

6.0 POPULATION & HUMAN HEALTH

Introduction

- 6.1 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.

Policy Context

National Planning Policy Frameworkⁱ

- 6.2 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. At the centre of the 2019 NPPF is the principle of sustainable development, with three overarching objectives: economic, social and environmental. 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 a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being (paragraph 8).
- 6.3 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).
- 6.4 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 sustainable economic growth (paragraph 80).
- 6.5 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 91).
- 6.6 To provide the social, recreational and cultural facilities and services that 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 92).

- 6.7 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 greater 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).

Planning Practice Guidanceⁱⁱ

- 6.8 The NPPF is supported by Planning Practice Guidance (PPG) on a range of different topics.
- 6.9 The PPG on Housing and Economic Needs Assessment (February 2019) outlines the standard methodology for calculating housing need for individual local authorities and requires plan making authorities to break this down by the need for different types of housing to meet the needs of particular groups, such as older or disabled people.
- 6.10 The PPG on Health and Wellbeing (July 2017) states that local planning authorities should ensure that health and wellbeing, and health infrastructure are considered in local and neighbourhood plans and in planning decision making in order to promote healthy communities.
- 6.11 The PPG on Viability (July 2018) states that local plans should set out the policy requirement for the contributions expected from different types of development, setting out policy requirements for the level and types of affordable housing, and for supporting infrastructure including (but not limited to) education, transport, health, green infrastructure and digital infrastructure.

Local Planning Policy

- 6.12 The Development is located within the administrative boundary of Arun District Council (ADC).

Adopted Arun Local Plan 2011-2031 (July 2018) ⁱⁱⁱ

- 6.13 ADC adopted its new Local Plan in July 2018, which sets out the spatial strategy and housing

requirement for the District over the plan period 2011-2031.

- 6.14 Paragraph 3.39 recognises that from a planning perspective, there are opportunities to link new development and town centre regeneration to initiatives which widen local employment opportunities, improve residents' access to local services and facilities, such as employment, training and healthcare, contribute to reducing inequalities and improving the wellbeing of residents.
- 6.15 Policy H SP1 of the adopted Local Plan allocates 20,000 homes for delivery between 2011-2031, with Policy H SP2c (SD8) including at least 1,500 homes to be delivered at Ford. Policy SD8 (Ford) sets out the following minimum requirement for development proposals at the Site:

"Development proposals in the Ford Strategic Allocation will provide at least 1,500 dwellings over the plan period. The site is functionally connected to Arun Valley SPA and development should avoid adverse effects on this designated area. Development proposals must demonstrate compliance with the following key design and infrastructure requirements:

- a. to take account of sustainable links for all modes of transport between the development, Ford Railway Station and the Littlehampton/Arundel cycleway;*
- b. provide a new two-form entry primary school and nursery places;*
- c. provide a Community hub to meet identified local need which includes:*
 - i. new retail, commercial and community facilities,*
 - ii. a new Tier 7 library facility, and*
 - iii. provision of new healthcare facilities for Ford (SD8), Yapton (SD7) and Climping (SD10). Alternatively, where appropriate, proposals may make a contribution towards new facilities or the improvement or expansion of the relevant existing facilities, subject to agreement with the Council,*
- d. incorporate two new sports pitches and changing facilities,*
- e. provide a new 3G pitch facility to serve the east of the District,*
- f. improvements to the A259 between Climping and Littlehampton,*
- g. incorporate planned new employment provision,*
- h. Reflect the historic alignment of the canal,*
- i. maintain visual separation between Ford and Yapton and between Climping and Ford through the layout of the development and provision of landscaped open space; and*
- j. take into account the siting of Ford Wastewater Treatment Works, including the outcomes of an odour assessment, and not prejudice the operation of or the expansion of the treatment plant as required to accommodate future growth in the District."*

- 6.16 Policy EMP SP1 Strategic Economic Growth sets out the Council's sustainable growth aspirations for the District in order to meet the varying needs of different economic sectors. Specifically, the policy includes - the provision of on-site employment within strategic housing

developments (H SP2a, H SP2b and H SP2c). Policy EMP DM1 goes on to explain that, where appropriate, ADC will require the provision of a range of unit sizes including small and medium sized business units and live-work units in new economic development and mixed-use sites to ensure the needs of businesses are met.

6.17 Policy INF SP2 New Secondary School (Arun Local Plan 2011-2031) states that: - *'A minimum of one 6 form entry Secondary School with expansion land for a 4 form entry expansion adjacent shall be provided on a site of at least 10 hectares to serve the new growth in Arun District. The broad location of search is defined as being in the central part of the district based on the increase to the pupil population from the Strategic Sites.'*

6.18 In a report entitled Arun Local Plan Secondary School Identification and Selection (dated August 2017)^{iv}, a requirement was identified for a new secondary school in Arun District to meet the need for secondary school and sixth form places arising from new development in the emerging Arun Local Plan. The majority of the increase in the pupil population is expected to arise from the proposed strategic site allocations at Barnham/Eastergate/Westergate (BEW), Ford, Fontwell and Yapton. Paragraph 9 of the report notes that:

"West Sussex County Council have identified that in order to meet the need for new secondary school places arising from the cumulative impact of development in the area, the new secondary school should come forward in the 'Barnham / Westergate' school planning area which also include the proposed Ford strategic site allocation."

6.19 Of the 11 sites initially considered by ADC and West Sussex County Council (WSCC), two have been shortlisted, both of which are located within immediate proximity of the Site.

6.20 The importance of retail facilities is emphasised in the Local Plan, both from the point of view of economic job creation (paragraph 1.2) and recognition of its importance in supporting and promoting sustainable development (paragraph 2.4). The Development includes a mix of A1 - A5 uses which is in accordance with the provision of site-specific Policy SD8.

6.21 Policy OSR DM1 sets out the requirements regarding open space, sport and recreation in development. Developments will be required to contribute towards these facilities in line with the relevant ADC strategy.

Ford Neighbourhood Plan^v

6.22 Ford Parish Council has prepared a Neighbourhood Plan to guide the future development of

the Parish.

- 6.23 The emerging Ford Parish Neighbourhood Development Plan was submitted for Examination in Summer 2017. However, in September 2017, the appointed Examiner concluded that as the Neighbourhood Plan was examining many of the same issues as the Local Plan inquiry over a similar timeframe, to comply with the 'basic conditions' that a Neighbourhood Plan is tested against, the Examination process should be suspended until the Inspectors Report on the Arun District Local Plan has been issued.
- 6.24 On 8th August 2018 the Examiner appointed to consider the Ford Neighbourhood Plan issued his final report. This confirmed that – subject to his recommended modifications – the Neighbourhood Plan met the 'basic conditions' and could therefore proceed to referendum.
- 6.25 The Submission version of the Ford Neighbourhood Plan (Regulation 15, dated May 2017) proposed the allocation of the land at Ford Airfield for development. The original wording of the site-specific Policy SA1 included the following amongst other provisions:
- Provision of a minimum of 1,500 homes;
 - High-quality imaginative design including permeable layouts for pedestrians, cyclists and vehicles with visually robust outdoor spaces giving a sense of place and sense of orientation;
 - Local areas for play including the provision of sports pitches and village greens;
 - A new local centre comprising, but not limited to, a new community hall, local shop and restaurant, accommodation for the elderly and health centre, which shall be phased, in order to be delivered in line with the proposed development;
 - Potential for a custom/self-build, live/work element of the residential offering; and
 - Subject to assessment of the demand, employment space in the locality for small business and light industrial units (Use Class B1).
- 6.26 In his report, the Examiner suggested the removal of much of this wording on the basis that policies in a Neighbourhood Plan should set out additional detail rather than repeat the policy requirements set out in the adopted Arun District Local Plan. In addition, some policy requirements were removed.
- 6.27 On 20th September, ADC published a statement confirming that it has accepted all of the modifications to the Ford Neighbourhood Plan suggested by the Examiner and proposed that the Plan proceeds to a referendum on the 8 November. At the referendum more than half of the votes were in favour of the Neighbourhood Plan.

- 6.28 The revised Policy SA1, as set out in the Post-Examination version (September 2018), now includes the following, amongst other provisions:

"The area shown on the Proposals Map as SA1 shall be developed in a comprehensive and coherent manner in accordance with all the policies set out in the Arun Local Plan and in particular Policy HSP2 and Policy SD8. In addition to meeting these requirements, the master plan will be expected to: –

- provide that the layout of pedestrian footways, cycleways roads should provide a sense of orientation as well as a sense of place.*
- local areas for play shall include areas designed as "village greens" as well as sports pitches.*
- the proposed community hub shall include the provision of a community hall.*
- the mix of residential units shall include accommodation for the elderly.*
- the new healthcare facilities shall be provided on site as part of development rather than the development being expected to make a financial contribution to healthcare facilities elsewhere."*

Assessment Methodology

Scope of the Assessment

- 6.29 The Development is located in the electoral ward of Yapton within the local authority of ADC. ADC lies within West Sussex County (WSC) (see Figure 6.1). The assessment focuses on the conditions in Yapton ward (the Study Area) as this is where the majority of the Development's effects would be experienced. Baseline statistics for the Study Area are compared to those for ADC, WSC, the South East (SE) region and where relevant, England as a whole to provide wider context.
- 6.30 The following topics have been considered in identifying the likely significant socio-economic effects of the Development:
- Construction phase and operational phase employment generation;
 - Changes in population numbers once the Development is operational;
 - Changes in housing stock levels upon completion of the Development;
 - Changes in levels of local expenditure following completion of the Development;
 - Demands on primary and secondary education infrastructure once operational;
 - Demands on primary healthcare services (GPs and dentists) once operational; and
 - Wider human health effects once operational (with reference to other relevant ES chapters).

- 6.31 Consideration has also been given to the cumulative schemes described within Chapter 2: EIA Methodology for the potential to have likely significant cumulative effects on the environment when combined with the Development.
- 6.32 Construction phase effects on education and healthcare 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. Effects are not anticipated to be significant.
- 6.33 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 likely significant effects of the Development on the environment 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 for the potential to have likely significant cumulative effects on the environment when combined with the Development.

Population

- 6.34 Existing baseline demographic conditions are based on Office for National Statistics (ONS) 2011 Census statistics^{vi} and 2017 Mid-Year Population Estimates (MYPE)^{vii}. However, where appropriate to represent future baseline conditions, reference has been made to the ONS, 2016-based Sub National Population Projections (SNPP)^{viii}, which are the most up-to-date projection series at the time of writing.
- 6.35 The size of the population generated by the Development has been determined using two different methodologies and the results presented as a range. The first method multiplies the number of residential units proposed by the Development by the average household size for the Development's anticipated year of completion (2030) as projected by the ONS 2016-based household projections^{ix}. The second method uses the WSCC Occupancy Rates^x multiplied by the Development's accommodation mix and presents the total population yield generated.

Housing

- 6.36 Existing baseline housing conditions have been informed by the ONS, 2011 Census^{xi} and the ADC Authority Monitoring Report (January 2018)^{xii}.
- 6.37 The impact of the Development on the local housing stock is a qualitative assessment based on the contribution that the Development will make to the identified housing needs established by planning policy (the adopted Arun District Local Plan – July 2018) or any potential shortfall in net housing completions identified in the ADC Authority Monitoring Report (January 2018).

Local Expenditure

- 6.38 Qualitative assessment is made on the potential for new residents living in the Development to increase spending on goods and services in the local area.

Employment

- 6.39 Existing baseline employment conditions in relation to economic activity have been informed by the ONS, Annual Population Survey (APS)^{xiii}, for the 12 months to September 2018. Ward level data is not available from this data source so cannot be calculated for the Study Area. Data for this indicator is only presented for ADC, WSC, the SE region and England. However, claimants of Job Seeker Allowance (JSA) have been considered for the Study Area to determine the number of people looking for employment and the occupations sought.
- 6.40 Baseline employment conditions in relation to occupational sectors have been sourced from the ONS, Business Register and Employment Survey (BRES) 2017^{xiv}.
- 6.41 Baseline employment conditions in relation to commuting patterns have been informed by the ONS, 2011 Census^{xv}.
- 6.42 The likely number of jobs generated during the construction phase has been assessed based on the Construction Industry Training Board (CITB), Labour Forecasting Tool (LFT)^{xvi}. The LFT is able to produce labour forecasts based on historic data. The tool focuses on forecasting labour demand on a month-by-month basis by each occupational group throughout the construction phase of the Development. The LFT calculations have been based on the floorspace schedules set out in Chapter 3: Site and Development Description and have assumed a 10-year (120 month) construction programme from 2020 to 2030 as detailed in Chapter 5: Construction Methodology & Phasing. The level of construction apprenticeships

and of indirect employment generated during the construction period, has been assessed qualitatively and based on professional judgement and experience of previous schemes.

- 6.43 Operational phase employment has been calculated based on guidance provided by the Homes & Communities Agency (HCA), Employment Densities Guide, 3rd Edition, November 2015^{xvii} applied to the floorspace schedules by Use Class.
- 6.44 Floorspace schedules for Development have been provided by Gross Internal Area (GIA). However, the Employment Densities Guide requires floorspace by Net Internal Area (NIA). NIA figures have been calculated following conversion guidance provided by the HCA in the Employment Densities Guide. As a general benchmark, 15-20% is considered a suitable assumption for converting gross to net areas in non-industrial properties. The GIA figures for the Health Centre and Nursery in this assessment have been discounted by 20% to calculate NIA. However, for retail units, the net to gross internal area relationship can be in the region of 90% and therefore GIA figures for Use Classes A1-A5 have been discounted by 10% to calculate NIA for use in this assessment.
- 6.45 Operational phase employment for the Development's proposed nursery has been calculated through application of the Valuation Office Agency (VOA) space requirements for the provision of childcare^{xviii}. Section 337 relates specifically to day nurseries, nursery schools and other day care facilities for under Fives. The most recent version of the guidance was published in March 2019 and no longer contains staff/child ratios or space requirements per child. For this reason, reference has been made to the previous version published in August 2018 which set out the following space requirements and staff/child ratios:
- Space requirements
 - Children under two years: 3.5 sqm per child;
 - Two-year olds: 2.5 sqm per child; and
 - Children aged three to five years: 2.3 sqm per child.
 - Staff/child ratios in early years provision
 - 1 member of staff to every 8 children aged 3-5 years;
 - 1 member of staff to every 4 children aged 2-3 years; and
 - 1 member of staff to every 3 children aged 0-2 years.
- 6.46 Calculation of employment generated by the primary school and care home has been based on professional judgement and expertise from previous schemes.
- 6.47 Guidance from the HCA, Additionality Guide, 4th Edition, 2014^{xix} establishes that gross

additional employment levels would most likely be subject to a degree of 'leakage' (referring to the number of jobs likely to be taken up by people outside ADC); 'displacement' (the level of employment likely to be lost, moved or adversely affected by the employment created as a result of the Development) and 'composite 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). These factors are collectively known as the additionality factors.

- 6.48 In this instance, it is considered that the employment provision is not of a sufficient scale for additionality factors to be relevant. The scale of floorspace is considered to be commensurate with meeting the needs of the Development without leading to any material leakage of jobs, nor displacement of any significant number of jobs from outside the Development. Therefore, additionality factors have not been assessed.

Primary Healthcare

- 6.49 General Practitioners (GP) provision has been identified within 3km of the Site as illustrated in Figure 6.2. Existing baseline conditions are assessed through reference to the National Health Service (NHS) General and Personal Medical Services statistics^{xx} which provide total patient list size for individual GP practices and the number of full time equivalent (FTE) GPs at each practice as at March 2018. The location data relating to each Practice has been sourced from NHS Business Services^{xxi}. It should be noted that a GP Practice can relate to one of more GP branches (or surgeries) operating within a single Practice group. We have therefore separately sourced the location of GP branches, and the associated Practice Group from NHS Business Services. However, the NHS only publish GP and Patient data at a Practice level, and do not publish data for individual branches.
- 6.50 To determine whether existing GP provision is under- or over-capacity, GP to patient ratios of local practices are compared to the Healthy Urban Development Unit (HUDU) standard of 1 GP to 1,800 patients.
- 6.51 Dental practice provision has also been identified within 3km of the Site through reference to the NHS Digital database of General Dental Practices as at 30 November 2018^{xxii}. Figure 6.2 illustrates those dentists selected for the assessment. It is not possible to determine the precise number of patient places available as no central census of dentists is conducted and no definitive ratio of patients per dentist exists. However, a telephone survey has been undertaken with each of the identified practices on 6 February 2019 to identify whether they are accepting new patients.

- 6.52 The number of future residents anticipated to live in the Development (as described within the assessment approach for population) is compared to the levels of capacity within the primary healthcare system to determine whether or not the existing provision assessed within the baseline, will be able to accommodate the needs of the Development. To ensure a worst-case scenario, it is assumed that all residents of the Development will be new to the area and therefore not already registered with local health practitioners.

Wider Human Health

- 6.53 A qualitative assessment has been made of the potential for the Development to lead to likely significant effects with respect to wider human health issues. Health is a multidisciplinary topic and many individual technical documents submitted in support of the planning application are relevant to health.
- 6.54 The World Health Organisation defines health as, *"a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"*^{xxiii}. For this reason, a wide-ranging assessment of health effects has been undertaken.
- 6.55 Construction phase effects of the workforce have not been assessed in detail because safe working practices would be adhered to in accordance with the requirements of the Health and Safety Executive and relevant legislation including The Construction (Design and Management) Regulations 2015^{xxiv}, which would minimise the potential for accidents and other situations with a detrimental effect on employees' health.
- 6.56 Construction and operational phase effects on nearby sensitive receptors including the local population have been assessed qualitatively, cross referencing the relevant ES chapters (including Chapter 11: Air Quality and Chapter 12: Noise and Vibration) and standalone technical assessments submitted in support of the planning application. These include the following:
- Transport Assessment;
 - Design and Access Statement; and
 - Planning Statement.
- 6.57 The conclusions of the planning documents have been used to indicate whether significant health effects would be likely, without and with mitigation in place. Professional judgment and knowledge of the baseline conditions of the local area have also been used to forecast how the health of the existing and future population / Site users may be affected by the Development.

Education

- 6.58 Primary education provision within 3km of the Site has been selected for this assessment and illustrated in Figure 6.3. All secondary schools within ADC have been assessed. Independent and Special schools have been excluded from this assessment. This represents a worst-case scenario for the assessment as it assumes that all pupils generated by the Development will enter mainstream state-run schools.
- 6.59 WSCC 'Planning School Places 2019' report^{xxv} has been used to establish the existing numbers of pupils on each individual school roll (as at October 2018) and the school capacities for the academic year 2018/19. This data has been used to determine baseline surplus or deficit school places.
- 6.60 Future primary and secondary school capacities have been informed by the Department for Education (DfE), School Place Planning Data, specifically the estimated number of primary places needed for years 2018/19 to 2022/23 and secondary places needed for years 2018/19 to 2024/2025^{xxvi}. This provides a future baseline for surplus or deficit capacities. However, capacity forecasts are only published for school planning areas and are not available for individual schools. For this reason, consideration has been given to the two planning areas in closest proximity to the Site – Barnham/Westergate Planning Area and Littlehampton Planning Area.
- 6.61 To calculate how many primary and secondary aged children are likely to be produced by the Development, child product ratios published by WSCC^{xxvii} have been utilised. Table 6.1 details the child product ratios used within this assessment.

Table 6.1: WSCC child product ratios

	Child product
Primary (aged 4 to 11 years)	25 per 100 dwellings
Secondary (aged 11 to 16 years)	18 per 100 dwellings
Secondary (aged 16 to 18 years)	4 per 100 dwellings

Source: WSCC Planning Obligations: Explaining Contribution Calculations (May 2018)

- 6.62 The assessment is quantitatively based on the level of surplus or deficit forecast school places versus the number of pupils generated by the Development. To ensure a worst-case scenario is considered, it will be assumed that all resident pupils of the Development will be new to the area and therefore not already registered at local schools.

Limitations and Assumptions

- 6.63 There are no further limitations or assumptions made other than those covered in the topic specific paragraphs above.

Determining the Significance of Effects

- 6.64 There are no technical significance criteria relating to assessment of socio-economic effects on human populations other than those that relate specifically to other technical areas (pollution, noise etc.) These are dealt with in detail, in separate ES chapters, if necessary and, where appropriate, summarised within the Population and Human Health chapter.
- 6.65 The significance of socio-economic effects is therefore assessed using professional judgement in line with the outline methodology for determining sensitivity of receptors and magnitude of impacts and significance of effects within Chapter 2 EIA Methodology.
- 6.66 Quantitative calculations have been undertaken where possible e.g. surplus or deficit of pupil places and comparative GP to patient ratios, and the level of significance determined by the effect at either local, district or regional level. Where it is not possible to measure effects on a quantitative basis, a qualitative assessment is provided. Those effects which are considered to have a minor, 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

- 6.67 The ONS, 2017 MYPE estimate that the Study Area has a population of 6,500 people, accounting for 4% of ADC's total population (158,700 people). Since 2011, the Study Area's population has increased by 9% (530 people). The increase in the Study Area population between 2011 and 2017 has been higher than the increase across ADC (6%); WSC (6%); the SE region (5%); and England (5%).
- 6.68 Table 6.2 and Figure 6.4 demonstrate that the Study Area is characterised by a relatively young, working age population in comparison to ADC and WSC. The Study Area has a larger working age population (60%) than ADC (55%) and WSC (59%). Whilst the proportion of the Study Area's population that is aged 65+ (22%) is smaller than ADC (29%) and WSC (23%), the older population in the Study Area is larger than the average for the SE region

(19%) and England (18%).

Table 6.2: Age profile by broad age group (2017)

2017 MYPE	Study Area	ADC	WSC	SE region	England
Aged 0 to 15	18%	16%	18%	19%	19%
Aged 16 to 64	60%	55%	59%	62%	63%
Aged 65+	22%	29%	23%	19%	18%

Source: ONS, 2017 MYPE. All figures have been rounded and may not sum

Population Projections – Future Baseline

- 6.69 It is anticipated that construction of the Development will commence in 2020 and be completed by 2030. The ONS, 2016-based SNPP indicate that by the year 2020 there will be 163,000 living in ADC and that by year 2030, this will have increased to 178,000 people (the SNPP are not published for geographies below local authority level). An increase of 15,000 people represents a 9% growth in population (2020-2030). In comparison, England's population is projected to increase by just 1% over the same period.
- 6.70 By 2030, 52% of ADC's total population will be aged 16-64 years (working age) which is a fall from 55% in 2017. In contrast the population aged 65+ years is projected to increase to 33% (from 29% in 2017).
- 6.71 According to the ONS, 2016-based household population projections, the average household size in ADC is currently (2018) 2.20 persons per household. By the first year of construction (2020) the average household size is projected to have fallen slightly to 2.19 persons but by the Development's year of completion (2030) is projected to have fallen to 2.08 persons per household.

Housing

- 6.72 The 2011 Census recorded approximately 66,706 households in ADC, 3% of which (2,300) are within the Study Area. Table 6.3 highlights that accommodation within the Study Area predominantly takes the form of semi-detached houses (30%) and the Study Area also has a higher proportion of terraced houses (27%) than ADC (20%) and WSC (21%). Only 9% of the Study Area's housing stock is flats and/or apartments, which is considerably lower than the proportion seen of the housing stock in ADC and WSC (each 22% respectively).
- 6.73 The Study Area has a higher proportion of owner-occupied properties (76%) than ADC (74%); WSC (71%); the SE region (68%) and England (63%). The proportion of private rented

properties is considerably lower in the Study Area (9%) in comparison to ADC, WSC, the SE region and England. However, 13% of the Study Area's housing stock is socially rented which is higher than the proportion seen in ADC (9%) but comparable to WSC (13%) and the SE region (14%).

Table 6.3: Household Accommodation Type and Tenure (2011)

Type	Study Area	ADC	WSC	SE region	England
Detached	29%	34%	30%	28%	22%
Semi-detached	30%	23%	26%	28%	31%
Terraced	27%	20%	21%	22%	25%
Flats	9%	22%	22%	21%	22%
Tenure					
Owned	76%	74%	71%	68%	63%
Shared Ownership	2%	1%	1%	1%	1%
Social Rent	13%	9%	13%	14%	18%
Private Rent	9%	15%	14%	16%	17%
Living rent free	1%	1%	1%	1%	1%

Source: ONS, 2011 Census, Tables KS401EW and KS402EW [downloaded from NOMIS 14 November 2018]. Caravans and other temporary structures are not included. All figures have been rounded and may not sum

- 6.74 The ADC Authority Monitoring Report (January 2018) establishes that there has been a shortfall in housing completions in each year between 2011/12 and 2016/17. The requirement is for a total of 5,514 additional dwellings over this six-year period. However, ADC only recorded a total of 3,663 additional dwellings. This represents a shortfall of 1,851 dwellings, equivalent to 34%.

Employment

- 6.75 In the year ending September 2018 there were 66,000 residents in ADC aged between 16 and 64 years who were classified as economically active (ONS, APS, 2018). This was equivalent to 76% which is below the average for WSC (82%), the SE region (81%) and England (79%).
- 6.76 74% of working age residents in ADC were in employment (ONS, APS, 2018), which again is below the average for WSC (80%) and the SE region (78%) but marginally higher than the average for England (75%).
- 6.77 The unemployment rate (among the population aged 16+) in ADC was 2.5% in the year to September 2018 (ONS, APS, 2018) which is lower than the average for WSC (2.9%), the SE region (3.4%) and England (4.2%). Nonetheless, even with an unemployment rate of 2.5% there were still 1,800 people unemployed in ADC in the year to September 2018.

- 6.78 In December 2018 there were 445 residents of ADC claiming JSA (DWP, 2018), of which 15 lived within the Study Area (3%). Of those claiming JSA in ADC, 345 people (77%) are seeking employment in Sales Occupations. It is also relevant to note that across the SE region there are a total of 145 residents seeking work in the Skilled Construction and Building Trades whilst claiming JSA.
- 6.79 According to the ONS, 2017 BRES, there were 2,500 employees in the Study Area which represents 5% of ADC total employees. Table 6.4 provides a breakdown of employment sectors for the Study Area, ADC, WSC, the SE region and England.

Table 6.4: Industrial structure 2017 (employees)

Industry	Study Area	ADC	WSC	SE region	England
Manufacturing	14%	6%	7%	6%	8%
Mining, quarrying & utilities	12%	1%	2%	1%	1%
Construction	10%	5%	4%	5%	5%
Business administration & support services	10%	9%	10%	9%	9%
Health	10%	15%	13%	13%	13%
Accommodation & food services	8%	11%	8%	7%	7%
Transport & storage (inc. postal)	7%	3%	7%	5%	5%
Wholesale	6%	4%	5%	5%	4%
Retail	6%	15%	11%	10%	9%
Public administration & defence	6%	3%	3%	3%	4%
Professional, scientific & technical	4%	4%	6%	8%	9%
Education	4%	9%	8%	10%	9%
Arts, entertainment, recreation & other services	3%	5%	5%	5%	5%
Property	2%	1%	2%	2%	2%
Motor trades	2%	2%	2%	2%	2%
Information & communication	2%	2%	3%	6%	4%
Agriculture, forestry & fishing	0%	3%	1%	1%	1%
Financial & insurance	0%	2%	3%	3%	4%
Total	100%	100%	100%	100%	100%

Source: ONS, 2017 BRES [downloaded from NOMIS 15 November 2018]

All figures have been rounded and may not sum

- 6.80 Table 6.4 shows that the Study Area has a higher than average number of employees in the following sectors: Manufacturing (14%); Mining, quarrying & utilities (12%); Construction (10%); Transport & Storage (7%); and Public Administration & Defence (6%).
- 6.81 The data identifies that there is a construction workforce, significant in size, already resident

within close proximity of the Site, with the number of people working in the construction industry numbering 250 in the Study Area; 2,500 in ADC and a total of 17,000 people across WSC.

- 6.82 Commuting data from the 2011 Census shows how the majority of residents in the Study Area aged 16 to 74 and in employment commute between 10km and 20km for employment, as is shown in Table 6.5 below.

Table 6.5: Distance travelled to work

Industry	Study Area	ADC	WSC	SE region	England
Less than 2km	9%	17%	18%	17%	17%
2km to less than 5km	16%	13%	15%	16%	18%
5km to less than 10km	17%	19%	13%	14%	17%
10km to less than 20km	23%	13%	14%	14%	15%
20km to less than 30km	3%	5%	6%	7%	6%
30km to less than 40km	3%	3%	3%	4%	3%
40km to less than 60km	4%	3%	5%	4%	2%
60km and over	5%	5%	4%	4%	3%
Work mainly at or from home	11%	13%	12%	12%	10%
Other	9%	10%	9%	9%	8%
Total	100%	100%	100%	100%	100%

Source: ONS, 2011 Census, Table QS702EW [downloaded from NOMIS 15 November 2018]
All figures have been rounded and may not sum.

- 6.83 The average distance travelled to work by people in the Study Area is 18.5km. This is a further distance travelled to work than the average for ADC (16.7km); WSC (16.9km), the SE region (16.6km) and England (14.9km).

Primary Healthcare

- 6.84 There are two GP facilities operating from within the Study Area and a further three GP facilities operating within a 3km radius of the Site. Figure 6.2 identifies the physical location of these GP facilities. Of the five GP facilities identified, four are GP branches and one is a GP practice. A GP practice can relate to one of more GP branches operating within a single practice group.
- 6.85 Table 6.6 presents the number of registered patients along with the number of FTE GPs in the five GP facilities located within 3km of the Site. As noted in the assessment methodology section, data is only published for GP practices. Therefore, for the four GP branches identified in the assessment, Table 6.5 presents the equivalent GP practice data: data for Meadowcroft and Flintcroft surgeries are included within The Croft Surgery (located in Eastergate outside of the 3km radius); data for 66 Clun Road is included within the Fitzalan Medical Group

(located in Littlehampton outside of the 3km radius); and data for Elmer Road is included within the Avisford Medical Group.

Table 6.6: Existing GP provision and capacities (March 2018)

Map No.	Surgery Name	GPs (FTE)	Patients	Ratio (Patients to 1 GP)	Surplus capacity (patients)
1	Avisford Medical Group	4.12	10,418	2,529	0
1a	Elmer Road	-	-	-	-
	The Croft Surgery	4.58	11,450	2,501	0
2a	Meadowcroft, Bilsham Road	-	-	-	-
2b	Flintcroft Surgery	-	-	-	-
	Fitzalan Medical Group	7.94	16,920	2,131	0
3a	66 Clun Road	-	-	-	-
	Total	16.64	38,788	2,331	0

Source: NHS Digital (March 2018) General and Personal Medical Services

- 6.86 In combination, the five GP surgeries (along with the two associated GP practices) are operating above the HUDU standard with an average of 1 GP to 2,331 patients, indicating no spare capacity within the existing GP provision.
- 6.87 A total of two dental practices have been identified within 3km of the Site. Table 6.7 lists these two dental practices and Figure 6.2 identifies the physical location. Figure 6.2 identifies that there are a number of additional practices located just outside the 3km radius.

Table 6.7: Existing dental practice provision within 3km of the Site

Map No.	Practice Name	Postcode	Accepting New Patients?	
1	Walberton Dental Practice	BN18 0PR	Yes	NHS only
2	Bupa Dental Care, Wick	BN17 7JJ	Yes	Both NHS and Private

Source: NHS Choices and telephone survey dated 6 February 2019

- 6.88 Both of the dental practices are accepting new NHS patients and the Bupa Dental Care practice is also accepting new patients on a private basis.

Wider Human Health

- 6.89 A review of the Health Profile for the ADC, available from Public Health England^{xxviii}, has been undertaken as part of this assessment. The Health Profile includes information on various health features and provides a comparison with data for the South East and England. Table 6.8 below presents the data recorded by Public Health England for ADC.

Table 6.8: Summary of the Health Profile for ADC

Recorded Health Features for ADC	Comparison to Benchmark (South East)	Comparison to Benchmark (England)	Recent Trend
Employment rate (aged 16-64)	Similar		Decreasing/Getting worse
GCSEs achieved	Worse		Could not be calculated
New cases of tuberculosis	Better		Could not be calculated
Smoking status at time of delivery	Worse	Similar	No Significant Change
Breastfeeding Initiation	Worse	Similar	Decreasing/Getting worse
New Sexually transmitted infections	Better		No Significant Change
Under 18 conceptions	Similar	Better	Decreasing/Getting better
Children in low income families (under 16s)	Similar	Better	Decreasing/Getting better
Obese children (aged 10-11)	Worse	Similar	Increasing/Getting worse
Hospital stays for self-harm	Worse		Could not be calculated
Hospital stays for alcohol related harm	Worse	Similar	Could not be calculated
Hospital stays for alcohol related harm (under 18s)	Similar		Could not be calculated
Hip fractures in older people (aged 65+)	Worse		Could not be calculated
Infant mortality rate	Similar		Could not be calculated
Killed and seriously injured on roads	Similar		Could not be calculated
Under 75 mortality rate: cardiovascular	Worse	Similar	Could not be calculated
Under 75 mortality rate: cancer	Worse	Similar	Could not be calculated
Under 75 mortality rate: all causes	Worse	Similar	Could not be calculated
Suicide rate	Similar		Could not be calculated
Excess winter deaths	Similar		Could not be calculated
Life expectancy at birth: male	Worse	Similar	Could not be calculated
Life expectancy at birth: female	Worse	Similar	Could not be calculated
Dementia diagnoses (aged 65+)	Similar		Could not be calculated
Excess weight in adults (aged 18+)	Similar		Could not be calculated
Physically active adults (aged 19+)	Similar		Could not be calculated

Recorded Health Features for ADC	Comparison to Benchmark (South East)	Comparison to Benchmark (England)	Recent Trend
Smoking prevalence in adults (aged 18+)	Similar		Could not be calculated
Smoking prevalence: routine and manual occupations	Similar		Could not be calculated

- 6.90 The review identifies that the health features of ADC are generally worse or similar to those recorded for the South East Region and better or similar for England. The specific health features of GCSEs achieved, hospital stays for self-harm and hip fractures in older peoples (aged 65+) are worse for ADC in comparison to the South East Region and England.

Education

- 6.91 A total of seven primary schools have been identified within a 3km radius of the Site. These are detailed in Table 6.9 along with the number of pupils on roll as at October 2018 and capacity figures for the academic year 2018/19 as published by WSCC. Figure 6.3 identifies the physical location of these primary schools.

Table 6.9: Existing primary school provision and capacities

Map No.	Name	School Planning Area	Pupils on roll	Capacity	Surplus/ deficit (pupils)
1	Yapton CE Primary School	Barnham/ Westergate	278	315	37
2	St Mary's CofE Primary School	Littlehampton	101	105	4
3	Walberton and Binsted CofE Primary School	Barnham/ Westergate	200	210	10
4	Lyminster Primary School	Littlehampton	213	210	-3
5	River Beach Primary School	Littlehampton	638	647	9
6	White Meadows Primary Academy	Littlehampton	590	635	45
7	St Catherine's Catholic Primary School	Littlehampton	244	240	-4
	Total		2,264	2,362	98

Source: WSCC Planning School Places 2019

- 6.92 Of the seven primary schools assessed, two are currently over-capacity and five are under-capacity. Combined, there is a small surplus of primary school places available (98 places). The primary schools located closest to the Site currently have surplus capacity: Yapton CE Primary School (surplus of 37 places); St Mary's CofE Primary School (surplus of 4 places); and Walberton and Binsted CofE Primary school (surplus of 10 places).

- 6.93 However, WSCC consider a school planning area at capacity if it is operating at 95% capacity. The seven schools identified for assessment are located within two different Primary Planning Areas - Barnham/Westergate and Littlehampton. In total, nine schools are located within the Littlehampton Primary Planning Area and combined they are operating at 97% capacity, indicating there is no spare capacity. A total of six primary schools are located within the Barnham/Westergate Primary Planning Area and combined they are operating at 90% capacity, indicating spare capacity.
- 6.94 Future baseline conditions with regards to primary school provision have been informed through reference to the forecast number of primary places needed for years 2018/19 to 2022/23 as published by the DfE as part of the School Place Planning underlying data. Forecasts are not available for individual schools but are published by school planning area. By 2022/23, the surplus capacities currently available will have turned into a deficit with the Littlehampton Primary Planning Area estimated to have a deficit of 55 places and Barnham/Westergate Primary Planning Area estimated to have a deficit of 180 places.
- 6.95 There are no secondary schools located within a 3km radius of the Site. The three closest secondary schools to the Site are located within West Barnham, Littlehampton and Westergate (refer to Figure 6.3). However, for the purpose of this assessment, all secondary schools within the ADC area (a total of six) have been assessed. Table 6.10 details these schools along with the number of pupils on roll as at October 2018 and capacity figures for the academic year 2017/18.

Table 6.10: Existing secondary school provision and capacities

Map No.	Name	Pupils on roll	Capacity	Surplus/deficit (pupils)
1	Ormiston Six Villages Academy	473	823	350
2	The Littlehampton Academy	1,383	1,900	517
3	St Philip Howard Catholic School	1,037	1,146	109
	Felpham Community College	1,337	1,358	21
	The Regis School	1,536	1,800	264
	The Angmering School	1,371	1,571	200
	Total	7,137	8,598	1,461

Source: WSCC Planning School Places 2019

- 6.96 There is existing capacity of 1,461 places within secondary school provision across ADC, with 976 of those surplus places available in the three secondary schools within closest proximity to the Site.
- 6.97 Future baseline conditions with regards to secondary school provision have been informed through reference to the forecast number of secondary places needed for years 2018/19 to

2024/25 as published by the DfE as part of the School Place Planning underlying data. Consideration has been given to the combined forecast for the four school planning areas covering ADC (Angmering, Barnham/Westergate, Bognor Regis/Felpham and Littlehampton). By 2024/25, the existing surplus of secondary places across ADC is forecast to turn to a deficit of 107 secondary school places.

Likely Significant Effects

Construction Phase

Effects on Population and Housing

- 6.98 Baseline research established that a construction labour force of significant size is already resident within ADC, totalling 2,500 workers, of which 250 reside within the Study Area. As construction projects are temporary in nature, requiring a continual flow of new projects to sustain the industry's workforce, it is anticipated that the Development will provide work for existing resident workers and not require the inward migration of additional labour on a long-term or permanent basis, resulting in no increase to the resident population. Therefore, there will be a negligible effect on population and housing during the construction phase of the Development, as any additional labour, commuting to the Site, will utilise community facilities and services located closer to their own homes.

Effects on Employment

- 6.99 The construction phase of the Development will generate jobs across all construction disciplines from ground workers to construction management.
- 6.100 Based on calculations produced through use of the CITB LFT, which are in turn based on the floorspace schedules (detailed in Chapter 3: Site and Development Description) and a build period of 2020 to 2030 (equating to 120 months), it is anticipated that the Development is likely to produce employment for an average of 396 (FTE) workers per month. This average is considered to provide a conservative estimate as it will be further enhanced by workers who will construct open space and other landscaped areas not included within the LFT calculations.
- 6.101 In addition to jobs created as a direct effect of the construction and management of the Development, further indirect employment and economic benefit will be experienced as a result of the spin-off and multiplier effects. These include supply chain expenditure from potential purchase of building supplied to local provision of meals, refreshments, fuel and

potential temporary accommodation (e.g. Bed & Breakfast) for the construction workforce.

- 6.102 Overall the Development is considered to have a temporary, moderate beneficial effect on employment during the construction phase, providing employment for workers in ADC and WSC.

Wider Human Health Effects

- 6.103 Assessments of effects of the Development on air quality and noise, all of which can have a bearing on health, have been included in this ES. Suitable mitigation measures will be implemented through the Construction Environmental Management Plan (CEMP), which would be secured by a planning condition and be in place throughout the construction phase to minimise effects from construction noise and dust on nearby residents and those living in the first phases of development at the Site. Accordingly, no likely significant effects have been identified at the construction stage on wider health effects.

Operational Phase

Effects on Population and Housing

- 6.104 The completed Development includes provision for 1,500 residential units and a 60-bed care home (see Chapter 3 for further information on the Development).
- 6.105 Baseline research has shown that by the Development's anticipated completion year of 2030, the average household size for ADC will be 2.08 persons per household. Applied to the 1,500 units in the residential zone and local centre, it is assumed that the 1,500 units are likely to provide homes for 3,120 people ($1,500 \times 2.08$). A further 60 people are expected to reside in the care home (assuming 1-bed accommodates 1 person). In total therefore, using this methodology, the Development could provide homes for up to 3,180 people.
- 6.106 Alternatively, applying WSCC occupancy rates to the Development's accommodation mix for the 1,500 residential units, results in a total population yield of 3,600 people. Again, assuming a further 60 people can be expected to reside in the care home (assuming 1-bed accommodates 1 person), the Development, using this methodology, could provide homes for up to 3,660 people.
- 6.107 In total therefore, the Development could be expected to accommodate a population of between 3,180 and 3,660 people.

- 6.108 The 2016-based SNPP show that ADC can expect an increase in population of 15,000 between 2020 and 2030, so the proposed housing, a proportion of which will be affordable, will help to meet the needs of the growing population.
- 6.109 Baseline evidence identified an existing requirement for 919 dwelling completions per year in ADC between 2011 and 2017. However, over this period, there has only been an average of 611 dwelling completions per year in ADC. This has resulted in a shortfall of housing delivery over recent years.
- 6.110 The 1,500 units provided by the Development will contribute to ADC's housing requirement which is equivalent to 1,000 net additional homes per annum (2011-2031) as set out in Policy H SP1 of the adopted Arun Local Plan 2011-2031 (July 2018). Furthermore, the delivery of 1,500 units will meet the requirement of Policy H SP2c (SD8) which requires the provision of at least 1,500 units at Ford as part of the Strategic Allocation.
- 6.111 The ability of the Development to: contribute to ADC's future housing requirement; meet the requirement of Policy H SP2c (SD8); and provide new homes for between 3,180 and 3,660 people, is considered to be a permanent, moderate beneficial effect on population and housing.

Effects on Local Expenditure

- 6.112 The introduction of 1,500 additional households in the Study Area can be expected to increase expenditure on local convenience and comparison goods. Future residents are likely to spend within the Study Area, ADC and in the wider region. Total increases may vary if some people move house from within ADC but it is not possible to estimate this at this stage. Overall, it is considered that the Development will have a moderate beneficial effect on local expenditure.

Effects on Employment

- 6.113 The Development meets the requirement of ADC Local Plan Policy SD8 by incorporating the provision of employment floorspace (Use Class B1) totalling 9,000 sqm which has been assumed to be office floorspace, retail floorspace (Use Classes A1 to A5) totalling up to 900 sqm, and community/leisure floorspace (Use Classes D1 and D2) totalling 1,450 sqm. In addition, the Development incorporates the provision of a 2-Form Entry (FE) primary school and 60-bed care home. The Development will therefore create employment opportunities across a range of occupations and skill levels.
- 6.114 Dependent on the final design of the Development, a variety of full-time or part-time jobs will

be generated within the offices (B1), shops, cafes and restaurants (A1-A5) to be provided on-site. Based on the current HCA Employment Densities Guide, calculations within Table 6.11 establish that a further 588 FTE jobs could be generated by the Development.

Table 6.11: Potential operational employment generation from the Development's office and retail floorspace

Potential Use	Use Class	Sqm per FTE worker	Floorspace provision (sqm)		Jobs (FTE)
			GIA	NIA**	
Office	B1	12	7,200***	6,480	540
Foodstore	A1-A5	17*	600	540	32
Supporting Retail	A1-A5	17*	300	270	16
Total retail					588

Source: HCA, Employment Densities Guide, 3rd edition, 2015

*Mid-point in range for Use Classes A1-A3 based on high street retail, foodstore retail and restaurants and cafes

**NIA for retail units assumed to be 90% of the GIA as per the guidance in the HCA, Employment Densities Guide, 3rd Edition, 2015

*** 9,000 sqm Use Class B1 was taken to be Gross External Area (GEA) and therefore GIA has been calculated by reducing the GEA figure by 20%

- 6.115 With regards to employment generated from the community/leisure floorspace, the HCA Employment Densities Guide provides employment densities for Use Class D2 but not Use Class D1. The densities for Use Class D2 range between 30 and 300 sqm per FTE worker. Provision of 1,450 sqm of D2 floorspace could therefore generate between 10 and 48 FTE workers. Employment derived from uses such as the proposed health centre (D1), nursery (D1), community building (D1), primary school (D1) have been estimated based on comparative examples and professional experience.
- 6.116 The proposed health centre will provide a range of employment opportunities. The nature of work provided at such a facility will provide the flexibility of part-time, locum or job-sharing work opportunities. The exact number of jobs will be dependent on final design/requirements to be agreed with the local Clinical Commissioning Group (CCG). However, as an example, a single GP surgery may create in the region of five jobs (one FTE GP; one Nurse; one Practice Manager and 2 Reception/Clerical staff). A two GP surgery may create in the region of seven jobs (two FTE GPs; 2 Nurses; one Practice Manager; and two Reception/Clerical staff).
- 6.117 The proposed nursery (400 sqm GIA/320 sqm NIA) will provide part-time and full-time job opportunities. The number of jobs will be dependent on the number of children the nursery accommodates. Based on the maximum NIA for the nursery (320 sqm) the nursery could accommodate approximately 90 children based on the VOA space requirements for the provision of childcare. However, calculations should be based upon the net useable areas of the rooms used by the children (therefore not including storage areas, thoroughfares, dedicated staff areas, cloakrooms, utility rooms, kitchens and toilets) and therefore the

number of children the nursery can accommodate is expected to be lower. However, assuming 90 children, the number of jobs generated by the nursery could be in the region of between 11 (based on the ratio of 1 member of staff for every 8 children aged 3-5 years) and 30 (based on the ratio of 1 member of staff for every 3 children aged 0-2 years).

- 6.118 Employment opportunities arising from the proposed community building will depend on the final design of the building. Nonetheless, the number of jobs arising from the community building is anticipated to be limited, possibly generating a couple of part-time jobs in respect of the day-to-day management of the building.
- 6.119 The Community/Leisure floorspace provided by the Development (1,450 sqm) could therefore generate in the region of between 10 and 48 jobs.
- 6.120 In addition, based on professional judgement and experience of similar schemes, it is anticipated that a 2FE primary school will generate a mixture of full-time (term-time) and part-time employment in the region of 14 teachers (two per year from Reception to Year 6), 14 teaching assistants, one Head, two secretarial staff, one site manager (caretaker) and two cleaners, totalling a minimum of 34 staff. Should the school include on-site catering facilities then approximately 10 part-time staff (a mixture of catering and mid-day assistants) will be required. In summary, the school could produce approximately 34 to 44 jobs.
- 6.121 The HCA Employment Densities Guide does not provide an employment density for Use Class C2. The provision of a Care Home (C2) has the potential to generate additional full and part-time employment. Staffing levels for care facilities tend to differ depending on the level or type of care being offered and therefore the exact number of jobs created by the Development's Care Home will be dependent on the final design/requirements. However, based on professional judgement and experience of similar schemes a 60-bed Care Home could be expected to generate employment in the region of 30 jobs.
- 6.122 The Development is therefore expected to generate in the region of between 662 and 710 net additional jobs.
- 6.123 Baseline evidence established that there were 1,800 unemployed people in ADC in the year ending September 2018, with 345 ADC residents claiming JSA and seeking work in sales occupations. It is therefore considered that the level of employment generated by the Development will have a permanent, moderate beneficial effect on employment.

Effects on Primary Healthcare

- 6.124 Baseline evidence identified that there are two GP surgeries operating within the Study Area and a further three GP surgeries operating within a 3km radius of the Site. In combination, the five GP surgeries are operating significantly above the HUDU standard of 1 GP to 1,800 patients, with an average of 1 GP to 2,331 patients.
- 6.125 It is therefore considered that there is no spare capacity within the existing GP provision to accommodate the additional demand arising from the Development.
- 6.126 However, a new healthcare facility is proposed as part of the Development in accordance with ADC Local Plan Policy SD8. Exact details of the healthcare provision are not yet known. This assessment has identified additional demand of between 3,180 and 3,660 people arising from the Development, assuming a worst-case scenario (that all additional demand will be new to the area and not already registered with an existing GP). Applying the HUDU standard of 1 GP for every 1,800 patients, it is assumed that the additional 3,180 to 3,660 people arising from the Development will generate a need for between 1.8 and 2.0 GPs.
- 6.127 The 550 sqm healthcare facility provided by the Development will provide the space to accommodate 2 or 3 GP rooms, which could be occupied by a permanent GP or a visiting GP. Further discussion should take place with the Clinical Commissioning Group (CCG) to establish the specifications of the new healthcare facility being provided by the Development.
- 6.128 Two dental practices have been identified within 3km of the Site which offer a range of NHS and private treatments. Both of the dental practices are accepting new patients on an NHS basis and the Bupa Dental Care practice in Wick is also accepting private patients. On this basis it is considered that there is surplus capacity within the existing dental provision to accommodate the additional demand arising from the Development.
- 6.129 Capacity within existing dental provision and the healthcare facility provided by the Development can be expected to meet the additional demand arising from the Development. As such, the Development is considered to have a minor beneficial effect on primary healthcare.

Effects on Wider Human Health

- 6.130 The Development has been designed to include areas of green open space: the design objectives for the Development promote active lifestyles, through the provision of amenity and recreational open space on the Site, which is well connected, as well as formal sports

provision. These are important for physical and mental wellbeing. Open spaces within the Development will be accessible to neighbouring residents and the links between the Site and surroundings will allow new and existing residents to integrate and make for an inclusive community.

- 6.131 The Development will also include the provision of a series of footpaths and cycleways to improve linkages for pedestrians and cyclists through the Site. The improved cycle access connections and cycle parking spaces would have wider human health benefits, increasing the numbers cyclists in the area and ensuring safe cycling.
- 6.132 As well as green space provision and improved access and linkages for pedestrians and cycles using the Development, the provision of residential dwellings and community facilities as part of the Development (refer to ES chapter 3) would also have beneficial effects on wider human health, improving the health profile of the area. Consideration of the effects of the Development on human receptors in terms of Air and Noise and Vibration have also been considered as part of the ES and are set out in chapters 11 (Air Quality) and chapter 12 (Noise and Vibration).
- 6.133 On the basis of the above, overall the wider health effects are considered to be permanent, minor beneficial as a result of the Development.

Effects on Education

- 6.134 Applying the WSCC Child Product Ratios to the 1,500 residential units proposed by the Development, it is expected that the Development could generate a need for up to:
- 375 primary school places;
 - 270 secondary school places (aged 11 to 16); and
 - 60 sixth form places (aged 16 to 18 years).
- 6.135 These figures provide a worst-case assumption that all new resident children will not already be attending a local school and will therefore require a school place.
- 6.136 Baseline evidence identified seven primary schools located within 3km of the Site, which combined have a small surplus of places currently available, totalling 98 places. The primary schools located closest to the Development currently have surplus capacity: Yapton CE Primary school has a surplus of 37 places; St Mary's CofE Primary school has a surplus of 4 places; and Walberton and Binsted CofE Primary school has a surplus of 10 places.

- 6.137 Reference to school capacity forecasts for 2018/19 to 2022/23 published by the DfE for school planning areas only (not available for individual schools) identifies a deficit of primary school places is forecast to exist in 2022/23 in the Barnham/Westergate primary Planning Area (equating to 180 places) and within the Littlehampton primary Planning Area (a deficit of 55 places).
- 6.138 The additional demand arising from the Development for 375 primary school places will not be met within the existing primary school provision. However, a new 2 FE primary school is proposed as part of the Development in accordance with Policy SD8 of the adopted Arun Local Plan. A 2 FE primary school will have the capacity to accommodate 420 primary pupils, which will meet the demand for primary school places arising from the Development and the wider area and for this reason the Development is considered to have a minor beneficial effect on primary education.
- 6.139 Baseline evidence identified that there is existing capacity of 1,461 secondary school places within all secondary schools located within ADC, with 976 of those places available in the three secondary schools within closest proximity to the Development. However, reference to school capacity forecasts for 2018/19 to 2024/25 published by the DfE, identifies that the existing surplus of secondary school places in ADC is forecast to turn to a deficit of 107 secondary places by 2024/25.
- 6.140 The additional demand for 330 secondary school places (including sixth form) could currently be met within the existing secondary school provision, although capacity forecasts indicate that this surplus will turn to a deficit within the next 7-years.
- 6.141 However, ADC have identified the need for a new secondary school within the District to meet the need for new secondary school places arising from the cumulative impact of development across the District. It has been identified that the secondary school should be located within the Barnham/Westergate school planning area given the strategic allocations for development at Barnham, Eastergate and Westergate (BEW), Ford, Fontwell and Yapton. Furthermore, the current recommendation presented to council members on the 27 February 2019 is that the secondary school should be located adjacent to the western edge of the Site.
- 6.142 Without the delivery of a new Council-provided secondary school, the Development is considered to have a minor adverse effect on secondary education for which financial mitigation may be required. With the delivery of a new secondary school, the Development is considered to have a negligible effect on secondary education but there may still be an expectation to provide a financial contribution to deliver the school as the need for the

secondary school has been identified by ADC as a result of the cumulative impact of development across the District, including the Development (at Ford).

Mitigation Measures

Construction Phase

- 6.143 No mitigation measures are required during the construction phase as no adverse socio-economic effects are expected on population, housing or employment. The Development has been identified as having a temporary moderate beneficial effect on employment at borough and county level.

Completed Development

Population and Housing

- 6.144 No mitigation measures are required for population and housing as the effects have been assessed as having a permanent, moderate beneficial effect.

Local Expenditure

- 6.145 No mitigation measures are required for local expenditure as the effects will be permanent and of moderate beneficial significance.

Employment

- 6.146 No mitigation measures are required as the Development will have a permanent, moderate beneficial effect on employment.

Primary Healthcare

- 6.147 The Development has been identified as having a minor beneficial effect on primary healthcare for which no mitigation is required. However, discussions with the local CCG should take place to establish the specification of the healthcare facility being provided by the Development to ensure it meets local requirements.

Wider Health Effects

- 6.148 The wider health effects of the Development once complete and operational are considered to not require any form of mitigation as the Development design has taken wider health considerations into account through the design process. Active lifestyles have been promoted as part of the design objectives for the Development, including through the green space provision and improved access and linkages for pedestrians and cycles using the Development. Wider human health effects have also been a consideration in the provision and design of the residential dwellings and community facilities included as part of the Development.

Education

- 6.149 The Development is considered to have a minor beneficial effect on primary education due to the provision of a 2 FE primary school as part of the Development and therefore no mitigation for primary education is required.
- 6.150 Due to a forecast deficit in secondary school places, the Development is considered to have a minor adverse effect on secondary education for which financial mitigation may be required, if no new secondary school is delivered. However, if a new secondary school is delivered, the Development is considered to have a negligible effect on secondary education for which mitigation may still be required, in the form of financial contributions, to contribute towards the delivery of the secondary school - the need for which has been identified by ADC as a result of the cumulative impact of development across the District.

Residual Effects

Construction

- 6.151 This assessment has identified that the Development is not expected to result in any adverse effect during the construction phase; the residual effect on population and housing will be negligible and the effect on employment demonstrates moderate to minor benefits at the borough and county level.

Completed Development

- 6.152 Once the Development has reached completion, there will be moderate beneficial residual effects on population and housing, local expenditure and employment; minor beneficial effects on primary healthcare, primary education and wider health effects; and a minor adverse effect on secondary education until a secondary school is delivered, leading to a negligible residual

effect on secondary education upon delivery of a Council-provided secondary school.

Cumulative Effects

- 6.153 Consideration has been given to the cumulative schemes described within Chapter 2: EIA Methodology for the potential to have likely significant cumulative effects on the environment when combined with the Development.
- 6.154 Table 6.12 provides a high-level summary of the main features of each cumulative scheme with details obtained from the respective planning application supporting documentation, publicly available via the ADC online planning application search facility.

Table 6.12: Cumulative Schemes

Scheme	Ref	Units	Facilities	Net new Jobs
The Development		1,500	Employment, local centre incl. retail, commercial, community facilities, primary school, nursery, a care/retirement home, healthcare facilities & public open space	-662 - 710
Land to the south of Ford Lane East of North End Road, Yapton	Y/80/16/OUT (At Appeal)	100	Public open space & landscaping	-
Land off Burndell Road, Yapton	Y/19/16/OUT	108	Public open space	-
Land at Bilsham Road, Yapton	Y/91/17/OUT	250	Public open space, ancillary works and associated infrastructure	-
Land east of Drove Lane, Yapton	Y/92/17/OUT	300	Link road, surface drainage, open space and landscaping.	-
Bonhams Field Main Road Yapton	Y/1/17/OUT	56	Associated open space and creation of new access.	-
Land at Stakers Farm North End Road Yapton	Y/44/17/OUT	70	Public open space & associated landscaping.	-
Clays Farm North End Road Yapton	Y/62/18/OUT	33	Access, landscaping & associated works.	-
Land North of Yapton C of E Primary School North End Road, Yapton	Y/88/18/OUT	38	-	-
Land at Street Buildings North End Road Yapton BN18 0DT	Y/49/17/OUT	45	Landscaped open space	-
Land to the South of Ford Lane, Ford	F/4/18/PL	-	Salt storage building, office building, parking & turning area & open storage areas for highways maintenance depot.	Existing - 32 Proposed - 38 Additional 6 (Ref Planning Application Form)
Land at Wicks Farm, Ford Lane, Ford	F/18/17/WS	-	Proposed installation of a digestate lagoon	-
Land south of Burndell Road, Yapton	F/7/15/OUT	45		

Scheme	Ref	Units	Facilities	Net new Jobs
Arun DC Secondary School Site	-		10 FE secondary school	-
The Ford Market Application	-	-	Reconfiguration of Ford Market including revised market access, new vehicular parking and hard standing and associated infrastructure, landscape, ancillary and site preparation works	-
Land at Northwood Farm, Burndell Road, Yapton	CM/6/18/PL	-	Change of use to develop a concrete batching plant, with associated infrastructure, site offices & parking	6
Waste Treatment Facility, Circular Technology Park, Ford	WSCC/027/18/F	-	Proposed new access road	-
Total	-	2,845	-	674 – 722*

Source: ADC online planning application search facility

*The range of new jobs is a minimum as not all of the schemes have identified new jobs figures.

Effects on Population and Housing

- 6.155 Cumulative effects will result in the delivery of an additional (approximate) 2,845 residential dwellings. This will make a notable contribution to the increased housing requirement in ADC and is considered to be a permanent, moderate beneficial effect on population and housing.

Effects on Local Expenditure

- 6.156 The creation of an additional (approximate) 2,845 homes will increase household expenditure to a significant degree. It is, therefore, considered that there will be a permanent, moderate beneficial effect on local expenditure.

Effects on Employment

- 6.157 Most of the cumulative schemes do not make provision for additional jobs, or have simply not provided details of the number of jobs likely to be generated. Of those that have, it is likely that the increase in employment opportunities will be in excess of between 674 and 722 jobs. It is considered that there will be a permanent, moderate beneficial cumulative effect on employment.

Effects on Primary Healthcare

- 6.146 Baseline evidence has identified that capacity within existing dental provision and the healthcare facility provided by the Development can be expected to meet the additional

demand arising from the Development. However, on the basis that no further healthcare provision appears to be offered as part of the cumulative schemes in Table 6.12, it seems likely that there would be a cumulative moderate to minor adverse effect on healthcare provision. This would need to be discussed on a scheme basis with the ADC, with an expectation that mitigation will be provided in the form of CIL payments.

Effects on Education

- 6.158 As noted earlier, a 2 FE primary school proposed as part of the Development will have the capacity to meet the demand for primary school places arising from the Development. For this reason, the Development is considered to have a minor beneficial effect on primary education. In terms of the cumulative schemes, which collectively provide for 2,845 dwellings (including the Development), it is understood that no further primary schools are likely to be provided. Therefore, the expectation is that there would be a cumulative moderate to minor adverse effect on primary school infrastructure which would be discussed on a scheme basis with ADC, with an expectation that mitigation will be provided in the form of a financial contribution.
- 6.159 The Baseline assessment noted that additional demand for 330 secondary school places (including sixth form) from the Development will not be met within the existing secondary school provision. However, ADC have identified the need for a new secondary school within the District to meet the need for new secondary school places arising from the cumulative impact of development across the District, including development at Ford. As indicated in Table 6.12, there are proposals for a new 10 FE secondary school in ADC. The current recommendation is for the secondary school to be located adjacent to the western boundary of the Development. This would provide more than sufficient capacity to meet the collective needs of the Development and the cumulative schemes. The cumulative schemes are therefore considered to have a minor to moderate beneficial effect on secondary education.

Summary

- 6.160 An assessment has been made of the likely significant effects of the Development on the environment with respect to socio-economic issues. The assessment has considered construction phase employment effects; together with operational effects on population and housing; local expenditure; employment, demand for primary healthcare and wider human health effects and demand on primary and secondary education provision. The baseline conditions have been established using published statistics and a targeted telephone survey.

- 6.161 The Development proposes up to 1,500 residential units that meets the requirement of ADC Local Plan Policy SD8. Furthermore, the provision of 1,500 units will contribute to ADC's housing requirement, which will help address the shortfall experienced over recent years. Between 2020 and 2030 ADC is projected to see an increase of 15,000 people. The 1,500 residential units could provide homes for between 3,180 and 3,660 people, meeting the needs of ADC's growing population. It is therefore considered that the Development will have a permanent, moderate beneficial effect on population and housing.
- 6.162 The new households will generate a significant growth in the level of household expenditure in the local area which will have a moderate beneficial effect on the local economy.
- 6.163 Construction of the Development is likely to produce employment for an average of 396 FTE workers per month, over a 120-month period, providing a temporary, moderate beneficial effect on employment. However, a permanent, moderate beneficial effect on employment is identified as a result of between 662 and 710 net additional jobs created by the Development's provision of office floorspace, retail floorspace, community/leisure floorspace (including a health centre and nursery), a 2FE primary school and 60-bed care home.
- 6.164 There is no spare capacity within the existing GP provision to accommodate the additional demand arising from the Development. This assessment has identified a need for between 1.8 and 2.0 additional GPs. However, the provision of a healthcare facility as part of the Development will meet the needs arising from the Development and wider area and therefore the Development is considered to have a minor beneficial effect on primary healthcare.
- 6.165 The wider human health effects of the Development are taken into consideration through the Development design and are considered to be negligible to minor beneficial effects.
- 6.166 There is currently a small surplus of primary school places available within proximity to the Site. However, the surplus available is not sufficient to meet the need for 375 additional primary school places arising from the Development. However, the 2FE primary school being provided as part of the Development is sufficient to meet the needs arising from the Development and the wider area. Therefore, the Development is considered to have a minor beneficial effect on primary education.
- 6.167 There is currently a significant surplus of secondary pupil places in proximity to the Site. However, this surplus is forecast to turn into a deficit in the coming years which will not accommodate the need for 330 secondary places (including 6th Form) arising from the Development. For this reason, the Development is considered to have a minor adverse effect on secondary education until the delivery of the Council-provided secondary school which is

being delivered to meet the needs arising from cumulative development across ADC, including development at Ford. Once the secondary school is delivered, it is considered that the Development will have a negligible effect on secondary education.

6.168 A cumulative assessment of the Development alongside other schemes for which a planning application has been submitted, has identified beneficial effects on population and housing, local expenditure and employment. However, adverse effects on healthcare and education have been identified, which each development would need to mitigate in consultation with the Council and CCG. However, it is noted that ADC have identified the need for a new secondary school to meet the need for new secondary school places arising from the cumulative impact of development.

6.169 Table 6.13 contains a summary of the likely significant effects of the Development.

Table 6.13: Table of Significance – Population & 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	D	L	
Construction											
Effects on Population and Housing	Temporary	Negligible	None required					*	*	*	Negligible
Effects on Employment	Temporary	Moderate Beneficial	None required						*	*	Moderate Beneficial
Completed Development											
Effects on Population and Housing	Permanent	Moderate Beneficial	None required						*	*	Moderate Beneficial
Effects on Local Expenditure	Permanent	Moderate Beneficial	None required						*	*	Moderate Beneficial
Effects on Employment	Permanent	Moderate Beneficial	None required						*	*	Moderate Beneficial
Effects on Primary Healthcare	Permanent	Minor Beneficial	None required						*	*	Minor Beneficial
Effects on Wider Human Health	Permanent	Minor Beneficial	No mitigation required as all measures designed into the detail of the Development						*	*	Minor Beneficial
Effects on Primary Education	Permanent	Minor Beneficial	None required						*	*	Minor Beneficial
Effects on Secondary Education	Permanent	Minor adverse until the secondary school is delivered by the Council, leading to a negligible effect	None required						*	*	Negligible once the additional secondary school is delivered
Cumulative Effects											

Effects on Population and Housing	Permanent	Moderate Beneficial	None require							*	*	Moderate Beneficial
Effects on Local Expenditure	Permanent	Moderate Beneficial	None required							*	*	Moderate Beneficial
Effects on Employment	Permanent	Moderate Beneficial	None required							*	*	Moderate Beneficial
Effects on Primary Healthcare	Permanent	Moderate-Minor Adverse	Discussion with ADC/CCG. Possible financial contribution.							*	*	Negligible
Effects on Primary Education	Permanent	Moderate-Minor Adverse	Discussion with ADC. Possible financial contribution.							*	*	Negligible
Effects on Secondary Education	Permanent	Minor-Moderate Beneficial	None required							*	*	Minor-Moderate Beneficial

*** Geographical Level of Importance**

I = International; UK = United Kingdom; E = England; R = Regional; C = County; D = District; L = Local

REFERENCES

- ⁱ MHCLG (February 2019) National Planning Policy Framework
- ⁱⁱ MHCLG (various) Planning Practice Guide
- ⁱⁱⁱ Arun District Council - Adoption Arun Local Plan 2011-2031 (July 2018)
- ^{iv} Arun District Council - Arun Local Plan Secondary Scholl Site Identification and selection (August 2017)
- ^v Arun District Council - Ford Parish Council Neighbourhood Development Plan (2017-2031)
- ^{vi} ONS, 2011 Census, Table KS102EW [downloaded from NOMIS on 14 November 2018]
- ^{vii} ONS, 2017 Mid Year Population Estimates (Local authority level and higher published 28 June 2018, ward level published 25 October 2018)
- ^{viii} ONS, 2016-based Sub National Population Projections (published 24 May 2018)
- ^{ix} ONS, 2016-based household projections (published 20 September 2018)
- ^x West Sussex County Council (May 2018) WSCC Planning Obligations: Explaining Contribution Calculations
- ^{xi} ONS, 2011 Census, Tables KS401EW and KS402EW [downloaded from NOMIS 14 November 2018]
- ^{xii} Arun District Council (January 2018) Authority Monitoring Report 1st April 2016-31st March 2017
- ^{xiii} ONS, Annual Population Survey, year ending September 2018 (downloaded from NOMIS on 05 February 2019)
- ^{xiv} ONS, Business Register Employment Survey 2017 (downloaded from NOMIS on 15 November 2018)
- ^{xv} ONS, 2011 Census Table QS702EW (downloaded from NOMIS on 15 November 2018)
- ^{xvi} CITB, Labour Forecasting Tool
- ^{xvii} HCA, Employment Densities Guide, 3rd Edition, November 2015
- ^{xviii} VOA, 3 August 2018, Rating Manual Section 6 part 3: valuation of all property classes: Section 337: day nurseries, nursery schools and other day care facilities for under fives
- ^{xix} HCA, Additionality Guide, 4th Edition, 2014
- ^{xx} NHS, General and Personal Medical Services statistics March 2018
- ^{xxi} NHS, Business Services Statistics March 2018
- ^{xxii} NHS Digital, General Dental Practices as at 30 November 2018 from <https://digital.nhs.uk/services/organisation-data-service/data-downloads/miscellaneous>
- ^{xxiii} WHO (1948) Preamble to the Constitution of WHO as adopted by the International Health Conference, New York, 19 June - 22 July 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of WHO, no. 2, p. 100) and entered into force on 7 April 1948
- ^{xxiv} <http://www.legislation.gov.uk/ukxi/2015/51/contents/made>
- ^{xxv} WSCC (January 2019) Planning School Places 2019
- ^{xxvi} DfE (March 2019) School Capacity: academic year 2017 to 2018, <https://www.gov.uk/government/statistics/school-capacity-academic-year-2016-to-2017>
- ^{xxvii} West Sussex County Council (May 2018) WSCC Planning Obligations: Explaining Contribution Calculations
- ^{xxviii} <https://fingertips.phe.org.uk/profile/health-profiles/data#page/1/gid/1938132701/pat/6/par/E12000008/ati/101/are/E07000224>