility standard (they are located within 700m of the Site). In addition, there are two allotment sites within 700m of the Site, and one public parks and garden within 700m of the Site. The sensitivity of open/play space provision in the local area is considered to be moderate, noting that there is a range of existing open/play space within 1.2km of the Site. However, there is only one area of play space within the FIT accessibility standard (400m). The magnitude of change is considered to be major in the context of the Development providing up to 46.42 hectares of local open space, incorporating formal play areas. On this basis, there will be a permanent major to moderate beneficial effect on open/play space at the local level during the operational phase which is considered significant.

Effects on Employment

12.147 The Development will deliver non-residential floorspace comprising a local centre. Applying the employment density assumptions outlined in the 'Assessment Methodology', it is estimated that the Development's local centre could support in the region of 65 FTE jobs on-Site as illustrated in Table 12.22.

Table 12.22: Employment Supported On-Site by the Development

Use	Indicative Floorspace (sqm)			Employment density		FTE jobs
	GEA	GIA	NIA	Sqm per FTE	GIA or NIA	
Local Centre	1,720	1,634	1,307	20	NIA	65

12.148 Application of the additionality factors explained in the 'Assessment Methodology' section of this chapter, establishes that of the 65 FTE jobs supported on-Site, the net additional employment effect to the RBC area will be 56 FTE jobs, of which 40 FTE jobs will provide net additional employment for residents of the RBC area as illustrated in Table 12.23.

Table 12.23: Net Additional Operational Employment from the Development

	Jobs (FTE)
Gross Job Creation	65
Displaced jobs from elsewhere in RBC area (0%)	0
Net jobs in the RBC area (gross jobs minus displaced jobs)	65
Jobs filled by people who live outside of the RBC area (38%)	25
Jobs (net direct) filled by RBC area residents	40
Indirect supply chain jobs (multiplier effects see Table 12.22)	16
Net additional employment to RBC area	56

Table 12.24: Application of Place-based Multipliers to 40 net direct operational jobs

Multiplier	Non-Tradeable Sector		Tradeable Sector		Indirect FTE jobs
	Multiplier	FTE Jobs	Multiplier	FTE jobs	
Low	0.1	4	0.3	12	16

Figures are individually rounded and may not sum.

12.149 The sensitivity of employment in the RBC area is considered to be moderate, noting that there are fewer jobs than there are residents of working age. The RBC area has a lower jobs' density than both Greater Manchester and the national average. The magnitude of change is considered to be negligible, on the basis that the net additional employment effect to the RBC area of 56 FTE jobs created by the Development will increase jobs in the RBC area by 0.06%. On this basis, the Development will provide a permanent, negligible effect on employment in the RBC area which is not considered significant.

12.150 The sensitivity of resident employment in the RBC area is considered to be moderate, noting that resident economic activity and employment in the RBC area is lower than the average for Greater Manchester and England. The magnitude of change is considered to be negligible, on the basis that the additional 40 FTE jobs to RBC residents created by the Development will increase resident employment in the RBC area by 0.04%. On this basis, the Development will provide a permanent, negligible effect on resident employment in the RBC area which is not considered significant.

Mitigation Measures

Construction Phase

12.151 No significant adverse effects have been identified during the Development's construction phase in relation to population and therefore no mitigation is required.

12.152 In relation to human health, there would be Minor – Major Adverse effects on visual receptors during construction (refer to Table 12.19). Mitigation measures will include landscape and visual industry standard measures implemented through a Construction and Environmental Management Plan (CEMP), to be secured through a planning condition with RBC. Measures will

include unloading of construction materials and equipment within the Site boundary to limit adverse effects on views, protecting existing vegetation on and around the Site from damage, and limiting the hours of construction works to 08.00 – 18.00 hours Monday to Friday; 08.00 – 13.00 hours Saturday; and no time on Sundays, Bank Holidays or Public Holidays.

12.153 Despite no significant adverse effects being identified for air quality, transport or climate change during construction, effects will be limited through the CEMP which will include measures such as noise, dirt and dust levels being kept to a minimum, cleaning of local roads regularly where dirt is spread by construction traffic, limiting adverse effects on air quality and dust. Appropriate construction traffic routing will also ensure construction vehicles avoid town centres and do not travel at peak times. This will be secured through a Construction Traffic Management Plan (CTMP).

12.154 The implementation of appropriate best practice noise measures will be adopted to mitigate potential significant effects from construction noise. There is general guidance on the control of environmental noise impact of construction works in BS5288-1^{xxxiii}. The main method of controlling and reducing noise from construction activities is the adoption of Best Practical Means (BPM) as defined in the Control of Pollution Act 1974 (CoPA)^{xxxiv}. Under Section 60 of CoPA, local authorities have powers to control activities at construction sites e.g. limiting hours of operation and the use of various items of plant. Further mitigation measures are set out in Chapter 11 of the ES: Noise and Vibration.

Operational Phase

12.155 A significant adverse effect has been identified on primary education (a major adverse effect) and GP provision (a major adverse effect) during the operational phase which requires mitigation. Mitigation is expected to be requested in the form of a financial contribution to increase primary education and GP provision in the local area to the Site.

12.156 As stated earlier, the Development does include the provision of land to accommodate an extension to St John's VA Church of England Primary School, Thornham. This extension has not been relied upon within this assessment in order to provide a worst-case assessment. However, the extension to the St John's VA Church of England Primary School could provide mitigation against the adverse effects of the Development on primary education.

12.157 No further significant adverse effects have been identified during the operational phase in relation to population which require mitigation.

- 12.158 In relation to human health, although negligible operational effects are anticipated for air quality and transport, the implementation of a Travel Plan, to be secured through a planning condition, will encourage sustainable and active modes of travel. The Travel Plan will set out measures to reduce the reliance on the private car through car-sharing methods, encouraging cycling as a mode of transport by promoting the provided cycle parking to residents provide a cycling map with local routes and bike shops. Public transport use will be encouraged through measures such as signposting residents to local journey planning websites and personalised journey plans. These measures will contribute to a betterment in air quality emissions.
- 12.159 Effects due to noise from traffic generated by the Development are assessed as minor adverse (not significant), in the absence of mitigation. Therefore, no mitigation is required.
- 12.160 Vulnerable future users of the Site are at risk during heatwaves across the lifespan of the Development. A landscaping and SuDS strategy will ensure that green / blue infrastructure is provided and maintained on-site to provide level of thermal cooling/shading.
- 12.161 As outlined in the Energy & Climate Adaptation Statement submitted with the application, dwellings in the detailed phase of the Development are all designed with low emissivity coated glazing which is designed to limit unwanted solar gains in summer. Most dwellings will benefit from integrated garages, which provide a thermal mass benefit by absorbing excess heat during periods of high internal temperature. These measures would be incorporated into the outline phase of the Development and secured through suitably worded planning conditions.
- 12.162 As outlined in Chapter 7 (Biodiversity) of the ES, ongoing ecological monitoring will be undertaken. The ongoing monitoring for a minimum of 30 years will be outlined within the LEMP for the Development, to be secured through a suitably worded planning condition at a later design stage. The LEMP will ensure the appropriate maintenance of new and existing landscaping and plant species over the 30 years of the Development, which will reduce the risk of plant failure during periods of drought, heatwaves, or heavy rainfall.

Residual Effects

Construction Phase

- 12.163 This assessment has identified that the Development will not result in any significant adverse effects during the construction phase in relation to population. The residual effect on employment therefore remains minor beneficial at the borough level.

12.164 In relation to human health, visual effects during construction would be major to minor adverse. Following mitigation measures outlined above, the effects from construction noise on human health receptors is considered Minor Adverse and not significant. The residual effects from transport accidents and safety and air quality construction effects are considered to be negligible.

Operational Phase

12.165 Following mitigation, the residual effects on GP provision and primary education provision will be negligible at the local level. The residual effect on housing remains major to moderate beneficial at the borough level;; household expenditure remains minor beneficial at the local level;; early years education remains moderate to minor adverse at the local level; secondary education remains moderate to minor adverse at the local level; open/play space provision remains major beneficial at the local level; employment remains negligible at the borough level; and resident employment remains negligible at the borough level.

12.166 In relation to human health, visual effects during operation would be moderate adverse to negligible. Operational effects from changes in road traffic noise are considered Minor Adverse and not significant. Operational effects from transport accidents and safety, and air quality emissions from traffic are considered to be negligible.

12.167 There is a Moderate Adverse and significant effect with respect to the risk on future Site users during periods of heatwaves. All other climate change resilience effects on infrastructure, the natural environment and flood risk are considered Minor Adverse and not significant.

Cumulative Effects

12.168 Consideration has been given to the seven cumulative developments described within Chapter 2 EIA Methodology of the ES, for the potential to have likely significant cumulative effects on population and human health when combined with the Development.

12.169 All seven cumulative developments are considered relevant for inclusion within the cumulative population and human health assessment. All seven cumulative developments will have cumulative employment effects with the Development during the construction phase and Table 12.25 details the receptors associated with each cumulative development for the potential to have cumulative effects during the operational phase.

Table 12.25: Potential for Operational Cumulative Effects on each Population and Human Health Receptor by each of the Cumulative Developments

Receptors during the Operational Phase	22/01190/FUL	Policy JPA20	20/01439/FUL	18/01399/FUL	15/01183/OUT	16/01399/HYBR	21/00744/FUL
Housing	Yes	Yes	No	Yes	Yes	Yes	Yes
Household Expenditure	Yes	Yes	No	Yes	Yes	Yes	Yes
Early Years Education	Yes	Yes	No	Yes	Yes	Yes	Yes
Primary Education	Yes	Yes	No	Yes	Yes	Yes	Yes
Secondary Education	Yes	Yes	No	Yes	Yes	Yes	Yes
GP Provision	Yes	Yes	No	Yes	Yes	Yes	Yes
Wider Human Health	Yes	Yes	No	Yes	Yes	Yes	Yes
Open/play Space	Yes	Yes	No	Yes	Yes	Yes	Yes
Employment	No	No	Yes	No	No	Yes	No

Construction Phase

Effects on Employment

12.170 Construction of the cumulative developments will generate employment across all construction disciplines from ground workers to construction management. It is not possible to quantify the cumulative effect of employment generation because details of the number jobs during the construction phase is not available in the publicly accessible planning application material. Furthermore, it is not known whether the construction phases of the cumulative developments overlap. To provide a 'worst case' assessment for construction employment, it is assumed that they do not overlap and therefore the same construction workforce could work on the Development and each of the cumulative developments. On this basis, it is considered that the cumulative developments and the Development combined will provide a temporary, minor beneficial cumulative effect on employment during the construction phase, the same as was assessed for the Development.

Effects on Wider Human Health

12.171 All cumulative developments are likely to require a CEMP to be secured by planning condition. Standard mitigation measures for reducing construction phase effects are tried and tested and are likely to reduce effects so that they are minor adverse to negligible and therefore not significant, and temporary for receptors of each development. The developments are situated at a distance from each other such that significant cumulative effects would not occur once CEMPs and CTMPs are implemented, should their construction phases be concurrent.

Operational Phase

Effects on Housing

12.172 Six of the cumulative developments will provide additional homes and therefore have the potential to provide a significant cumulative effect when combined with the Development as identified in Table 12.25. The six cumulative developments will collectively deliver 2,361 additional homes. The Development will deliver up to a further 1,380 homes. The Development and the cumulative developments combined will deliver 3,741 homes.

12.173 The sensitivity of the housing market within the RBC area has been identified as moderate. The magnitude of change is considered to be major in the context of the Development and cumulative developments combined, contributing 50.8% of the RBC area's housing requirement over the RBC Core Strategy Plan period. On this basis, there is likely to be a permanent, major to moderate beneficial cumulative effect on housing in the RBC area during the operational phase, which is considered significant.

Effects on Household Expenditure

12.174 Applying the annual household expenditure figures for the RBC area, as presented in Table 12.9, it is calculated that the Development and identified cumulative developments could generate combined additional household expenditure of £75.2m per annum.

12.175 The sensitivity of household expenditure in the RBC area has been identified as moderate. The magnitude of change is considered to be minor in the context of the Development and cumulative developments combined, increasing household expenditure in the RBC area by 4.1%. Therefore, there is likely to be a permanent, minor beneficial cumulative effect on household expenditure in the RBC area during the operational phase, which is not considered significant.

Effects on Early Years Education

12.176 Applying RBC's pupil yield multiplier for early years education (refer to Table 12.3) to the Development's and cumulative development's 3,741 homes, it is calculated that there will be cumulative need for an additional 561 early years places.

12.177 The sensitivity of early years education in the local area has been identified as low. The magnitude of change is considered to be major in the context of the Development and cumulative developments creating a requirement for an additional 561 early years places which

is greater than the number of early years' places currently provided within the Study Area. The cumulative shortfall is equivalent to 123 places. On this basis, there is considered to be a permanent, moderate to minor adverse cumulative effect on early years education at the local level during the operational phase, which is not considered significant.

Effects on Primary Education

12.178 Applying RBC's pupil yield multiplier for primary education (refer to Table 12.3) to the Development's and cumulative development's 3,741 homes, it is calculated that there will be cumulative need for an additional 786 primary school places.

12.179 The Development includes the provision of land to accommodate an extension of St John's VA Church of England Primary School, Thornham. However, this extension has not been relied upon within this assessment in order to provide a worst-case assessment. Similarly, it is noted that the cumulative development at Land Bound by Manchester Road, Hareshill Road and Pilsworth Road West of Junction 19 of the M62 Rochdale (16/01399/HYBR) incorporates land set aside for a new primary school of between 6,000 and 10,000 sqm. However, this also has not been relied upon within the assessment as for the cumulative development is not providing the school, only the land for the school and therefore there is no guarantee that the primary school will be delivered.

12.180 The sensitivity of primary education within the local area has been identified as high. The magnitude of change is considered to be major, in the context of the cumulative demand for an additional 786 primary school pupils would increase the number of primary school students on roll in the Rochdale South West Primary Planning Area by 40.1%. On this basis, there is considered to be a major adverse cumulative effect on primary education at the local level during the operational phase, which is considered significant and will require mitigation. It is assumed that each development will mitigate the impact of their own development in the form of a financial contribution and following mitigation the cumulative effect on primary education will be negligible.

Secondary Education

12.181 Applying RBC's pupil yield multiplier for secondary education (refer to Table 12.3) to the Development's and cumulative development's 3,741 homes, it is calculated that there will be cumulative need for an additional 561 secondary school places.

12.182 The sensitivity of secondary education within the local area has been identified as high. The magnitude of change is considered to be moderate in the context of the cumulative demand

for an additional 561 secondary school places, which would increase the number of secondary school students on roll in the Middleton Township Secondary and Rochdale Township Secondary Planning Areas by 5.8%. Therefore, there is likely to be a major to moderate adverse cumulative effect on secondary education at the local level during the operational phase, which is considered significant and will require mitigation. It is assumed that each development will mitigate the impact of their own development in the form of a financial contribution and following mitigation the cumulative effect on secondary education will be negligible.

Effects on GP Provision

12.183 Applying the average household size for the RBC area of 2.45 persons per household to the cumulative developments 2,361 homes, establishes that the cumulative developments could provide homes for 5,784 people. The Development will provide homes for approximately 3,381 people. Therefore combined, the Development and the cumulative developments will provide homes for 9,165 people. To provide a worst-case assessment it is assumed that all of these future residents will need to register with a local GP.

12.184 The sensitivity of GP provision in the local area has been identified as high. The magnitude of change is considered to be major in the context of the Development and cumulative developments combined, increasing the population of the Study Area by 41.8%. On this basis, there is likely to be a major adverse effect on GP provision at the local level during the operational phase, which is considered significant and will require mitigation in the form of a financial contribution. It is assumed that each development will mitigate the impact of their own development and following mitigation the cumulative effect on GP provision will be negligible.

Effects on Wider Human Health

12.185 The traffic data utilised for the Transport, Air Quality, and Noise assessments in the ES already includes cumulative developments and therefore, no additional significant cumulative effects are anticipated with regards to the interface between these specific disciplines and human health. It is assumed that each of the cumulative developments will be designed to a high-quality, making the best use of the land to create healthy, vibrant developments that will benefit the local area for where the Site and cumulative development sites are located. Therefore, the cumulative effect on wider human health will be minor beneficial, which is not considered significant.

Effects on Open/Play Space

- 12.186 The description of development for each of the cumulative developments refers to the provision of open space and landscaping although the exact quantum of open space that the cumulative developments are providing is unknown.
- 12.187 The sensitivity of open/play space provision in the local area has been identified as moderate. However, in the context of the cumulative developments contributing an unknown size of open space, the worst-case assessment is to consider a negligible cumulative magnitude of change. On this basis, there is likely to be a negligible cumulative effect on open/play space provision at the local level during the operational phase, which is not considered significant.

Effects on Employment

- 12.188 Only one of the cumulative developments (20/01439/FUL) will create operational employment. Review of the documents submitted with the accompanying planning application for this scheme could not identify an associated employment number. However, the scheme's delivery of 17,669 sqm (GEA) of logistics floorspace comprising B8/B2 development with the application of the HCA employment density for B8 use (worst-case assumption as this use class results in the fewest number of jobs) of 95sqm (GEA) per FTE job, suggests that the scheme could support 186 FTE jobs. Applying the same additionality assumptions as applied to the Development's operational employment, suggests that the scheme's net additional employment effect to the RBC area is 161 FTE jobs, of which 115 of these jobs will provide employment for RBC residents.
- 12.189 The Development will create net additional employment to the RBC area of 56 FTE jobs of which 40 of the jobs will provide employment for RBC residents. Therefore combined, the Development and cumulative developments will create net additional employment in the RBC area of up to 217 FTE jobs, of which 155 will provide employment for RBC residents.
- 12.190 The sensitivity of employment in the RBC area has been identified as moderate. The magnitude of change is considered to be minor, as the 217 FTE jobs will increase employment in the RBC area by 0.25%. On this basis, there is likely to be a minor beneficial cumulative effect on employment at the borough level during the operational phase, which is not considered significant.
- 12.191 The sensitivity of resident employment in the RBC area has been identified as moderate. The magnitude of change is considered to be minor as the 155 FTE jobs providing employment for RBC residents will increase resident employment by 0.16%. On this basis, there is likely to be

a minor beneficial cumulative effect on resident employment at the borough level during the operational phase, which is not considered significant.

Summary

Introduction

12.192 The Population and Human Health assessment considers the impact of the Development on the local community in the context of the area immediately surrounding the Site (the local Study Area) and the wider local authority area (Rochdale Borough Council area) during both the construction phase and once the Development is complete and occupied. In particular, the assessment considers the impact of the Development on housing, household expenditure, education (early years, primary and secondary), primary healthcare (GP provision), wider human health, open/play space and employment.

12.193 The age profile of the population living in the area immediately surrounding the Site is comparable to Rochdale Borough and the national average, but older than that of the wider Greater Manchester. Economic activity and employment in Rochdale Borough is lower than the average for Greater Manchester and England. Rochdale has fewer jobs for every resident of working age than Greater Manchester and the national average. The transport & storage sector accounts for the highest proportion of jobs in the local study area, followed by the manufacturing sector, accounting for a higher proportion of employment than the average for Rochdale, Greater Manchester and England. Homes in Rochdale tend to be more over-crowded, with a larger average household size than the average for Greater Manchester and England. There are eight nurseries, seven primary schools and nine secondary schools within proximity of the Site, collectively showing capacity currently, but which forecasts suggest will diminish in the coming years. There are three GP practices and only one has capacity. There is a range of open space comprising play space, playing fields, allotments and outdoor sports facilities within proximity of the Site.

Construction

12.194 It is anticipated that the Development will take approximately 14 years to complete and will support employment (121 net additional jobs) representing 2.4% of construction employment in Rochdale currently, which would result in a temporary, minor beneficial effect over the construction period.

12.195 Construction effects will be appropriately mitigated through a CEMP and CTMP which will be secured through a planning condition. Following mitigation, construction effects from air quality and transport would be negligible and would be Minor Adverse in relation to construction noise.

Operational

12.196 Once the Development is complete and operational the 1,380 new homes will accommodate in the region of 3,381 residents. The additional expenditure generated by new residents will provide positive benefits to the local economy, supporting existing shops and business in Rochdale.

12.197 The increase in population will impact upon the availability of education, healthcare, open space and recreation facilities within the local area surrounding the Site. It is considered that the Development will have an adverse effect on all phases of education but will have a significant adverse effect on primary education, as the existing schools will not be able to accommodate the additional demand for school places created by the Development's future residents. Mitigation will be required in the form of a financial contribution to increase education provision. However, the Development does incorporate the provision of land to accommodate an extension to St John's VA Church of England Primary School, Thornham.

12.198 The Development will have a adverse effect on GP facilities in the local area to the Site as the existing available capacity is not sufficient to accommodate the Development's future population. The impact will be mitigated via a financial contribution, following which there will be a negligible effect on local healthcare.

12.199 The new homes will contribute towards Rochdale Borough Council's housing target (including affordable housing provision) and has the potential to enhance the quality and quantity of housing options across the Rochdale market. Therefore the Development will have a significant beneficial effect on housing delivery.

12.200 The Development will deliver new areas of local open space incorporating formal play space for use by future residents and existing communities, thereby providing significant positive benefits and contributing towards encouraging healthy and active lifestyles. The effects on human health from air quality and traffic impacts are considered to be negligible and the effect due to additional operational traffic noise will be Minor Adverse.

12.201 The effects of future climate change on future Site users will be Moderate Adverse and significant due to heatwaves.

12.202 The Development will support in the region of 65 jobs on-site through the delivery of new shops and services, providing positive benefits to the local economy and employment for local residents.

12.203 Table 12.26 contains a summary of the likely significant effects of the Development.

Table 12.26: Table of Significance – Population and Human Health

Potential Effect	Nature of Effect (Permanent/ Temporary)	Significance (Major/Moderate/Minor) (Beneficial/Adverse/Negligible)	Mitigation / Enhancement Measures	Geographical Importance*							Residual Effects (Major/Moderate/Minor) (Beneficial/Adverse/Negligible)	
				I	UK	E	R	C	B	L		
Construction												
Employment	Temporary	Minor Beneficial	None required						X		Minor Beneficial	
Wider Human Health	Temporary	Major Adverse to Negligible	Protection of retained planting. Implementation of a CEMP to be secured through a planning condition							X	Major to Minor Adverse (Visual Effects) Minor Adverse (Noise) Negligible (Transport, Air Quality)	
Completed Development												
Housing Delivery	Permanent	Major-Moderate Beneficial	None required						X		Major-Moderate Beneficial	
Household Expenditure	Permanent	Minor Beneficial							X		Minor Beneficial	
Early Years Education	Permanent	Moderate-Minor Adverse								X	Moderate-Minor Adverse	
Primary Education	Permanent	Major Adverse	Financial Contribution							X	Negligible	
Secondary Education	Permanent	Moderate-Minor Adverse	None required							X	Moderate-Minor Adverse	
GP Provision	Permanent	Major Adverse	Financial Contribution							X	Negligible	
Wider Human Health	Permanent	Moderate Adverse to Negligible	Ongoing maintenance and management of landscape features. Implementation of a Travel Plan.							X	Moderate Adverse to Negligible (Visual Effects) Minor Adverse (Noise) Negligible (Transport, Air Quality)	
Open/Play Space	Permanent	Major Beneficial	None required							X	Major Beneficial	
Employment	Permanent	Negligible								X		Negligible
Resident Employment	Permanent	Negligible								X		Negligible
Cumulative Effects												
Construction												

Employment	Temporary	Minor Beneficial	None required							X		Minor Beneficial
Wider Human Health	Temporary	Minor Adverse to Negligible	Implementation of a CEMP							X		Minor Adverse to Negligible
<i>Completed Development</i>												
Housing Delivery	Permanent	Major-Moderate Beneficial	None required							X		Major-Moderate Beneficial
Household Expenditure	Permanent	Minor Beneficial								X		Minor Beneficial
Early Years Education	Permanent	Moderate-Minor Adverse								X		Moderate-Minor Adverse
Primary Education	Permanent	Major Adverse	Financial Contribution							X		Negligible
Secondary Education	Permanent	Major-Moderate Adverse	Financial Contribution							X		Negligible
GP Provision	Permanent	Major Adverse	Financial Contribution							X		Negligible
Wider Human Health	Permanent	Minor Beneficial	None required							X		Minor Beneficial
Open/Play Space	Permanent	Negligible								X		Negligible
Employment	Permanent	Minor Beneficial								X		Minor Beneficial
Resident Employment	Permanent	Minor Beneficial								X		Minor Beneficial

*** Geographical Level of Importance**

I = International; UK = United Kingdom; E = England; R = Regional; C = County; B = Borough; L = Local

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