OTTERPOOL PARK

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DOCUMENTS SUBMITTED IN SUPPORT

OP5 APPENDIX 11.1 **- HEALTH IMPACT ASSESSMENT**

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ES Appendix 11.1: Health Impact Assessment

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1 Introduction

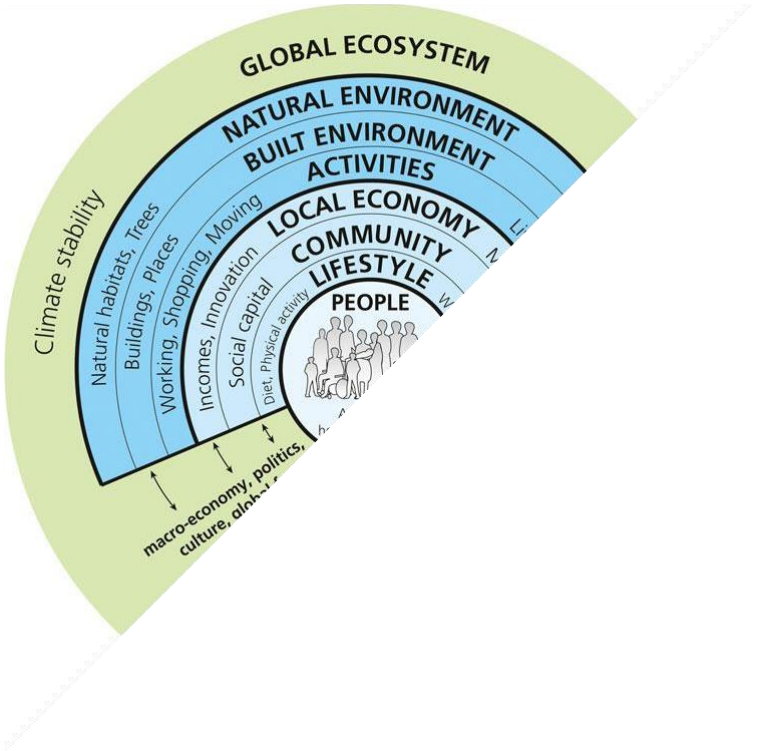
1.1 Overview

1.1.1 This document comprises the Health Impact Assessment (HIA) required to support the amended Outline Planning Application (OPA) for Otterpool Park. Arcadis Consulting (UK) Ltd ('Arcadis') has prepared this HIA on behalf of Otterpool Park LLP (the 'Applicant'). The document is in support of an outline planning application for the development of a new garden settlement accommodating up to 8,500 homes along with retail, commercial, leisure, education, health and community facilities, green infrastructure and public open space.

1.2 Purpose of Health Impact Assessment

1.2.1 The World Health Organisation (WHO) defines health as a 'state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'. The range of personal, social, economic and environmental factors that influence health status are known as health determinants and include the physical environment, income levels, employment, education, social support and housing. Determinants of health and well-being are summarised in Figure 1, based on the diagram produced by Dahlgren and Whitehead (1991) and amended by Barton and Grant (2006) (Ref 1.1).

Figure 1 Determinants of Health and Well-Being



Source: Dahlgren and Whitehead (1991) and amended by Barton and Grant (2006)

1.2.2 Key determinants of health can be categorised as follows:

- pre-determined factors such as age and genetic make-up are fixed and strongly influence a person's health status;

- social and economic circumstances such as poverty, unemployment and other forms of social exclusion strongly influence health, and improving them can significantly improve health;
- how the environment in which people live, work and play are provided and managed (for example air quality, aspects of the built environment) can either damage health or provide opportunities for health improvement;
- lifestyle factors can have significant impacts on health; and
- the accessibility of services such as the National Health Service (NHS), education, social services, transport and leisure facilities influence the health of the population.

1.2.3 The purpose of the health impact assessment is to identify changes to health determinants as a result of a project or programme, setting out where improvements and potential harm to health might occur. The purpose of this HIA is therefore to assess the potential opportunities to improve health outcomes and identify potential impacts on the health of the existing and new community as a result of the Proposed Development, together with appropriate mitigation/ recommendations as necessary. The HIA report does not focus on environmental health issues in detail, as these are being examined as part of the statutory environmental impact assessment. The information in this HIA corresponds with that in the ES Chapter 11: Human Health and can be seen as a more extensive development of the information provided in the ES.

1.3 Otterpool Park Site Description

1.3.1 The site of the Proposed Development is located on approximately 589ha of land directly south-west of Junction 11 of the M20 motorway, and south of the Channel Tunnel Rail Link (CTRL) in the administrative area of Folkestone & Hythe District Council in Kent. Much of the site is greenfield in nature and is predominantly occupied by agricultural uses and associated farm holdings, as well as some residential and light commercial uses. A range of land uses associated with both rural and commercial/industrial activities are present on the site.

1.3.2 The site is bounded by a section of Harringe Lane and farmland to the west and Harringe Brooks Woods and more farmland to the south-west. The southern boundary wraps around Lympne industrial estate. The south-eastern and eastern boundary is bordered by the settlements of Lympne and Newingreen and further north the eastern boundary runs parallel with the A20 before terminating at the intersection of the A20 (Ashford Road) with the CTRL (HS1) line. The northern site boundary runs largely parallel with and adjacent to the mainline rail line, and encompasses the grounds of Westenhanger Castle. Within the site area, the site boundary excludes parcels of land at Otterpool Manor, Upper Otterpool, Westenhanger and Newingreen Junction.

1.3.3 The Kent Downs AONB is located immediately to the east and south of the site. The AONB in this area forms an east-west orientated south-facing escarpment and is occupied by farmland, a number of woodlands and Lympne Castle. Further south of this lie Romney Marsh and the town of West Hythe.

1.3.4 There are a number of existing land uses on the site although a large proportion of the site area is occupied by farmsteads and associated agricultural land for a mixture of arable and livestock breeding purposes. There are farmsteads located at Somerfield Court Farm (west of Barrow Hill, Sellindge), a farmstead located east of Barrow Hill Sellindge, Hillhurst Farm (east of Westenhanger) and several smaller practices located adjacent to the A20 in the area of Newingreen. This demonstrates that the character and population of the area is likely to change significantly, from the existing largely rural character with small villages to a larger settlement.

1.4 Project Description

1.4.1 The Otterpool Park OPA proposes a new garden settlement of up to 8,500 dwellings and other uses including commercial, mixed-use retail, education, health, community and leisure facilities, parking, landscaping, and public open space. A wider application has been prepared for Otterpool Park which ultimately intends to deliver 10,000 homes. The full Development Specification (ES Appendix 4.1) being submitted for outline planning permission, is summarised in the description below:

Outline planning application seeking permission for the redevelopment of the site through the demolition or conversion of identified existing buildings and erection of a residential-led mixed-use development comprising up to 8,500 residential homes including market and affordable homes; age restricted homes, assisted living homes, extra care facilities, care homes, sheltered housing and care villages; a range of community uses including primary and secondary schools, health centres and nursery facilities; retail and related uses; leisure facilities; business and commercial uses; open space and public realm; burial ground, sustainable urban drainage systems; utility and energy facilities and infrastructure; waste and waste water infrastructure and management facilities; vehicular bridge links; undercroft, surface and multi-storey car parking; creation of new vehicular and pedestrian accesses into the site, and creation of a new vehicular, pedestrian and cycle network within the site; improvements to the existing highway and local road network; lighting; engineering works, infrastructure and associated facilities; together with interim works or temporary structures required by the development and other associated works including temporary meanwhile uses. Layout, scale, appearance, landscaping and means of access are reserved for approval.

1.4.2 The proposed Development (up to 8,500 homes) is expected to be constructed over an approximately 19-year period from 2023 to 2042.

1.4.3 A summary of the approximate maximum floorspace areas for each land use type is shown in Table 1. The Design and Access Statement (ES Appendix 4.16) provides more detail on the design and character areas of the proposed Development.

Table 1 Proposed Development Quantum

Land Use	Including	Proposed Floorspace (sqm) (GEA)
Residential	Including a range of tenures as described in the Housing Strategy (ES Appendix 4.14)	Up to 8,500 homes
Education and community facilities	Schools, nurseries, crèches, reserve school floorspace and/or SEN, health centres, place of worship, community centres.	Up to 67,000
Hotel	Hotel	Up to 8,000
Leisure	Sports pavilion and indoor sports hall	Up to 8,500
Mixed retail and related uses	Shops, professional services, restaurants, cafes, drinking establishments, hot food takeaways, offices, businesses	Up to 29,000
Employment	Commercial business space in hubs, commercial business park, light industrial business park.	Up to 87,500
Total non-residential floorspace	**Up to 200,000**	

1.5 Design Principles

1.5.1 Folkestone & Hythe District Council has produced a charter for the aspirations for Otterpool Park; creating an environmentally, socially and economically sustainable settlement, following Garden City Principles (Ref 1.2). The Government incentive for new, locally led garden cities is part of a range of measures aimed at increasing the housing supply.

1.5.2 The Otterpool Park Charter outlines the promotion of healthy and sustainable environments within the healthy new town programme, to deliver high levels of public health within Otterpool Park. This includes the principles to: “Promote healthy and sustainable environments”, “Delivering distinctive high quality townscape with an appropriate mix of housing types and tenures”, “Providing spaces for local food growing” and “Prioritise walking, cycling and sustainable transport”. The aspiration to deliver the principles as set out within the charter are included within the assessment of this HIA.

1.5.3 The built and natural environment is a key determinant of health and wellbeing (Ref. 1.89), and there is an opportunity to influence the health of Otterpool Park and neighbouring community residents through supporting infrastructure for healthy lifestyle behaviours, ensuring appropriate provision of healthcare services and mitigating in advance any negative impacts that the development may potentially cause.

1.5.4 Health and wellbeing are considered in the broadest sense, recognising that these wider determinants of health are as important as good healthcare. Good transport, good housing and education, training and skills and employment all contribute to maintaining and improving health (Figure 1). Low income and poverty, poor housing and poor access to health and other mainstream services contribute to poor health and health inequalities. Prejudice and inequity of service provision further affect some groups (Ref. 1.90). Otterpool Park should support health and wellbeing, promote healthy behaviours and address and mitigate negative health outcomes and health inequalities.

1.6 Report Structure

1.6.1 The HIA is hereafter structured as follows:

- **Chapter 2** sets out the policy context for the HIA.
- **Chapter 3** explains the methodology used to undertake the HIA.
- **Chapter 4** describes baseline information collated in relation to the local and wider study areas, providing a profile of local communities and vulnerable populations.
- **Chapter 5** identifies the potential health effects of the proposed Development during construction, early occupation and operational phases, taking into account information identified from the community profile, background evidence and environmental baseline data.
- **Chapter 6** provides a summary and conclusions.

2 Policy Context

2.1.1 A summary of the main policy context for the HIA, taking into account national, regional and local plans and policies is provided in Table 2 below.

Table 2 Regulatory and Planning Policy Framework Requirements

Policy / Legislation	Summary of Requirements	Description in Relation to Health (if relevant)
National Policy		
Government White Paper: Healthy Lives, Healthy People (2010) (Ref 1.3).	This paper provides a framework for tackling the wider social determinants of health, presenting the Government's commitment to protecting the population from serious health threats; helping people live longer, healthier and more fulfilling lives; and improving the health of the poorest, fastest. The Paper identifies that local government and communities are responsible and accountable for healthy planning through planning, transport, schools and housing.	
The National Planning Policy Framework (NPPF) (2021) (Ref 1.4).	Section 8 of the NPPF relates to promoting healthy and safe communities. Paragraph 92 states that planning policies and decisions should aim to achieve healthy, inclusive and safe places which promote social interaction, are safe from crime, accessible pedestrian routes and public space and enable and support healthy lifestyles. Paragraph 93 focuses on the provision of social, recreational and cultural facilities and services the community needs and recommends and integrated approach. Paragraphs 97 and 98 relate to the promotion of public safety and the provision of access to open space, sport and recreational activities respectively. National policy recognises the importance of high-quality open spaces and opportunities for sport and physical activity, to the well-being of communities.	The NPPF sets out the Government's planning policies for England and how these should be applied, with the central theme being a presumption in favour of sustainable development.
A Green Future: Our 25 Year Plan to Improve the Environment (2018) (Ref 1.5).	Chapter 3 relates to connecting people with the environment to improve health and wellbeing, through using green spaces, encouraging children to be close to nature, in and out of school, greening our towns and cities and making 2019 a Year of Action for the environment.	The Green Future document sets out a strategy for how to encourage healthier more active lifestyles through the promotion of usable green space, particularly among children
Planning Practice Guidance (PPG) – Healthy and safe communities (2019) (Ref 1.6).	The document provides guidance on how to deliver the NPPF. It highlights that the links between health and planning have been long established and that the built and natural environments are major determinants of health and wellbeing.	Planning has an important role in creating environments that support and encourage healthy lifestyles and identifying and securing the facilities needed for primary, secondary and tertiary care and the wider health and care system.

Policy / Legislation	Summary of Requirements	Description in Relation to Health (if relevant)
Regional Policy		
South Kent Health and Wellbeing Strategy 2014 (Ref 1.7).	The strategy aims to address the health and wellbeing needs of people living in communities at every stage of their lives and has been written by the South Kent Coast Health and Wellbeing Board (SKC HWBB). The strategy is based on the Kent Joint Strategic Needs Assessment, which identifies current and future needs for adults and children, and other local data. It is an evolving strategy that will respond to the changes that occur through new ways of working and challenges that may be faced in the future.	The health and wellbeing strategy outlines the priority area's for improving people's health and reducing health inequalities that exist in the county.
Increasing Opportunities, Improving Outcomes: Kent County Council's Strategic Statement 2015-2020 (Ref 1.8).	The statement links the vision and priorities of the Council to a series of strategic and supporting outcomes that will drive the commissioning and service delivery across the County. The statement identifies the challenge of an increasingly older population with long-term health conditions. The vision recognises this by enforcing health as one of the strategic outcomes for '*Kent communities to feel the benefits of economic growth by being in-work, healthy and enjoying a good quality of life'.*	The strategy has three strategic outcomes related to health • Children and young people in Kent get the best start in life • Kent communities feel the benefits of economic growth by being in-work, healthy and enjoying a good quality of life • Older and vulnerable residents are safe and supported with choices to live independently
Local Policy and Strategy Documents		
Folkestone & Hythe Council Places and Policies Local Plan (Adopted 16 September 2020) (Ref 1.9).	Section 16 of the Plan relates to Health and Wellbeing, the chapter contains policies dealing with a range of matters relating to the health and wellbeing of the local community. Policies cover: Promoting healthier food environments; Improving health and wellbeing and reducing health inequalities; Supporting healthy lifestyles; and Promoting active travel. Policy HW1 (Promoting Healthier Food Environments) places limitations for new hot food takeaway shops. Policy HW2 (Improving the health and Wellbeing of the Local Population and Reducing Health Inequalities) states that for residential development of 100 or more units and non-residential development in excess of 1,000sqm a Health Impact	This HIA and ES Chapter 11: Human Health align to Local Plan policy HW2 Improving the health and Wellbeing of the Local Population and Reducing Health Inequalities.

Policy / Legislation	Summary of Requirements	Description in Relation to Health (if relevant)
	Assessment will be required, which will measure the wider impact of the development on healthy living and the demands that may be placed on health services and facilities arising from the development. Where significant impacts are identified, measures to address the health requirements of the development should be provided and/or secured by planning obligations or planning conditions as appropriate. Policy HW3 (Development that Supports Healthy, Fulfilling and Active Lifestyles) states that to increase, create and safeguard opportunities for healthy, fulfilling and active lifestyles and to reduce the environmental impact of importing food development proposals should: 1. Incorporate productive landscapes in the design and layout of buildings and landscaping of all major developments; 2. Not result in the net loss of existing allotments; and 3. Not result in the loss of the best and most versatile agricultural land (Grades 1, 2 and 3a) unless there is a compelling and overriding planning reason to do so and mitigation is provided through the provision of productive landscapes on-site or in the locality. Policy HW4 relates to the promotion of active travel and notes that planning permission will be granted for development likely to give rise to increased travel demands, where the site has (or will attain) sufficient integration and accessibility by walking and cycling including, where appropriate, through: 1. The provision of new cycle and walking routes that connect to existing networks, including the wider public rights of way network, to strengthen connections between settlements and the wider countryside; 2. The protection and improvement of existing cycle and walking routes, including the public rights of way network, to ensure the effectiveness and amenity of these routes is maintained, including through maintenance, crossings, signposting and	

Policy / Legislation	Summary of Requirements	Description in Relation to Health (if relevant)
	way-marking, and, where appropriate, widening and lighting; 3. The provision of safe, direct routes within permeable layouts that facilitate and encourage short distance trips by walking and cycling between home and nearby centres of attraction, and to bus stops or railway stations, to provide real travel choice for some or all of the journey; and 4. The provision of, or contributions towards, new cycle and walking routes identified in adopted strategic documents.	
Folkestone & Hythe District Council Core Strategy Review (Feb 2022) (Ref 1.12).	Policy SS6 (New Garden Settlement – Development Requirements) relates to the provision of a new garden settlement, to be developed on garden town principles and which will have a distinctive townscape and outstanding accessible landscape. It will be planned to be sustainable, providing new homes with a broad mix of tenures, employment opportunities and community facilities within easy walking and cycling distance. It will be a landscape-led development with an emphasis on woodland planting, open space and recreation that supports healthy living and encourages interaction between residents. Environmentally the settlement will be a beacon of best practice, making best use of new technologies, and will be designed to achieve a low carbon, low waste and low water usage development with an aspiration for water and carbon neutrality. The policy states that a health centre shall be provided in the early phases of development, in partnership with local Clinical Commissioning Groups and the Kent Health and Wellbeing Board, drawing from exemplar facilities elsewhere. The centre shall be designed to deliver an integrated service for patients - including a cluster of general practitioners, a wide range of diagnostic services and primary care treatment – to minimise the requirement for secondary care treatment at local hospitals. The centre should be located on an accessible site close to other community services.	The design of Otterpool Park has followed garden town principles. The vision for Otterpool Park is it will be a community built on sustainability with a wide range of mixed tenure homes and jobs for all age groups that are within easy walking, cycling and commuting distance.
Folkestone & Hythe Healthier Housing Strategy 2018-2023 (Ref 1.13).	This document provides the long-term multi-agency vision for housing in the district. It identifies ongoing and new	The Strategy sets out the long term housing vision for the district. The Council intends to work to achieve its

Policy / Legislation	Summary of Requirements	Description in Relation to Health (if relevant)
	housing initiatives, including innovative options such as Community Led Housing and self-build. This document has helped identify where joint initiatives could be possible at Otterpool Park.	ambitions for the district through the delivery of the following Strategic Objectives: • More Homes – provide and enable the right amount, type and range of homes • More Jobs – work with partners to provide a vibrant local economy • Appearance Matters • Health Matters • Achieving Stability • Delivering excellence
Creating Tomorrow Together: Folkestone & Hythe District Council draft Corporate Plan for 2021-30 (Ref 1.14).	The Council Corporate Plan seeks to invest in the next generation through deliverable strategic objectives. 'Health Matters' is one of the objectives to keep the communities healthy and safe. As part of the objective, priorities are set, including reducing impact of anti-social behaviour, enhancing access to open space, new leisure facilities, best use of community assets and reducing health inequalities through partnership working.	Creating Tomorrow Together is the council's new draft Corporate Plan. It sets out ambitions for the district over the next 10 years and outlines our priorities for action to make Folkestone and Hythe a better place to live, work and visit. The guiding principles of the plan include: • Sustainable recovery • Locally distinctive • Greener Folkestone & Hythe • Transparent, stable, accountable and accessible A part of the Plan is the delivery of new high-quality affordable housing and delivery of Otterpool Park, defined as a sustainable new development.

3 Methodology

3.1 Introduction

3.1.1 A Health Impact Assessment (HIA) is a means of assessing the health impacts of policies, plans and projects using quantitative, qualitative and participatory techniques. It aims to produce an evidence base to inform decision-making to maximise the positive health impacts and minimise the negative health impacts of proposed policies, plans or projects. It assumes that policies, programs and projects have the potential to change the determinants of health, which in turn influence health outcomes of individuals and communities.

3.1.2 The main objective of the HIA is to ensure that where possible, the detailed proposals of Otterpool Park actively promote health and wellbeing in the local population, reduce health inequalities and do not actively damage health and wellbeing.

3.1.3 The HIA has followed guidance produced by the Healthy Urban Development Unit (HUDU), Planning for Health: Rapid Health Impact Assessment Tool (fourth edition October 2019) (Ref 1.15). The HUDU guidance helps identify those determinants of health likely to be influenced by a specific project or proposal. The aim of the Assessment Tool is to ensure 'health is properly considered when evaluating and determining planning proposals and that where possible development plans and proposals have a positive rather than a negative influence on health'.

3.1.4 A scoping exercise to identify those determinants to be assessed within the HIA was undertaken during the summer of 2018, the findings from which are summarised in Appendix A. The HIA will assess how the new development impacts on the following determinants of health and wellbeing:

- Housing design and affordability
- Access to healthcare services and other social infrastructure
- Access to open space and nature
- Accessibility and active travel
- Access to healthy food
- Access to work and training
- Social cohesion and lifetime neighbourhoods
- Air quality, noise and neighbourhood amenity
- Minimising the use of resources
- Climate change.

3.2 HIA Process

3.2.1 The HIA has been prepared through a thorough evidence review using available data on the population and health status of the potential population and existing communities to understand potential health impacts and opportunities to mitigate negative impacts. This included establishing baseline conditions from the Office for National Statistics (ONS), Public Health England and Indices of Deprivation (2019). The HIA has used the same study area identified in ES Chapter 11: Human Health. Environmental baseline information for further context has been derived from other reports and documents prepared in support of the OPA for Otterpool Park. These have included:

- Environmental Statement (notably Chapter 6: Air Quality, Chapter 8: Climate, Chapter 12: Landscape and Visual Impact, Chapter 13: Noise and Vibration, Chapter 14: Socioeconomics and Community, Chapter 16: Transport and Chapter 17: Waste and Material Resources);

- Design and Access Statement (ES Appendix 4.16);
- Energy Strategy (ES Appendix 4.9);
- Housing Strategy (ES Appendix 4.14);
- Transport Assessment (ES Appendix 16.4); and
- Community Development and Facilities Strategy (ES Appendix 4.10).

3.2.2 The health assessment also identifies vulnerable groups; these include children, older people, people with disabilities and people from low income groups. Vulnerable population groups can experience different and specific impacts, therefore for ease of understanding in this assessment vulnerable populations are considered collectively using professional judgement.

3.3 Assessment Methodology

3.3.1 For each of the topic areas scoped into the health assessment the following criteria have been used, together with professional judgement, to make an assessment of the potential impacts on health and well-being:

- change – identification of the aspect of the scheme that would cause the change, how the health determinant might change as a result (including whether the change would be beneficial or adverse).
- duration – an assessment of the duration of change (temporary or permanent).
- intensity and exposure – consideration of the magnitude or severity of the change in the health determinant, and the scale of people likely to be exposed to the change, including identification of vulnerable populations.

Assessing Significance

3.3.2 Table 3 sets out how significance of effect has been identified taking into account the above.

Table 3 Assessment of Significance of Health Effects

Significance of Effects	Definition	Intensity and Exposure	Duration
Major Negative	Health effects are categorised as a major negative if they could lead directly to deaths, acute or chronic diseases or mental ill health. They can affect either both physical and mental health, either directly or through the wider determinants of health and wellbeing. These effects can be important local, district, regional and national considerations. Mitigation measures and detailed design work can reduce the level of negative effects though residual effects are likely to remain.	The exposures tend to be of high intensity and/or over a large geographical area and/or affects a large number of people (e.g. over approximately 500 people) or impacts on vulnerable groups	Long term duration Intermittent, temporary or permanent in nature.
Moderate Negative	Health effects are categorised as a moderate negative if health effects are long term nuisance impacts e.g. odours and noise or may lead to the exacerbation of an existing illness. Moderate negative effects may include nuisance/quality of life impacts which may affect physical and mental health either directly or through the wider determinants of health.	The exposures tend to be of moderate intensity and/or over a relatively localised area and/or likely to affect a moderate-large number of people e.g. between approximately 100-500	Medium term duration Intermittent, temporary or permanent in nature.

Significance of Effects	Definition	Intensity and Exposure	Duration
	The cumulative effect of a set of moderate effects or intra-project effects could lead to a major effect. These effects could be important locally or regionally. Mitigation measures and detailed design work can reduce an in some/many cases remove the negative and enhance the positive effects through residual effects are likely to remain.	people and/or vulnerable groups.	
Minor Negative	Health effects are categorised as minor negative if they lead to lesser change in quality of life or wellbeing. Increases in noise, odour, visual amenity, etc. are examples of effects, which could be important local considerations. Mitigation measures and detailed design work can reduce the negative effects such that there are only some non-significant residual effects remaining.	The exposures tend to be of low intensity and/or over a small area and/or affect a small number of people e.g. approximately less than 100.	Short term duration Intermittent, temporary or permanent in nature.
Neutral / No Effect	No health effects or effects within the bounds of normal/accepted variation.	N/A	N/A
Minor Positive	Health effects are categorised as minor positive if they lead to lesser change in quality of life or wellbeing. Reductions in noise, odour, visual amenity, etc. are examples of effects, which could be important local considerations. Mitigation measures and detailed design work can reduce the negative and enhance the positive effects such that there are only some residual effects remaining.	The exposures tend to be of low intensity and/or over a small area and/or affect a small number of people e.g. approximately less than 100.	Short term duration Intermittent, temporary or permanent in nature.
Moderate Positive	Health effects are categorised as a moderate positive if they enhance mental wellbeing significantly and/or reduce exacerbations to existing illness and reduce the occurrence of acute or chronic diseases.	The exposures tend to be of moderate intensity and/or over a relatively localised area and/or likely to affect a moderate-large number of people e.g. between approximately 100-500 people and/or vulnerable groups.	Medium term duration Intermittent, temporary or permanent in nature.
Major Positive	Health effects are categorised as a major positive if they prevent deaths/prolong lives, reduce/prevent the occurrence of acute or chronic diseases or significantly enhance mental wellbeing.	The exposures tend to be of high intensity and/or over a large geographical area and/or affects a large number of people (e.g. over approximately 500 people) or impacts on vulnerable groups	Long term duration Intermittent, temporary or permanent in nature.

3.4 Study Area

3.4.1 The proposed Development has the potential for health impacts on the existing population of settlements in the vicinity of the site and surrounding area. The geographical scope for the HIA has therefore used the following study areas:

- **Local level:** using data at Lower Super Output Area (LSOA) level where available.
- **Wider:**
  - **District level**: using data covering Folkestone & Hythe District Council.
  - **Regional level**: using data at Kent / South-East England level, primarily for comparative purposes.

3.5 Limitations of Assessment

3.5.1 Generally, there is a level of uncertainty around health effects arising from a particular intervention by virtue of the interrelationships of other factors, for example age or pre-existing health conditions. Health effects have been identified using evidence where available to suggest where there are credible links, together with professional judgement. This typical industry standard approach follows the principle of proportionality and is considered appropriate for the level of assessment.

3.6 Consultation

3.6.1 The HIA assessment considered the likely effects of the proposed development in respect to health using HIA policy guidance and information gathered from the consultation process. Community consultation has occurred throughout the design of the proposed Development. Further information on the consultation carried out is provided at Chapter 2 of the ES and at Appendix A of this HIA and within the Statement of Community Involvement (Application Ref.: OP15) and supplemental Statement of Community Involvement (Application Ref.: OP16). Health related matters discussed at community consultation events have fed into the design and led to the inclusion of health related features of the proposed Development. These health elements are assessed in this HIA. Also, the Community Development and Facilities Strategy (ES Appendix 4.10), which is a key reference document for the HIA included consultation with health providers and stakeholders such as the Clinical Commissioning Groups (CCG).

4 Community Profile

4.1.1 This section provides a profile of the existing community with reference to demographic, socio-economic and health-related characteristics.

4.2 Demographic Characteristics

4.2.1 Table 4 shows the population profile for the local and wider study areas as taken from Census data for 2001 and 2011, with population estimates for 2020. The table shows that population growth has been lower in Folkestone & Hythe District than is the case at county, regional and national levels.

Table 4 Population Levels and Change (%)

Study Area	2001	2011	Population Growth 2001-2011 (%)	2020 Population Estimate	Population Growth 2011-2020 (%)
Folkestone & Hythe District	96,238	107,969	12.2	113,320	5.0
Kent County	1,329,718	1,463,740	10.08	1,589,057	8.6
South East	8,000,645	8,634,750	7.93	9,217,265	6.8
England	49,138,831	53,012,456	7.88	56,550,138	6.7

Source: Office for National Statistics Census Data 2001, 2011, Population Estimates Mid-2020

4.2.2 Population density for each of the three LSOAs covered by the application Site (Shepway 008D, Shepway 009C and Shepway 009D) was 0.7, 1.3 and 2.5 persons per hectare respectively in 2011, compared to a district-wide population density of 3.0. Again, a lower population density is expected in a more rural area.

4.2.3 Table 5 shows population by gender for each of the study areas, which are broadly comparable with a slightly higher proportion of females than for the district, region or England as a whole.

Table 5 Gender

	Local Study Area	Folkestone & Hythe District	Kent County	South East	England
Males (%)	48.0	49.2	48.9	49.1	49.2
Female (%)	52.0	50.8	51.1	50.9	50.8

Source: Nomis, 2011

4.2.4 Table 6 shows the age profile for each of the study areas (using 2020 population estimate data). The local study area clearly has a significantly older age profile than county, regional or national study areas. County and regional study areas exhibit a higher proportion of younger people than is the case for Folkestone & Hythe District.

Table 6 Age Profile (%)

Age Group	Folkestone & Hythe District	Kent	South East	England
0-15	16.8	19.5	19.3	19.2
16-24	8.4	9.8	10.2	10.5
25-44	28.1	30.4	31.2	32.6
45-64	21.7	19.9	19.7	19.2
65+	25.0	20.3	19.7	18.5

Source: Mid-Year Population Estimates, 2020

4.2.5 Table 7 outlines data relating to ethnicity, identifying that the local study area, district of Folkestone and Hythe and the County of Kent have higher proportions of people from a white ethnic background than the South East or England as a whole. Indeed, the local study area is predominantly comprised of people from white ethnic backgrounds.

Table 7 Ethnicity (%)

Ethnicity	Local Study Area	Folkestone & Hythe District	Kent	South East	England
White	98.1	94.7	93.7	90.7	85.4
Mixed	0.9	1.2	1.5	1.9	2.3
Asian/Asian British	0.8	3.4	3.3	5.2	7.8
Black/African/Caribbean/Black British	0.2	0.4	1.1	1.6	3.5
Other ethnic group	0.1	0.3	0.5	0.6	1.0

Source: Census Data 2011

4.2.6 Table 8 shows data relating to household size. The table shows that the local study area primarily comprises one family households, with the proportion of single person households being below the level experienced at district and county level.

Table 8 Housing Tenure (%)

	Local Study Area	Folkestone & Hythe District	Kent	England
One person household	24.2	33.3	28.8	30.2
One family household	69.5	60.2	64.7	61.8
Other	6.3	6.5	6.5	8.0

Source: Census Data 2011

4.2.7 Housing tenure data is shown in Table 9. The local study area shows a significantly higher proportion of home ownership than is the case in district, county, regional and national study areas.

Table 9 Housing Tenure (%)

	Local Study Area	Folkestone & Hythe District	Kent	South East	England
Owned	83.0	64.8	67.3	67.6	63.3
Shared ownership	0.6	0.5	1.0	1.1	0.8
Private rented	5.2	22.2	16.5	16.3	16.8
Social rented	9.6	11.2	13.9	13.7	17.7
Living rent-free	1.6	1.3	1.3	1.3	1.4

Source: Census Data 2011

Socio-Economic Characteristics

4.2.8 Headline economic data taken from the document 'Shepway in Context' (Ref. 1.91) and more recent data from Nomis is summarised as follows:

- Between October 2016 and September 2017, 79.7% of Shepway's working age population (16-64) was economically active, which is lower than the South East (81.2%) but higher than Great Britain (78.1%) as a whole (Nomis, 2017);
- The proportion of economically active people who were unemployed in Shepway was 3.7%, which is higher than regional (3.4%) but lower than national levels (4.5%) (Nomis, 2017);
- At a local scale, there is a greater proportion of males in employment (85.2%) than females (72.3%). This difference in employment statistics between men and women is similar at regional and national level.
- The most significant contributing factors to economic inactivity at regional and national level are studying and looking after family or home. Dominant employment sectors are professional elementary occupations (20.0%) and caring, leisure and other service occupations (14.1%).

4.2.9 Table 10 shows the economic activity and inactivity rates for Folkestone and Hythe District compared with Kent and the South East. The proportion of people economically active in Folkestone and Hythe District is greater than for the other two geographical areas; the proportion of people who are self-employed is also higher. A higher proportion of economically inactive residents within Kent are classified as long-term sick than is the case for the region.

Table 10 Economic Activity and Inactivity (%)

	Folkestone & Hythe District	Kent	South East
Economically Active	84.5	81.1	82.3

	Folkestone & Hythe District	Kent	South East
In employment	83.4	78.0	79.4
Employees	62.2	64.3	67.3
Self-employed	20.4	13.4	11.8
Unemployed	3.6	3.8	3.5
Economically Inactive	15.5	18.9	17.7
Looking after family / home*	-	22.0	20.8
Long-term sick*	-	20.7	19.6

Source: Nomis July 2019-Jun 2020 * Data is not available at District level

4.2.10 The ONS claimant count for Folkestone and Hythe District in October 2018 was 2.7%; which compares to 2.0% for Kent and 1.4% for the South East as a whole. A higher proportion of claimants are males across all three geographies. Folkestone and Hythe District shows a higher proportion of claimants in the 18-21 age group than is the case for Kent or the South East (5.0% compared to 3.6% and 2.1% respectively).

4.2.11 With regard to qualifications, statistics for Folkestone & Hythe District show that a higher proportion of residents have no or lower level qualifications than is the case at county level or for the South East (Table 11).

Table 11 Qualifications (%)

Qualifications	Former Shepway District	Kent	South East
No qualifications	21.7	22.5	19.1
GCSE and A level equivalents	39.2	43.9	42.2
Further and higher education	30.5	24.7	29.9
Other qualifications	8.6	8.9	8.8

Source: Census data 2011

4.2.12 Average gross weekly pay for full-time workers in 2020 was £564 for residents of Folkestone and Hythe District, compared to £607.1 for Kent and £631.8 for the South East (Nomis 2020).

Health Profile

4.2.13 Public Health England prepares 'Health Profiles' that provide an overview of health for each local authority in England. The most recent report was published in 2019. The health profile for the wider study area identifies that the health of people in Folkestone & Hythe District is varied compared with the national average.

4.2.14 As shown in Table 12, life expectancies in Folkestone & Hythe for both men and women are similar to the average for England. Life expectancy is 6.9 years lower for men and 5.4 years

lower for women in the most deprived areas of Folkestone & Hythe than in the least deprived areas.

Table 12 Life expectancy 2017-2019

Indicator	Folkestone & Hythe District	South East of England	England
Life expectancy (Males)	79.3	80.8	79.8
Life expectancy (Females)	82.9	84.3	83.4

Source: Public Health Outcomes

4.2.15 As shown in Table 13, the wider study area has a higher mortality rate than the average for the South East of England and England as a whole. The suicide rate for the wider study area is greater than the regional and national average.

Table 13 Life expectancy and causes of death per 100,000 people

	Folkestone and Hythe District	South East of England	England
Under 75 mortality rate: all causes (2016-18)	338	292	330
Under 75 mortality rate: cardiovascular (2017-19)	64.8	57.1	70.4
Under 75 mortality rate: cancer (2017-19)	142.1	121.6	129.2
Suicide rate (2017-19)	11.9	9.6	10.1

Source: Public Health England

4.2.16 Table 14 shows the reported health of residents living within the local and wider area, as taken from Census data 2011 (Nomis). Residents living within Folkestone & Hythe and Kent report marginally poorer levels of health when compared to the South East and England as a whole.

Table 14 General Health

	Local Study Area	Folkestone & Hythe District	Kent	South East	England
Very Good Health	44.9%	42.2%	46.7%	49.0%	47.2%
Good Health	37.1%	36.1%	34.9%	34.6%	34.2%
Fair Health	13.5%	15.2%	13.3%	12.0%	13.1%
Bad Health	3.6%	4.9%	4.0%	3.4%	4.2%
Very Bad Health	1.1%	1.5%	1.1%	1.0%	1.2%

Source: Nomis, 2011

4.2.17 Table 15 shows the proportion of residents experiencing long-term health problems. The table shows that there is a higher proportion of residents for whom day-to-day activities are

'limited a lot' within the district of Folkestone & Hythe than Kent, the South East or England as a whole.

Table 15 Long Term Health Problem or Disability

Long-term health problem or disability	Local Study Area	Folkestone & Hythe District	Kent	South East	England
Day-to-day activities limited a lot	7.8%	10.0%	8.0%	6.9%	8.3%
Day-to-day activities limited a little	10.5%	11.1%	9.6%	8.8%	9.3%
Day-to-day activities not limited	81.7%	79.0%	82.4%	84.3%	82.4%

Source: Nomis, 2011

4.2.18 Dementia and diabetes health diagnosis have been specifically identified due to the scale of affected people and interaction with housing needs and lifestyle relevant to Otterpool Park.

4.2.19 Dementia is an umbrella term for a set of symptoms caused when the brain is damaged by diseases such as Alzheimer's or a series of strokes. In England it is estimated that around 676,000 people have dementia. According to the mortality figures, dementia and Alzheimer's disease is the leading cause of death for people in England and Wales in 2019. Off all deaths registered in 2019 in England and Wales 12.5% were due to dementia and Alzheimer's disease (Ref 1.17).

4.2.20 Diabetes is a health condition which exists in two main forms where blood glucose levels are too high. It is estimated that one in 15 people in the UK have diabetes, including one million people who have not been diagnosed (Ref 1.18).

4.2.21 Folkestone & Hythe has a lower than expected rate of diagnosis for people with dementia and people with diabetes compared to the levels that would be expected based on estimated averages, highlighting the potential for further increased health risk in the district.

4.2.22 The definition for the diabetes diagnosis rate according to Public Health England is the estimated diabetes diagnosis rate, expressed as a percentage defined as the observed number of people with a formal diagnosis of diabetes as a proportion of the estimated number with diabetes. A value close to 100% indicates a small gap between the observed prevalence and estimated prevalence and indicates that a system is good at proactively identifying people with hitherto undiagnosed diabetes. The definition for dementia diagnosis follows the same principles.

Table 16 Health diagnosis (%)

Health diagnosis	Folkestone and Hythe District	South East of England	England
Diabetes diagnoses (aged 17+) (2018)	75.0	75.2	78.0
Dementia diagnoses (aged 65+) (2020)	59.7	64.5	67.4

Source: Public Health England

Diet and Nutrition

4.2.23 Good nutrition and healthy eating are important factors for all people to follow as part of a healthy life. Poor diet contributes to approximately half of coronary heart disease. Table 17 highlights that within the local authority of Folkestone and Hythe the density of fast-food outlets is greater than the national average for England. No data is available for south-east England.

Table 17 Density of fast-food outlets (per 100,000 population) (2018)

	Folkestone and Hythe District	England
Density of fast-food outlets	107.2	96.1

Source: Public Health England

4.2.24 Childhood obesity is a particular issue due to increasing rates and problems associated with becoming obese at earlier ages and staying obese for longer. Table 18 shows that childhood obesity for year 6 children is greater in Folkestone & Hythe than the regional and national average for England.

Table 18 Children's Weight Indicators 2018/19 (%)

Weight	Folkestone and Hythe District	South East of England	England
Obese children (Year 6)	21.0	16.8	20.2
Adults overweight or obese	66.9	60.9	62.3

Source: Public Health England

Mental Health and Wellbeing

4.2.25 The WHO defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, with the important implication of this definition is that mental health is more than just the absence of mental disorders or disabilities. There is a wide range of mental health conditions and disorders, with common mental health conditions such as depression and anxiety affecting one in five of the population. Issues of mental wellbeing, mental illness and mental distress are all interlinked, and there is a clear link between loneliness and poor mental and physical health.

4.2.26 Evidence indicates that people with a diagnosed mental health illness experience higher physical health inequalities and lower life expectancies. For example, those with severe and prolonged mental illness die on average 15 to 20 years earlier than those without, thus representing one of the greatest health inequalities in England (Ref 1.19).

4.2.27 The Government published Health Matters: Reducing Health Inequalities in Mental Illness in 2018, which highlighted that people with severe and enduring mental illness are at greater risk of poor physical health and reduced life expectancy compared to the general population (Ref 1.20). The report outlines the importance of considering mental health in all aspects of life.

4.2.28 The Measuring National Well-being programme (MNW) began in 2010 and gathers data relating to personal well-being (including happiness, anxiety levels and life satisfaction). The ONS gathers personal well-being data through the Annual Population Survey (APS) where adults are asked four personal wellbeing questions to understand how they feel about their lives. People are asked to respond on a scale of 0 to 10, where 0 is "not at all" and 10 is "completely", meaning that 10 is completely happy and 10 is completely anxious. Estimates

are then produced of the mean ratings. The data set out in Table 19 shows that, in Folkestone and Hythe happiness and anxiety levels are higher than regional and national averages.

Table 19 Personal Well-being Data

	Area	2016/17	2017/18	2018/19	2019/20
Happiness	England	7.51	7.52	7.56	7.48
	South East of England	7.58	7.58	7.64	7.52
	Kent	7.59	7.5	7.59	7.47
	Folkestone & Hythe	7.57	6.84	7.9	7.73
Anxiety	England	2.91	2.9	2.87	3.05
	South East of England	2.87	2.92	2.88	3.12
	Kent	2.84	2.86	2.98	3.12
	Folkestone & Hythe	3.12	2.94	3.26	3.47

Source: Office for National Statistics, Local Authority Update 2020

4.2.29 The Kent Health and Well-being Strategy includes as one of its outcomes to 'ensure that those with mental ill health are supported to live well'. Priorities within Kent include tackling areas where Kent is performing worse than the England average; tackling health inequalities related to people who have mental health conditions; tackling gaps in provision and quality; and transforming services to improve outcomes, patient experiences and value for money.

4.2.30 The Kent Joint Strategic Needs Assessment Exceptions Report for 2017/18 highlights specific statistics in relation to mental health in the county including that:

- there are an estimated 163,500 people (12.9%) across Kent and Medway aged over 16 who have a treatable common mental illness (depression and/or anxiety)
- people living in most deprived areas are disproportionately affected
- suicide rates in Kent are statistically significantly higher than the national average for 2014-16 (a rate of 11.6 per 100,000 population for Kent against a rate of 9.9 for England
- around 10% of children aged between 5-16 years in Kent are believed to have a diagnosable emotional or behavioural mental health condition, with the percentage estimated to have increased since 2014.

4.2.31 The long-term strategic goals of the NHS South Kent Coast Clinical Commissioning Group (CCG) include prioritising and tackling mental health, as an area recognised for improvement. A newly procured children and young people's mental health service went live in September 2017.

5 Assessment of Health Effects

5.1 Overview

5.1.1 The assessment considers the potential effects on health in relation to the following factors as reflected on in the Otterpool Park Charter:

- Housing quality and design
- Access to healthcare services and other social infrastructure
- Access to open space and nature
- Accessibility and active travel
- Crime reduction and personal safety
- Access to healthy food
- Access to work and training
- Air quality, noise and neighbourhood amenity
- Social cohesion and lifetime neighbourhoods
- Minimising the use of resources
- Climate change.

5.2 Housing Design and Affordability

5.2.1 This section considers the potential effects on health in relation to housing quality and design associated with the construction, early occupation and operational phases of the proposed Development.

Evidence Review

5.2.2 Housing is inextricably linked to health, in terms of the provision of physical shelter, sense of security and comfort. The home and neighbourhood environment provide structural and social security, without which health can be negatively impacted. It is estimated that we spend around 90% of our time indoors, with 65% of this spent at home (Ref 1.21). Housing is a basic human right, and the quality and affordability of houses can determine the health status of residents. It is estimated that 20% of the UK's housing stock does not meet decent home standards and that the cost to the NHS of poor-quality housing is £2.5 billion per annum (Ref 1.22). Living in good quality and affordable housing is associated with numerous positive health outcomes for the general population and those from vulnerable groups.

5.2.3 The relationship between housing and health is complex but creating a physical environment in which people can live healthier lives with a greater sense of wellbeing is hugely important in reducing health inequalities. The right home environment can protect and improve health and wellbeing and prevent physical and mental ill health; enable people to manage their health and care needs, including long term conditions; and allow people to remain in their home for as long as they choose. Good housing can delay and reduce the need for primary care and social care interventions, including admission to long-term care settings; delay and reduce the need for primary care; prevent hospital admissions; enable timely discharge from hospital; enable rapid recovery from periods of ill health or planned admissions (Ref 1.23).

5.2.4 There are a number of housing attributes that can affect our health and wellbeing. Poor housing is linked to a variety of conditions such as respiratory diseases (e.g. asthma); depression and anxiety; nausea and diarrhoea; infections; allergic symptoms; hypothermia; and physical injury from accidents. Energy inefficient housing in cold climates is also linked to illnesses caused by cold and damp living conditions. It can exacerbate existing health conditions, make treating health conditions difficult, and have a negative social impact on

the ability of individuals to achieve their potential in education or employment. Those living in poor condition housing also often suffer from a number of other deprivation factors such as low income, high levels of unemployment and social isolation (Ref 1.24). Housing instability disproportionately affects people on low-income and other vulnerable groups and causes financial and psychological stress.

5.2.5 Everyone is potentially at risk from the effects of poor housing, lifestyle and wider environmental conditions. However, those susceptible i.e., vulnerable groups include the very young, elderly and infirm and those who spend a greater time indoors. The NPPF 2021 states that local authorities should 'plan for a mix of housing based on current and future demographic trends, market trends and the needs of different groups in the community (such as, but not limited to, families with children, older people, people with disabilities, service families and people wishing to build their own homes)'.

5.2.6 For extra care housing, commissioners and developers need to consider that the space being created should meet not only the needs of its future older residents but also the staff that will use it as a place of work, and visitors who may use it as a community resource. Location is of considerable importance in the development of extra care housing and can mean the difference between a scheme and its residents being part of an external community or remaining segregated and isolated. In some areas there is a tendency to perceive specialist housing for older people as not needing to be in densely populated areas. However, where a scheme is located may influence the degree of community involvement, it may limit its attractiveness to staff to work in if it is inaccessible, and it may discourage relatives or friends from visiting.

Context

5.2.7 The Folkestone and Hythe Council Places and Policies Local Plan (2020) includes policies to ensure that new developments will be sustainable, the natural and historic environment will be maintained and that new developments through their design will improve the quality of life of residents and help to foster healthy lifestyles. These policies are referenced in the Folkestone & Hythe District Council Core Strategy Review (2022), notably Policy SS6 relating to development requirements of the proposed garden settlement at Otterpool Park.

5.2.8 The Vision for Kent describes the challenges facing Kent and the priorities for the County for the next ten years. The strategy promises to ensure there is choice of high-quality and accessible services that will tackle disadvantage particularly through housing that supports strong communities, provides a good quality of life and reduces household costs.

5.2.9 Market evidence suggests significant demand for homes in Kent, and issues relating to housing affordability and supply not keeping pace with demand. The Strategic Housing Market Assessment (SHMA) for the formerly named Shepway District points to net housing completions averaging 333 dwellings per annum between 2001 and 2015. The SHMA (2017) estimates the total population in 2037 to be 126,505 and the Objectively Assessed Need for Shepway is 14,560 dwellings by 2037.

5.2.10 According to the Shepway Housing Strategy (ES Appendix 4.14) 2011-2016, Shepway (now Folkestone and Hythe) has the lowest average household size in Kent and it continues to decline partly driven by the older age profile of the District. The 2014 Shepway Equality and Diversity Profile stated that the average house price is more than six times the average household income in the District.

Otterpool Park

5.2.11 The proposed Development comprises 8,500 new homes. The Housing Strategy (ES Appendix 4.14) which accompanies the Outline Planning Application (OPA) summarises the key features of residential development, which will:

- Deliver a broad overall mix of homes that encourages a diverse community, and allows people to remain in Otterpool through all stages of their life;
- Homes that specifically meet the needs of local people, with a proportion prioritised for those in the local area;
- Homes that meet the needs of keyworkers and those that work in local businesses;
- Homes designed for elderly residents, including smaller homes and homes with care options;
- The potential for innovative housing options such as community led housing and self-build;
- A focus on sustainability and delivering homes that meet changing needs, such as an increase in home working;
- Be phased to maintain a steady rate of delivery on site, with the scale of delivery informed by market demand; and
- be planned in accordance with minimum space standards for all homes.

5.2.12 The proposed housing mix is set out in Table 1.1 from the Housing Strategy (ES Appendix 4.14). The illustrative scheme tenure mix has been produced based on the research set out in the Housing Strategy (ES Appendix 4.14).

Table 20 Tenure mix

Tenure	Type	Minimum Parameter	Maximum Parameter
Affordable Rent	Affordable	10%	15%
Affordable Elderly	Affordable		5%
NHS Step Down	Affordable		1%
Intermediate Elderly	Intermediate	8%	15%
Intermediate Rent	Intermediate		
Shared Ownership	Intermediate		
First Homes	Intermediate	0%	6%
Live / Work	Intermediate	0%	2%

5.2.13 The Strategic Design Principles (ES Appendix 4.3) document for Otterpool Park provides an overview of the site, vision, site-wide design principles and guiding plans. The key design principles are also set out in the Design and Access Statement (ES Appendix 4.16), they include the principle to facilitate high-quality homes that all can enjoy for generations to come – from starter homes to family homes of all sizes, bungalows, self-build, homes for young and old people with extra-care provision, together with all the facilities needed to create and sustain a vibrant community life.

5.2.14 The Housing Strategy (ES Appendix 4.14) states that design guidance will ensure there will be a variety in the housing types in each phase provided to offer choice to suit a variety of lifestyles. It is important that homes are built in a range of styles, sizes and architectural styles, to suit different requirements and preferences, and also in order to create quality of

place. Homes will include apartments in the more accessible locations and close to services and facilities, town houses, terraced housing and family housing in forms which embrace the move towards more sustainable ways of living and will include a significant proportion of smaller homes.

5.2.15 The proposed Development aims to achieve provision of 22% affordable housing / intermediate housing. A phasing plan for affordable provision overall and within the various affordable housing types will be developed with the overall end target of 22% clearly established. The affordable housing will be distributed throughout the development in small groups or clusters. Each Indicative Phase will have a balanced mix of housing which will have regard to the scheme wide mix.

5.2.16 The Housing Strategy (ES Appendix 4.14) outlines segments of housing need including local needs, keyworker demand, key housing gaps that may not typically be filled by the market such as temporary accommodation, wider affordable need and market need. The assessment informed the housing mix for Otterpool Park and the mix was effectively 'topped up' with homes responding to wider affordable and market needs. Each Indicative Phase will offer a balance of residential development in accordance with the Housing Strategy (ES Appendix 4.14).

5.2.17 Residential development includes residential units as well as residential accommodation for older people such as age restricted homes, assisted living homes, extra care facilities, care homes, sheltered housing and care villages.

5.2.18 Otterpool Park has the potential to test delivery of self-build housing on a large scale and the proposed Development will seek to deliver approximately 5% self and custom build, with a proportion in each phase.

5.2.19 The proposed Development will have an aesthetically pleasing townscape in respect of the North Downs and Kent Downs setting. The townscape will comprise of urban higher density housing and supporting uses within the town centre, to enhance viability and liveliness. As the distance from the town centre increases the density of development will decrease and character become increasingly more village style to reflect garden city principles.

Assessment of Health Effects

5.2.20 The assessment of potential health effects for each of the three phases of development is provided in Table 21.

Table 21 Assessment – Housing Design and Affordability

Development Stage	Summary of Health Effects
Construction	A potential indirect effect may relate to take-up of local rental properties by members of the construction workforce, with a resultant increase in rental values / shortage of rental homes for local occupation. However, taking into account factors such as the scale of the regional construction workforce in the South East, the relatively mobile nature of construction workers and the duration over which the proposed Development is planned, the effects are considered to be **minor negative** overall. The effect for vulnerable populations is considered the same as for the general population.
Early occupation Operation	The health effects relating to housing design are considered to be similar for both the early occupation and operational phases. The proposed Development would have a beneficial long-term impact on health through the provision of new housing. The diverse range of housing types and tenures proposed cater for a range of lifestyles, income ranges and life stage, particularly including affordable housing provision and a range of accommodation

Development Stage	Summary of Health Effects
	to suit retired and elderly people. The housing mix reflects local need from engagement undertaken. Vulnerable populations that may be affected positively include the elderly and low-income households. The Folkestone & Hythe district is home to a higher proportion of retired and elderly people than is the case for Kent as a whole. The proposed Development provides a mix of options for older people to meet a range of care needs, including age restricted homes, assisted living homes, extra care facilities, care homes, sheltered housing and care villages. The scale, range and quality of new housing proposed in addition, to the landscape led approach and open space, is considered to have a **major positive** impact on the health and well-being of both early occupiers and longer term residents. The assessment is considered the same for vulnerable populations.

5.3 Access to Healthcare Services and Other Social Infrastructure

5.3.1 This section considers the potential effects on health from access to healthcare services and other social infrastructure (for example education facilities and community services) from the construction, early occupation and operation of the proposed Development as set out in the Community Development and Facilities Strategy (ES Appendix 4.10).

Evidence Review

5.3.2 Access to social infrastructure and services such as health, education and community facilities has been found through research to have a direct positive effect on human health. Leisure activities for example, can have a positive effect on people's physical, social, emotional and cognitive health through prevention, coping (adjustment, remediation, diversion), and transcendence (Ref 1.25).

5.3.3 Social infrastructure provides essential resources to support community wellbeing. Satisfaction with social infrastructure influences individual satisfaction with their local community and contributes to a community's liveability (Ref 1.26).

5.3.4 The impact of new housing developments and an increase in population can be significant for health and care services. Equitable access to a range of both primary and secondary healthcare services can contribute to a reduction in health inequality. Primary care is a vital component of the healthcare system, with over 90% of all healthcare contact occurring in general practitioner (GP) premises; the availability and accessibility of these is therefore, paramount (Ref 1.27).

5.3.5 A multitude of evidence identifies the pressures general practices are under, compounded by an ageing population, increasing numbers of people with complex conditions and lack of funding (Ref 1.28). In recent years, patients across the UK have reported finding it more difficult to access services from their local GP, which can be summarised as access to the right medical professional and receiving the right care, at the right time and place (Ref 1.29).

5.3.6 Evidence from new towns indicates a younger age profile than surrounding communities, with associated health needs. In Cranbrook, a new town in Devon, the general health and care needs of the population relate to this age profile, with a focus on mental health and wellbeing, health-related behaviours, such as smoking, and sexual health, with considerable scope for interventions targeted on the primary prevention of disease and injury.

5.3.7 Digital technology can be an enabler of integrated care and help practices overcome challenges they may be facing (Ref 1.30). Digital tools can enable healthcare practitioners to make better use of their time while maintaining a relationship with patients, and where

patients themselves feel better supported in a way that is more convenient to them. Digital services can support people to live independently for longer, stay healthier and enable patients to have a more active role in their care.

Context

5.3.8 The Community Development and Facilities Strategy (ES Appendix 4.10) produced by Quod to support the OPA provides information relating to education, healthcare and community centre provision in the vicinity of the proposed Development. A summary of the information in relation to access to healthcare services, education and other social infrastructure is provided for context.

5.3.9 In terms of healthcare services, the Strategy identifies that there are five GP surgeries within 5km of the application Site boundary, however, only three of these surgeries have contractual boundaries covering all or part of the Otterpool development area. As of 1st October 2021, these three surgeries have a total of 22,029 registered patients.

5.3.10 In Kent and Medway all the NHS organisations and the Kent and Medway councils have been working together as a sustainability and transformation partnership (STP) since 2016. In April 2021 NHS England formally accredited the Kent and Medway as an Integrated Care System. In June 2021 there were 719 FTE GPs in Kent and Medway of which 294 FTE GPs were providing services in the east Kent area.

5.3.11 There are currently four pharmacies located within 5km of the Site (three in Hythe and one in Lyminge), together with two dentist surgeries (both of which are in Hythe).

5.3.12 The nearest hospitals are the William Harvey Hospital, Ashford and the Royal Victoria Community Hospital, Folkestone. The former operates an Emergency Department and co located Urgent Treatment Centre, as well as a range of specialist care departments. The latter has an Urgent Treatment Centre as well as limited specialist services including diagnostic services, mental health care, children's and adolescent services and other outpatient services.

5.3.13 In terms of education, the Community Development and Facilities Strategy (ES Appendix 4.10) identifies 15 childcare providers and 12 primary schools within 5km of the application Site boundary. The nearest schools to the site are Lympne Church of England Primary School and Sellindge Primary School. In terms of early years provision, the nearest childcare providers are Little Learners Pre-School in Sellindge and the Punch and Judy Play Group in Lympne. There are currently 13 secondary schools within both Ashford Borough Council (ABC) and Folkestone & Hythe District Council (F&HDC). The closest school to the site is Brockhill Park Performing Arts College on the outskirts of Hythe. The nearest further education college to the application site is East Kent College's campus in Folkestone.

5.3.14 Across F&HDC and ABC, there are currently three (state-funded) Special Education Need (SEN) facilities (also referred to as Special Educational Needs and Disabilities (SEND)).

5.3.15 Finally, there are several local community halls located in nearby areas. The two nearest halls are the Sellindge Village Hall and the Lympne Village Hall, run by Sellindge and Lympne Parish Councils respectively and available to hire for community uses. Sellindge Sports and Social club also hosts local activities. There are also places of worship belonging to multiple congregations, including several historic parish churches.

Otterpool Park

5.3.16 Otterpool Park is intended to be self-sufficient in all neighbourhood community facilities, so that health services, schools and community resources are all within walking distance or a local bus ride as detailed in the Community Development and Facilities Strategy (ES Appendix 4.10).

5.3.17 The new population for Otterpool Park will generate a requirement for community infrastructure (notably education, healthcare and community facilities, and open space / play provision). This includes:

- In terms of social care, Otterpool Park is expected to deliver specialist homes for older people; the extended services at the new health centre are expected to include care services for older people
- Up to 67,000sqm GEA of education and community facilities floorspace is proposed. This floorspace includes schools (primary, secondary and 6th form), nurseries and crèches, health centres, places of worship and other non-residential institutions such as libraries and community centres (use class E and F).
- Up to seven primary schools, each with up to 2 or 3 forms of entry (FE), each with an integrated nursery/early years facility, will be delivered in a phased manner to keep pace with education need across the development. The monitoring and triggers process will be defined in the S106 agreement.
- Secondary provision (use class F) will consist of one school up to 10FE (including 6th form), which may be delivered in one or more phases. Safeguarding of land for a further 6FE is also proposed.
- Special Educational Need and Disability provision (SEN) (use class F) will be delivered (likely to be up to 84 spaces). This will either be as part of a primary or secondary school, or standalone.

5.3.18 The school year starts in September, so a school will first become operational, and all subsequent phases will become operational, in the September immediately after the trigger point. The trigger point will be identified by a formal Education Review Mechanism, to ensure that the Otterpool Park will only deliver enough school places to meet the needs of children on-site as the community grows. Where it can be demonstrated through the monitoring procedures that no further school places are needed, delivery of further school sites or floorspace will not be triggered. The trigger points will be agreed in the Section 106 legal agreement.

5.3.19 The exact model for healthcare provision at Otterpool Park has not been decided at this early stage and will be the subject of discussion and agreement between the LLP, F&HDC and the CCG as part of the S106 agreement and going forward. Phasing options include:

- Before c. year 3 or 4 of construction, a GP could operate temporarily from another building (e.g. a community or commercial building) provided that the facilities and setting are appropriate to provide the quality of service and care required.
- A portion of the health centre could be built the early years, with space that is not required for healthcare to be let out on a short-term lease to other retail or commercial uses.
- Expansion of existing GP Surgery facilities could meet some or all of Otterpool's needs for some years.
- Delivery of a wider range of additional services (education, training, social care, specialist care) etc could support the sustainability of the surgery in the early years.

Assessment of Health Effects

5.3.20 The assessment of potential health effects for each of the three phases of development is summarised in Table 22.

Table 22 Assessment – Access to Healthcare Services and other Social Infrastructure

Development Phase	Summary of Health Effects
Construction	No healthcare or other social infrastructure facilities are planned to be affected by construction activities. Accessibility by car and bus to community services and facilities will not be affected during construction. The effect on vulnerable populations who may be more dependent on car use and public transport, including people with limited mobility, will therefore be minimised. Any disruption to access as a result of disruption to existing road or footpath networks would be temporary in nature and not significant. There is potential for increased demand on local healthcare services as a result of the presence of temporary construction workers, although this effect is anticipated to be minor given the long build out of the development meaning that the number of workers at the development who may demand local healthcare services at any particular time will not be significant in the context of overall demand, noting in particular that large construction sites have their own on-site welfare services and home based construction workers will stay on the GP register of their home GP. The effects of the construction phase of the development results in an overall **minor negative** health effect on access to healthcare services and other social infrastructure including vulnerable populations.
Early occupation	The potential health implications of early occupation are primarily related to mental health issues; these can be associated with a lack of a sense of belonging, lack of opportunities for community interaction and stresses created by ongoing construction activity (for example noise or amenity issues). All age groups and backgrounds are potentially vulnerable to these issues. The phasing of the proposed Development is not yet fixed, however there is a commitment to ensure that each phase is in its own right and incorporate opportunities for community interaction at the earliest stage including the provision of education and community space. The Community Development and Facilities Strategy (ES Appendix 4.10) is going to be submitted as part of the OPA. This document contains the principles for a future Community Development Strategy (which will itself ben submitted at Tier 2). A settlement of this scale may attract a disproportionate number of children moving schools in the middle of a phase of education. To address this, schools could have multiple entry points and multi-age groups in the early phases of development. The exact health model for Otterpool Park has not been decided at this early stage and will be the subject of further discussion and agreement. The early occupation phase of the development results in an overall **minor positive** effect on access to healthcare services and other social infrastructure. The early provision of services and facilities and use of the Sellindge Surgery as outlined above as mitigation, together with management of construction impacts through the Code of Construction Practice (CoCP) are anticipated to mitigate against further negative impacts. The assessment is considered the same for vulnerable populations.
Operation	At Otterpool, there is an opportunity to provide an integrated model of community health services. The exact model for delivering these services will depend on the strategic plans, objectives and funding available to the CCGs at the time of detailed planning permission and delivery. It is expected that, whatever model the healthcare offer might take, it will also include dentists, opticians and pharmacies in a mixture of private and NHS settings according to the NHS licencing programme for these facilities (which includes an up to date needs assessment). The location, scale and phase of community facilities will be included at Tier 2 (applicable to each phase at the point that detailed masterplans are designed) and will inform the content of reserved matters applications within Tier 3.

Development Phase	Summary of Health Effects
	There are beneficial health impacts from the opportunities provided by increased social interaction presented by new community provision, and education opportunities for local residents provided by the new schools and early years provision. Vulnerable populations that may benefit from new facilities include children and the elderly. Overall, the impacts are likely to be beneficial and long-term; the provision of new education opportunities will have a positive effect, as will the provision of new opportunities for social interaction. The health effects arising from access to healthcare services and other social infrastructure are considered to be **major positive** including on vulnerable populations.

5.4 Access to Open Space and Nature

5.4.1 This section considers the potential effects on health from changes in access to open space and nature associated with the construction, early occupation and operation of the proposed Development.

Evidence Review

5.4.2 Access to green space and public amenities such as parks, recreational facilities and social and cultural services benefit the well-being of local residents, providing opportunities for health-promoting activity, physical exercise, and meeting places. Green infrastructure is a network of multi-functional green space and other green features, urban and rural, which can deliver quality of life and environmental benefits for communities. It is not simply an alternative description for conventional open space. It includes parks, open spaces, playing fields, woodlands – and also street trees, allotments, private gardens, green roofs and walls, sustainable drainage systems (SuDS) and soils. It includes rivers, streams, canals and other water bodies, sometimes called 'blue infrastructure' (Ref 1.31).

5.4.3 The evidence shows direct links between natural environments, green infrastructure and human health at the individual and population level (Ref 1.32).

5.4.4 Living in greener environments is associated with a number of positive health outcomes, including reduced mortality (specifically for men, infants and lower socio-economic groups), and there is evidence that health inequalities in mortality may be reduced by greener living environments.

5.4.5 There is strong and consistent evidence that mental health and wellbeing is improved from exposure to natural environments, including reductions in stress, fatigue, anxiety and depression, with evidence that these benefits may be most significant for marginalised groups. Accessing parks and green space also supports wellbeing by providing places for residents to make new connections and build relationships with friends and family (Ref 1.33), building social capital, a significant determinant of health and wellbeing. In addition, the more greenspace in one's environment is associated with fewer feelings of loneliness and less of a perceived shortage of social support. Studies have shown that there is a strong relationship between the amount of green space around a person's home and their feelings of life satisfaction, happiness and self-worth, in particular green space within 300m of the home (Ref 1.34).

5.4.6 Natural environments are associated with and may support higher levels of physical activity and therefore physical health. Studies have found that specific natural environments, such as woodlands, gardens, parks, grassland and farmland, are supportive of vigorous activity, but this needs to be considered alongside issues of access and a more even distribution of green infrastructure. There is also evidence to suggest that increased access to green

infrastructure lowers the likelihood of obesity as rates of obesity tend to be lower in populations living in greener environments, but this area of research also needs further work (Ref 1.35).

5.4.7 Green infrastructure supports air quality by limiting exposure to and production of air pollution (Ref 1.36). Current research indicates that vegetation has the potential to clean a significant amount of air pollutants, such as particulate matter and ground level ozone (smog), which can help prevent the onset of cancer, cardiovascular disease and respiratory difficulties. Planting urban trees can help to reduce energy use, remove air pollution by capturing both gaseous and particulate airborne pollutants, reduce storm water runoff and improve water quality, a scenario predicted to increase as the earth's temperature warms. We can also now expect more extreme heat events as a result of climate change, and natural elements across the landscape, such as trees and vegetation, can have cooling effects through parks, urban agriculture and bodies of water. This is important to health and wellbeing, as extreme heat events are linked to illness and death from cardiovascular, respiratory and cerebrovascular causes.

Context

5.4.8 The Shepway Open Space Strategy published in 2017 (Ref 1.92) identifies existing open space provision, stating that the quality and value of publicly accessible open space across the former Shepway District (now Folkestone and Hythe) is relatively good, with a greater quantity of open space than surrounding local authorities. The Shepway Play Area Review (June 2017) (Ref 1.93) was prepared to help define the desired level of play provision across the District in terms of quantity, quality and accessibility. The review highlights that the western half of the District away from the more densely populated coastal towns experiences some lack of play provision. Ten wards within the District fail to meet the Fields in Trust (FiT) quantity benchmark with regard to the provision of play areas, including Hythe and North Downs West (wards within which the proposed Development sits). Appendix B illustrates the site area in relation to primary open space typologies in the wider area.

5.4.9 There are several PRoW that dissect the application Site. A PRoW survey was undertaken in April 2018 to determine condition of these routes and from that to identify likely level of recreational usage. The survey identified a relatively low level of usage of these routes, and primarily for local uses such as dog walking / fitness purposes.

5.4.10 The Royal Military Canal stretches in an east-west direction between the western edge of Folkestone and the northern edge of Rye and is approximately 3km to the south of the Site. The footpath along the canal has been upgraded at West Hythe to enable use by cyclists and equestrians in addition to pedestrians; over 61,000 visits were recorded along the new route in a thirteen-month period. The Saxon Shore Way follows the route of the Royal Military Canal in this location.

5.4.11 To the south of the Site is the Kent Downs Area of Outstanding Natural Beauty (AONB). A visitor survey undertaken by the AONB Unit identified that the main motivations for visiting the Kent Downs are for its beauty and tranquillity, with walking being the main activity. Key routes within the AONB include the North Downs Way National Trail, a long-distance footpath extending through Surrey to Dover and which is 156 miles in length. Sections of the route nearest to the proposed Development extend from the town of Wye to Dover, passing along the Etchinghill Escarpment. Other walks and trails in the vicinity of the Site include the Tolsford Trek, which links the Elham Valley Way, Saxon Shore Way and North Downs Way.

5.4.12 Further afield from the Site is the Dungeness complex (including Romney Marsh and Rye Bay). The area receives a high number of visitors, approximately 550,000 visits are made per annum, with the RSPB reserve receiving approximately 30,000 visitors.

Otterpool Park

5.4.13 The population generated as a result of the proposed Development will create additional demand for play areas, recreational open space and sports facilities. A range of open space, sports and play area provision has been incorporated into the masterplan design.

5.4.14 The open spaces will provide a range of functions, many of which will contribute toward the green and blue infrastructure of the garden settlement, including but not limited to:

- Open space setting for heritage, connectivity and habitat for wildlife, existing trees and hedgerows;
- Habitats;
- Buffers to landscapes and habitats (both created and retained);
- Sustainable drainage retention basins, wetlands, ponds and swales;
- Landscape tree belts to assist in the integration development in views into, out of and through the site;
- Shared amenity space;
- Play;
- Food production;
- School sports playing fields;
- Public sports and recreation;
- Footpaths and cycle paths;
- Allotments; and
- Green burial space.

5.4.15 These multifunctional open spaces comprise approximately 200 hectares in total and range in size up to 35 hectares and together comprise approximately 80% of the total landscape open space. The Green Infrastructure Strategy (ES Appendix 4.11) sets out the eleven principles for the green infrastructure across the proposed Development, promoting multi-functionality and enhancement of the natural environment to enrich the benefits to human society.

5.4.16 The incorporation of green infrastructure, open space and a variety of habitats and landscapes forms an intrinsic part of the design of Otterpool Park, including:

- a variety of woodlands, wetlands, meadows, allotments, and recreation areas all connected by publicly accessible green corridors with retained and enhanced tree belts, hedgerows and water courses.
- a landscaped public open space to create a setting for Westenhanger Castle.
- creation of a Woodland Country Park at the centre of the site, between Otterpool Manor, Upper Otterpool Farm and the A20, provides an opportunity to create an open space for informal recreation.
- use of the East Stour River corridor to incorporate both formal and informal walking and cycling routes connecting other areas of open space and leisure / sports provision.
- creation of a landscape buffer between the proposed Development and the village of Lympne, with opportunities here for informal recreation, walking and horse-riding, and which links to existing the Saxon Shore Way long distance path to the east and south
- a Heritage Trail is also proposed within the Site, linking features of interest including the World War II pill box, Lympne Airfield features, the Bronze Age barrows at Sellindge and Westenhanger Castle.

5.4.17 According to the Green Infrastructure Strategy (ES Appendix 4.11) proposed structural planting schedule, the areas for selection of advance planting are in accordance with F&HDC Core Strategy Review Policy SS7 clause 1bi):

- prioritisation of areas of visual prominence in views from the AONB
- assistance with providing continuity of biodiversity value during construction
- assistance with preventing coalescence with Lympne
- supporting the separation of new neighbourhoods

Assessment of Health Effects

5.4.18 The assessment of potential health effects for each of the three phases of development is summarised in Table 23.

Table 23 Assessment – Access to Open Space and Nature

Development Stage	Summary of Health Effects
Construction	Public footpaths within the application boundary are planned to remain operational during the construction of the proposed Development. Any disruption to the existing road and footpath networks during construction, thereby impacting upon access to open space and nature, would be temporary in nature. All age groups and backgrounds are potentially vulnerable to these issues. The effects of the construction phase of the development results in an overall **minor negative** effect due to temporary severance**.** The health effect is considered the same for vulnerable populations.
Early occupation	During the early build out of the development, open space provision is planned to be delivered alongside new homes, services and facilities. Notably, it is proposed that the town park proposed to the south of Westenhanger Castle is developed in the first five years. The effects during early occupation are therefore regarded to be the same as during operation providing a **minor positive** health benefit to residents including on vulnerable populations.
Operation	The masterplan proposals have been designed to complement and, where possible, enhance existing PRoW and bridleways within the application Site and to link in with external routes adjoining the Site. Proposed new walking and cycling routes will link into the existing footpath network. As such, existing PRoW and bridleways are expected to experience an increase in usage levels due to increased accessibility and an increase in local population. The incorporation of green infrastructure, open space and a variety of habitats and landscapes forms an intrinsic part of the design of Otterpool Park. The existing areas of vegetation and location of rich biodiversity provide opportunity for expansion and creation within the Green Infrastructure Strategy (ES Appendix 4.11). There is likely to be a beneficial and long-term impact on health and well-being as a result of improved access to open space and nature from the proposed Development. Vulnerable populations that may particularly benefit from this effect include children and low-income households, through the creation of walkable neighbourhoods and improved footpath links. The health impact is thereby considered to be **moderate positive** for access to open space and nature including on vulnerable populations.

5.5 Accessibility and Active Travel

5.5.1 This section considers the potential effects on health as a result of accessibility and active travel associated with the construction, early occupation and operation of the proposed Development. The topic covers a range of issues, including walking and cycling, access to public transport, and road safety.

Evidence Review

5.5.2 Provision and accessibility by a variety of transport means is fundamental to access to services and social opportunities. Transport barriers are not experienced equally through the population and are impacted by social exclusion, access to a car or other private vehicle and the skills and confidence to use available transport.

5.5.3 Physical inactivity is the fourth leading risk factor for death worldwide and contributes to one in six deaths in the UK. A lack of physical activity is harmful, contributing to an increased risk of diabetes, cardiovascular disease and cancer. To address this problem, the NHS recommends that adults carry out 150 minutes of moderate aerobic activity per week, such as cycling and brisk walking, or 75 minutes of vigorous activities such as running or sport (Ref 1.37). Regular physical activity reduces the risk of depression and has positive benefits for mental health including reduced anxiety, and enhanced mood and self-esteem (Ref 1.38). Evidence highlights that built environment features influence cognitive activity and cognitive health, particularly in later life (Ref 1.39).

5.5.4 Creating an environment where people actively choose to walk and cycle as part of everyday life can have a significant impact on public health and may reduce inequalities. There is also a link between socio-economic grouping, health and active travel. For example, there are inequalities in obesity rates between different socio-economic groups, therefore encouraging active travel within these socio-economic groups can thereby improve health.

5.5.5 Public Health England (2016) has provided a briefing note for local authorities on promoting active travel (Ref 1.40). The guide looks at the impact of current transport systems and sets out the many benefits of increasing physical activity through active travel. It suggests that while motorised road transport has a role in supporting the economy, a rebalancing of our travel system is needed.

5.5.6 Travel behaviour can also be affected by factors associated with the design and layout of development, for example the accessibility of travel infrastructure. Evidence suggests that when adults reported having appropriately located shops, public transport, pavements, bicycle facilities and recreational facilities they were 20-50% more likely to meet physical activity guidelines than if they lacked these amenities (Ref 1.41).

5.5.7 Poor public transport provision can lead to social exclusion, contributing negatively to quality of life and health and equality of outcome. Vulnerable populations that may be affected by poor public transport provision include children and young people, the elderly, those without access to a car, people on low-incomes and women, presenting a barrier to jobs, health services, education, shops and other services (Ref 1.42).

5.5.8 Recently published research (2020) from Transport for New Homes concludes that despite the vision for Garden Communities to be vibrant mixed-use communities, the 20 new generation garden towns and villages studied were creating car dependent households with excess traffic congestion (Ref 1.43). This was due to a range of factors including layout, lack of safe routes in and out for active travel, lack of local facilities, under-funded public transport and a high proportion of land devoted to parking. This illustrates that the reality can fail to be aligned with the vision. Measures to secure this vision are set out within the Framework Travel Plan (ES Appendix 16.6) and Transport Strategy (ES Appendix 16.5).

Context

5.5.9 Folkestone & Hythe District Council's Places and Policies Local Plan identifies the heavy dependency on the private car, and the need to promote development which reduces car dependency, by ensuring employment opportunities, health services, educational facilities, shops and recreational opportunities are accessible by foot, cycle and public transport.

5.5.10 The Kent PRoW Improvement Plan (2018) aims to provide a high quality, well-maintained PROW network, that is well used and enjoyed, thereby supporting the Kent economy and encouraging active lifestyle and sustainable travel choices (Ref 1.44). Kent's Active Travel Strategy (2017) aims to make active travel an attractive and realistic choice for short journeys in Kent, by developing and promoting accessible, safer and well-planned active travel opportunities.

5.5.11 The existing walking and cycling network across the site and in the local area is detailed within the Environmental Statement which accompanies the OPA. A summary of the existing walking and cycling provision along key routes within the site is as follows:

- footpath provision along the A20 Ashford Road varies and there is a lack of formal pedestrian crossing facilities along its length with the exception of a signalised pedestrian crossing on the southern arm of the junction with Otterpool Lane. There is no infrastructure provided for cyclists.
- there are no formal footpaths on either side of Otterpool Lane. With the exception of the signal-controlled pedestrian crossing at the junction with the A20, there are no pedestrian crossing facilities or traffic calming measures along the length of the road.
- Stone Street provides access for pedestrians and cyclists to Lympne. A footpath is provided on at least one side of the road for its entire length.
- there is no footway provision along the length of the A261 Hythe Road until it meets Aldington Road.

5.5.12 The coastal National Cycle Network Route 2 lies approximately 1km south of the southern boundary of the site and is a popular long-distance recreational route following the English Channel coastline.

5.5.13 In terms of public transport, there are multiple existing bus stops located in proximity to the site. Bus stops are located on the strategic and local routes within the area, namely along the A20 Ashford Road, B2067 Aldington Road and Stone Street between Aldington Road and Ashford Road. The 10/ 10A bus service provides a regular bus service between Folkestone and Ashford and has the highest frequency (hourly, Monday to Friday) of all the bus services in the Otterpool Park area.

5.5.14 Westenhanger Railway Station, located in the north-eastern corner of the site area, is strategically located on the South-Eastern Railway Line connecting Ashford and Dover. Services include hourly (two trains an hour at certain times) southbound services into Folkestone. Northbound, there is a half hourly service to Ashford, from where high speed Eurostar (HS1) as well as regular services to London depart as detailed in the Framework Travel Plan (ES Appendix 16.6).

5.5.15 Personal Injury Accident (PIA) data has been obtained from the Highways England collision database for the five-year period to the end of December 2019. The data shows that a total of 249 recorded accidents took place within the study area over the five-year period. Of those, the vast majority of accidents, totalling 193, were of slight severity, 51 serious and five of which fatal. Interrogation of the accident data shows that during the study period ten accidents involved a pedestrian, eleven involved pedal cyclists and 38 involved motorcyclists.

Otterpool Park

5.5.16 The Otterpool Park development and associated access and travel strategy will provide residents, employees and visitors with an attractive and comprehensive network of sustainable travel opportunities to provide viable alternatives to travel by private car.

5.5.17 The Transport Strategy (ES Appendix 16.5) for Otterpool Park includes the following principles of relevance to accessibility and active travel:

- create walkable neighbourhoods and a high street highly accessible by walking and cycling
- provide strong walking, cycling and bus connections to the rail station, employment, high street, local centres and schools from the residential areas
- provide connectivity by walking, cycling and bridleways into the surrounding countryside and existing communities
- ensure a high level of connectivity to and from Otterpool Park within the sub-region by frequent and high-quality public transport
- provide for parking requirements for cars and bicycles
- implement a range of sustainable travel behavioural measures to encourage use of sustainable modes.

5.5.18 The design of the proposed Development provides for walkable neighbourhoods, with the majority of all homes within easy walking or cycling distances of facilities and services, as follows:

- 400 metres to a local play area
- 700 metres to a multi use games area
- 800 metres to a primary school and local centre
- 1,000 metres to allotments and community orchards, sports pitches and a NEAP (neighbourhood equipped play area).

5.5.19 Walkable neighbourhoods create the opportunity for containing trips within the site and for achieving high levels of walking and cycling usage.

5.5.20 The aim of the walking and cycling strategy is to create a highly connective and permeable network of routes that support the anticipated high-demand from the resident and working Otterpool Park population, whilst bringing benefits to the existing populations in adjacent settlements and leisure users of existing footpaths and bridleways.

5.5.21 All walking and cycling routes will be of a high-quality with all-weather surfacing, well-lit and easily maintained. Routes will be through green spaces, along the river corridor, or on well-designed streets to make them a more attractive option and more direct than using the car. The layout of homes and routes will ensure natural surveillance to increase user safety.

5.5.22 In relation to public transport, the strategy is to provide an accessible, frequent and reliable service for residents of Otterpool Park to connect to local destinations including local centres, schools, employment sites and Westenhanger Station, and to wider destinations such as Ashford and Hythe.

5.5.23 Bus stops are planned within 400 metres of the majority of homes. Bus service provision is proposed at 30-minute frequencies from early occupation. By the time of full development, it is envisaged that there would be a 15-minute frequency service, increasing to every 10 minutes once fully commercial. During early occupation enhancement to existing services would take place, with additional buses added to increase the frequency and provide a bus service through the development.

Assessment of Health Effects

5.5.24 The assessment of potential health effects on accessibility and active travel for each of the three phases of development is summarised in Table 24.

Table 24 Assessment – Accessibility and Active Travel

Development Stage	Summary of Health Effects
Construction	There may be potential impacts on pedestrian amenity and public safety for existing residents due to the increase in vehicle flows and the change in flow composition i.e. an increase in heavy goods vehicles travelling to and from site. Construction traffic will be restricted from travelling past schools and where this is not possible, vehicles will be restricted during start and closing times. A Construction Traffic Management Plan would be produced to mitigate effects, effectively routing construction vehicles away from sensitive residential areas where possible. The effects during this stage are considered to be **minor negative**. The health effect is considered the same for vulnerable populations.
Early occupation	The proposed Development aims to connect communities by opening up movement and access corridors by providing new infrastructure to schools, local centres and public transport links to be shared between existing settlements and the new community at Otterpool Park. Bus routes will be developed through the build out of the development in conjunction with bus operators. An improved walking and cycling connection along the A20 will be provided as part of the early build out of the development. Walkable neighbourhoods will be created from the outset. The effects during this stage are considered to be **minor positive** including on vulnerable populations.
Operation	The proposed Development seeks to maximise opportunities to create a walkable community by promoting sustainable travel and ensuring that all homes have facilities within walking distance (particularly primary schools), and attractive walking and cycling routes to all key destinations to encourage people to be active rather than use a private car. Pedestrian severance occurs when there is difficulty experienced in crossing a heavily trafficked road; the transport chapter of the Environmental Statement identifies eight road links that are expected to experience a 30% or greater traffic flow increase. For affected links, mitigation measures are proposed to reduce severance and improve pedestrian amenity as necessary, including where dedicated pedestrian crossing facilities such as zebra or signalised crossings are provided on key desire lines, such as the walk from Lympne to the Village Hall. The proposed Development incorporates new footpaths and cycleways, including links with the existing network of Public Rights of Way, thus enabling the local population to walk and cycle to local destinations, including links with nearby residential areas, through the creation of a range of safe, secure routes. The provision of regular public transport from well-planned and located bus stops, will enable local residents to make sustainable travel choices and reduce dependence on the private car. Vulnerable populations that may benefit particularly include young people, through the provision of appropriate walking and cycling routes to school and community facilities. The proposed development would therefore have a **moderate positive** long-term impact on the health of local residents, including on vulnerable populations, by virtue of improvements in accessibility and active travel.

5.6 Crime Reduction and Community Safety

5.6.1 This section considers the potential effects on health as a result of changes in crime and community safety associated with the construction, early occupation and full operation of the proposed Development.

Evidence Review

5.6.2 It is widely reported that the fear and perception of crime varies for persons of different genders (Ref 1.45), age (Ref 1.46) and level of deprivation (Ref 1.47). One of the lesser

documented factors affecting a person's sense of vulnerability and fear of crime is income inequality (Ref 1.48).

5.6.3 Fear of crime and perception of safety can be an important factor influencing people's daily lives – for example their travel choices. Women typically experience greater levels of concern over personal safety than do men and are more likely to avoid open spaces on their own for example. Personal safety may also affect decisions to walk or cycle. This has implications for public health directly (fear of crime) and indirectly (decrease in active lifestyle).

5.6.4 'New urbanism' – widely advocated across planning policy – is expressed through high quality design principles promoting pedestrian friendly, mixed-used developments which are reported to provide other social and wellbeing benefits including enhanced safety from crime. One 2016 study concluded that following new urbanism policy compliance the overall level of crime reduced, highlighting that planning policy can indeed deliver social and wellbeing benefits for residents of new developments such as reduced crime levels and perceived fear of crime, although it is acknowledged that the extent of change is variable (Ref 1.49).

Context

5.6.5 The Kent Police website identities crime and community safety statistics for the area (Ref 1.50). A review of crime maps for neighbourhoods in the vicinity of the proposed Development has shown that the number of recorded incidents is relatively low in this area and has not changed significantly over the last three years. Local policing priorities for the Ashford and former Shepway areas (now Folkestone and Hythe) includes support for domestic abuse victims, to reduce drug related incidents and decrease anti-social behaviour and hate crime.

5.6.6 A review of crime maps provided by Kent Police for neighbourhoods in the vicinity of the proposed Development revealed that existing levels of crime are relatively low in areas outside of the main towns and settlements. Table 25 shows the number of incidents by area for July 2021 – the number of incidents in the same month in previous years has remained roughly similar.

Table 25 Crime Incidents by Neighbourhood

Neighbourhood	Number of Reported Incidents (July 2021)
Shepway – Lympne and Stanford	10
Shepway – Tolsford	18
Shepway – North Downs West	12
Ashford – Saxon Shore	35

5.6.7 Folkestone & Hythe District has a higher proportion of residents aged 45-64 and retired population than is the case for other areas; older population groups can feel a greater sense of vulnerability in relation to community safety and fear of crime.

5.6.8 Detailed guidance on issues of security and safety in the public realm can be found in various national and local policy documents (for example the Kent Design Guide Supplementary Planning Document (SPD) (2005/06)). At national level, the NPPF (2021) notes that crime,

disorder and fear of crime has the potential to undermine quality of life and community cohesion. Further advice and guidance is provided by the Safer Kent initiative, a partnership between the police, local authorities, the fire service and health authorities.

Otterpool Park

5.6.9 The proposed Development will be designed in such a way as to reduce crime and the fear of crime through appropriate design, security and landscaping measures, including well-lit public realm and the positioning of buildings to ensure the natural surveillance of public areas and routes.

5.6.10 Specifically, the Design and Access Statement (ES Appendix 4.16) which accompanies the OPA states that:

- The layout of homes and routes will ensure natural surveillance to increase user safety
- Healthy Streets Approach – promoting healthy lifestyle through active travel, sustainable choices, safety and connectivity
- The masterplan will create a place with social interconnectivity and walkable neighbourhoods, with a mix of uses distributed across the development to promote vibrancy
- Community routes and footpaths should meander through a variety of environments, should offer the user a varied experience of the landscape and should increase activity and natural surveillance where beneficial.

Assessment of Health Effects

5.6.11 The assessment of potential health effects on crime reduction and community safety for each of the three phases of development is summarised in Table 26.

Table 26 Assessment – Crime Reduction and Community Safety

Development Phase	Summary of Health Effects
Construction	The presence of a construction workforce for a major project can have an impact on the existing community as a result of fear of increased crime rates/antisocial behaviour. Vulnerable populations include the elderly for whom fear of crime may be heightened during the construction phase, thus having a potential effect on mental well-being. The CoCP prepared for the project would include information about construction activities and how this will be communicated to existing residents. The CoCP would also include information about mitigation measures that may assist with promoting an enhanced feeling of security during the construction phase (for example ensuring construction areas are well-lit and the considerate contractor's scheme). During the construction phase, the proposed Development results in an overall **minor negative** effect on the health of local residents. The health effect on vulnerable groups is considered to be the same following embedded mitigation.
Early occupation	During early occupation, there is the potential for an increase in anti-social behaviour as a result of several factors – there may be a perceived 'lack of things to do' for younger populations, combined with a lack of community cohesion in the very early phases. The phasing of the proposed Development is such that a proportion of play space, strategic park provision and playing fields are provided during early phases. Equally, provision of community space and primary school provision (which has an important role to play in terms of developing community cohesion through provision of a social network) takes place during Phase 1. Construction will continue throughout the early occupation period, and therefore the issues associated with fear of crime and construction activities highlighted earlier are likely to continue, mitigated through measures outlined in the CoCP. As a result of these combined factors, the proposed Development results in an overall **minor negative** effect, on the health of new and existing local residents during the initial early occupation phase, although this is likely to improve over time. The health effect on vulnerable groups is considered to be the same following embedded mitigation.
Operation	The incorporation of good design into the proposed Development will ensure that crime and the fear of crime of crime is minimised through a variety of measures. This will potentially lead to health benefits for both new and existing local residents who should feel able to access open space and make healthy travel choices due to a perception of safety in their local environment. Over time, community cohesion and the development of social networks will contribute to feelings of community safety. The proposed Development is therefore likely to have a **moderate positive** effect on the health of new and existing residents. The health effect on vulnerable groups is considered to be the same.

5.7 Access to Healthy Food

5.7.1 This section considers the health implications of the proposed Development on access to healthy food, during construction, early occupation and operational phases.

Evidence Review

5.7.2 The Government's obesity strategy 'Healthy Lives, Healthy People; a call to action on obesity in England' has identified that 'overweight and obesity' represent probably the most widespread threat to health and wellbeing (Ref 1.51). In England, 61% of adults are overweight or obese, and 23% of 4-5-year olds and 33% of 10-11-year-olds. The level of obesity in England, along with the rest of the UK, ranks as one of the most obese nations in Europe (Ref 1.52).

5.7.3 The food environment plays an important role in promoting a healthy diet and those who live in areas of deprivation, vulnerable groups such as those on a low income, children, young people and certain ethnicities are less likely to achieve a healthy and balanced diet. Making healthier foods more affordable, accessible and available as part of the wider food environment forms part of the whole system approach to a healthy diet. A poor diet is now one of the biggest avoidable causes of ill health in England, associated with heart disease, stroke, cancers and type 2 diabetes (Ref 1.53).

5.7.4 Public health researchers have noted that urban places have a strong influence on what people eat. Obesity is a complex problem, found primarily in populations with an unhealthy diet and lack of physical activity. Healthy eating messages such as '5 a day' which promote the importance of eating at least five portions of fruit and vegetables daily to the general public are as important to older people as to other age groups. The EPIC-Norfolk study found that people aged 45-79 with a low consumption of fruit and vegetables have a 30% increase in risk of death.

5.7.5 There is a growing body of evidence on the association between exposure to fast food outlets and obesity levels. The prevalence of children classified as being overweight or obese is increasing nationally. Children living close to fast food outlets are more likely to be overweight or obese. The Centre for Diet and Activity Research (CEDAR) looked at weight data from more than a million children and compared it with the availability of unhealthy food from outlets. The results show that older children living in more deprived areas, which have a higher density of unhealthy food outlets, are more likely to be obese, however, the association reversed in areas with healthy food options available (Ref 1.54). This research highlights the importance of the food environment, particularly around schools where it has the potential to influence children's food-purchasing habits and thereby influence longer-term lifestyle choices. Children who eat school meals tend to consume a healthier diet than those who eat packed lunches or takeaway meals (Ref 1.55). A number of local authorities are using planning and regulatory measures to restrict the development of new fast-food premises within 400m of schools. St Helens Council has implemented a wide-ranging policy that grants planning approval only 'within identified centres, or beyond a 400m exclusion zone around any primary or secondary school and sixth form college either within or outside local education authority control' (Ref 1.56). Most local authorities have used a distance of 400m to define boundaries of their fast-food exclusion zone, as this is thought to equate to a walking time of approximately five minutes.

5.7.6 Research of moderate quality indicates that increased access to healthy, affordable food for the general population (e.g., food in schools, neighbourhood retail provision) is associated with improved attitudes towards healthy eating and healthier food purchasing behaviour) (Ref 1.57). Emerging new evidence shows positive links between urban agriculture and improved attitudes to healthy food, including increased fruit and vegetable consumption (Ref 1.58). Reviews of academic studies from the UK and abroad, concluded that food growing

programmes in schools can have positive impacts on pupil nutrition and attitudes towards healthy eating, specifically related to the willingness to try new foods and taste preferences (Ref 1.59). In addition, gardening and food growing is recognised as moderate intensity physical activity and counts towards physical activity targets for adults (150 minutes over a week in bouts of ten minutes or more) (Ref 1.60). Calorie calculators provide estimates of calorie expenditure for different gardening activities, indicating that garden work burns around 250 - 500 calories per hour, depending on the level intensity of the activity (e.g. Boots Diet online calorie burn calculator, 2014).

5.7.7 The Retail Impact Assessment (ES Appendix 11.2) prepared for the proposed Development has considered centres within a ten minute drive time of the site. The centres of Folkestone, Hythe and Cheriton each have a number of public houses and A3 units, including cafes and takeaways. The major food stores are:

- **Folkestone** – Asda (Bouverie Place), Sainsbury's (Bouverie Road West) and Lidl (Shellons Street).
- **Hythe** – Sainsbury's (Military Road), Waitrose (Prospect Road) and Aldi (High Street).
- **Out-of-centre Food stores -** Tesco (Cheriton High Street), Sainsbury's (West Park Farm) and Morrisons (Cheriton Road – whilst noting that the store was subject to a major fire in November 2018).

5.7.8 The village of Lympne includes a limited number of eating / drinking establishments, including a pub and a cafe/restaurant at Lympne Castle. .

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5.7.9 The proposed Development includes up to 29,000 sqm (gross) mixed retail and related uses such as shops, professional services, restaurants and cafes. All homes are planned to be within 800 metres of a local centre, each of which will include a range of retail and food shopping and thereby accessible food buying locations. The design of the proposed Development is such that trips beyond the settlement to undertake regular food shopping should not be necessary.

5.7.10 To encourage healthy eating community allotments and orchards would be provided for growing local food. Allotments also provide wider health and wellbeing benefits through education, visual interest, community cohesion and environmental awareness. The Green Infrastructure Strategy (ES Appendix 4.11) also includes provision of up to 9.75ha of allotments and community orchards, predominantly in the south and eastern areas of the proposed Development.

Assessment of Health Effects

5.7.11 The assessment of potential health effects for each of the three phases of development is summarised in Table 27.

Table 27 Assessment – Access to Healthy Food

Development Stage	Summary of Health Effects
Construction	During construction, there are not anticipated to be any impacts on existing food outlets or community allotments in terms of either land-take or loss of access. Existing residents of villages within the study area will therefore be able to continue to access food choices in much the same way as at present. The health effect of the proposed Development in terms of access to healthy food choices during construction results in an overall **minor negative** effect. The health effect is considered the same for vulnerable populations.

Development Stage	Summary of Health Effects
Early occupation	The phasing of the proposed Development is not yet fixed, however there is a commitment to ensure that each phase is successful and sustainable in its own right. This will therefore include the provision of appropriate retail facilities within each phase. The majority of the retail provision is currently planned for Phases 1 and 2. The creation of allotments and community orchard areas will also be provided, thus providing some opportunity for local residents to grow their own fresh produce. The health effect of the proposed Development in terms of access to healthy food choices during early occupation is considered to be **minor positive** including on vulnerable populations.
Operation	Once the proposed Development is fully built out, there will be a wide range of food retail opportunities for new residents, as part of the town and local centres. This will provide a suitable range of choice of food outlets – including for example hot and cold provision, healthy food outlets, takeaways as is expected in most towns of this size. Residents will continue to have opportunities to grow / acquire fresh produce from the allotment areas and community orchards and gardens. The health effect of the proposed Development in terms of access to healthy food choices during operation is considered to be **moderate positive** including on vulnerable populations.

5.8 Access to Work and Training

5.8.1 This section considers the potential impacts on health as a result of access to work and training associated with the construction, early occupation and operation of the proposed Development.

Evidence Review

5.8.2 Employment is protective of health due to its associations with feelings of security, increased friendship networks and social status. To maximise health benefits, jobs need to be sustainable, offer a minimum level of quality, pay a decent living wage, provide opportunities for in-work development, provide flexibility to enable people to have a work and family life balance, and offer protection from adverse working conditions that can damage health. Income from employment also has an indirect financial effect on the quality of life of families, their health and the health of dependants.

5.8.3 Conversely, unemployment contributes to poor health and can lead to poverty, illness and a decrease in personal and social esteem. The long-term unemployed carry a greater burden of disease, particularly mental illness, than employed persons and those who are unemployed only for a short time. The burden of disease increases with the duration of unemployment. The vicious circle of unemployment and disease can be broken only by the combined effects of health care, special health-promoting measures and social interventions (Ref 1.61). Unemployment can have financial but also emotional and social impacts on family relationships; and on activities of other members of the family (for example education, work, leisure time, and social activities (Ref 1.62). Improving household income is therefore likely to lead to better health. However, it should be noted that income is one of many factors which contribute to health, because of this, the direct causal relationship between income and health may be limited.

5.8.4 Rates of unemployment are highest among those with no or few qualifications and skills. Training and employment positively effects health and well-being, contributing to a healthy standard of living (Ref 1.63). Inequalities in educational outcomes affect physical and mental health, as well as income, employment and quality of life. The relationship between socio-

economic position and educational outcome has significant implications for subsequent employment, income, living standards, behaviours, and mental and physical health.

5.8.5 The Economic Development Strategy prepared for Shepway (2015) has as its key priority to *'boost the local economy and increases job opportunities'* through the development of an environmentally sustainable and vibrant local economy.

Context

5.8.6 Commercial uses located and currently operational within the application Site boundary include offices, workshops, a café and recording studio. These uses currently employ in the region of 70 staff.

5.8.7 A summary of the local and regional economic profile is provided in Chapter 5, highlighting that:

- economic activity rates are slightly lower within Folkestone & Hythe District than is the case for Kent
- there is a higher proportion of residents in caring, leisure and service occupations
- there is a higher claimant count for residents in Folkestone & Hythe District when compared to Kent and the South-East, with higher youth unemployment in particular.

5.8.8 The Employment Land Review for Shepway (2017) notes that Shepway (now Folkestone and Hythe) supported around 48,200 jobs in 2016, representing an employment growth of 27% over the period from 1997 which was much higher than the growth recorded in Kent (22%), the South East (19%) and the UK (19%) over the same period. The District is over-represented in a number of employment sectors including public administration and defence, agriculture and finance and insurance, whilst under-represented in manufacturing, professional and other private services, and information / communication. Productivity (as measured by Gross Value Added) was lower in Shepway in 2016 than the average for Kent or the South East, reflecting the over-representation of lower value sectors in the district.

5.8.9 The Shepway Economic Development Strategy (2015 -2020) identifies four priorities for the area including building on economic strengths; boosting productivity and supporting business growth; promoting further investment; and improving education and skills attainment. Within these priorities there is a focus on promoting key sectors which are well represented in the district already and which have potential for future growth. These include financial services, creative industries, business and professional services, transport and logistics, energy, tourism, culture, retail and recreation, and advanced manufacturing. Key activities identified include encouraging more business start-ups, supporting businesses to grow and improving survival rates of businesses.

5.8.10 Travel to work data for the former Shepway District (now Folkestone and Hythe) identifies it to be a net exporter of labour, with key commuting destinations being Ashford, Dover, Canterbury, Maidstone and central London. The self-containment rate for Shepway was 69% in 2011 (this refers to the share of residents who also work in the district). Travel to Work Areas (TTWAs) defined in 2015 by the Office for National Statistics (ONS) identify best fit boundaries within which commuting is as self-contained as possible. The 2015 data shows Folkestone and Dover as part of a combined TTWA (in previous assessments, Folkestone and Dover formed separate TTWAs).

5.8.11 The Employment Opportunities Study prepared for Otterpool Park by Lichfields in March 2018 (Ref 1.64) suggests that the existing commercial market is relatively localised, with the District recording a relatively low share of inward investments compared to other parts of Kent over the last two decades. Whilst the Folkestone & Hythe economy has grown relatively strongly during the past two decades, there are a number of gaps and issues which

ultimately constrain the ability of the district to compete with other parts of Kent and the wider South-East. These include lower than average business start-up rates, out-commuting of more highly qualified residents, a lack of good quality and deliverable employment sites in accessible locations of greatest market demand (which in turn constrains economic performance and ability to diversify the local economy), and availability of high quality premises.

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5.8.12 The total proposed employment floorspace created by the proposed Development is 87,500 sqm, with employment spread across each of the indicative development phases to meet local needs. The proposed Development has been estimated to generate 6,860 FTE across a range of sectors which, when taking into account part-time workers, could equate to 8,605 jobs.

5.8.13 The proposed Development also has the potential to create off-site jobs in the wider area, presenting an opportunity to provide a strategic employment function within Folkestone & Hythe District and to potentially act as a key attractor for some growth sectors as detailed in the Economic Strategy (ES Appendix 14.1).

Assessment of Health Effects

5.8.14 The assessment of potential health effects for each of the three stages of development is summarised in Table 28.

Table 28 Assessment – Access to Work and Training

Development Stage	Summary of Health Effects
Construction	Construction employment has been calculated using regional data for employment and turnover within the construction sector based on Standard Industrial Classification 2007 subclasses and using data from the 2017 Annual Business Survey (Office for National Statistics). Estimates indicate that a total of 800 net FTE construction jobs could be created in the local area and 1,183 jobs created in the wider region. Construction workers tend to be relatively mobile, and therefore it is uncertain what proportion of workers may come from the immediate area, however there is no doubt that the opportunity for employment will exist both within the immediate construction industry and its wider supply chain. Due to the large scale of the development developers may be encouraged to employ local workers and therefore, local trainees. The phased approach to the proposed Development offers long-term opportunities and could facilitate career development through apprenticeships and training in construction trades. The proposed Development also presents an opportunity for growth in new and developing construction trades, such as sustainable techniques and the green construction sector. Opportunities have been identified for establishing links with local education and training providers such as the construction skills centre at the Folkestone Campus of East Kent College, which has recently expanded. Health effects arising from the construction of the proposed Development in relation to access to work and training are therefore likely to be positive overall. Although effects are likely to be generally temporary in nature (due to the finite nature of the construction programme), there may be longer-term / permanent effects resulting from training programmes and skills development. In relation to the workforce in total, these beneficial effects are likely to generate a **moderate positive** effect. Vulnerable groups that may benefit in particular include low-income populations and the unemployed (particularly young people who may benefit from access to apprenticeships and construction training programmes). The health effect is considered the same for vulnerable populations.

Development Stage	Summary of Health Effects
Early occupation	During early occupation, the health effects as described in relation to construction will continue. There will also be the added effect associated with the provision of employment created directly as part of the proposed Development. Employment will also arise from the l development of shops and services on-site. Both new and existing residents may benefit from the creation of these opportunities, with the health effects considered to be **moderate positive**. Again, vulnerable groups that may benefit in particular include low-income populations and the unemployed. The health effect is considered the same for vulnerable populations
Operation	Once the development has been fully built out, there will be a wide range of employment and training opportunities across the Site. A significant proportion of new jobs (75%) is estimated to be taken up by residents within the district, based on current commuting patterns. The employment generated within the proposed Development has the potential to create a range of jobs across different occupational groups with varying skills requirements. Given the mix of commercial floorspace proposed, a high proportion of jobs are expected to come forward in high value sectors such as professional, scientific and technical activities and manufacturing (61.8% and 3.4% respectively), with an estimated 64.6% of jobs in Otterpool Park requiring high-skilled workers. Health effects are considered to be **moderate positive** – impacting on physical and mental health and general well-being as a result of improved lifestyles, income and feelings of self-worth. Vulnerable populations include low-income groups and the unemployed. The health effect is considered the same for vulnerable populations

5.9 Air Quality, Noise and Neighbourhood Amenity

5.9.1 This section considers the potential impacts on health as a result of changes in air quality, noise and neighbourhood amenity associated with the construction, early occupation and operation of the proposed Development. This section builds on the assessments of Chapter 6: Air Quality and Chapter 13: Noise and Vibration of the Environmental Statement.

Evidence Review

5.9.2 Air pollution and noise annoyance impact on health independently, although the causes and impacts are highest for residents living close to major road networks and in urban areas. There is greater variability in physical health related quality of life measures as a result of air pollution, whereas noise pollution predicts greater variability in psychological, social and environmental domains (Ref 1.64). Vehicle traffic is one of the largest contributors to air pollution. The presence of vegetation can affect the flow dynamic and dispersion of local atmospheric pollutants, improving localised air quality.

5.9.3 Increases in outdoor air pollution can lead to increased cardiovascular and respiratory mortality and morbidity. Some effects are more or less immediate and affect vulnerable groups (e.g. children or people whose health is already impaired) in particular, whereas the effects of long-term exposure are more widespread. Particulate Matter (PM) is the constituent most closely associated with adverse health effects.

5.9.4 Age is the most consistent effect modifier of the association between short-term exposure to particulate matter and death and hospitalisation, with older persons experiencing higher risks (Ref 1.65). There is a significant association between hospital emergency visits for wheezing and gastro-enteric disorders in children 0–2 years of age and air pollution levels (Ref 1.66).

5.9.5 Noise pollution and vibration can lead to annoyance, interference with speech and sleep disturbance. It can also lead to cardiovascular and physiological effects. Stress has been suggested as a possible mechanism through which noise may affect mental and physical health. The evidence base (studies in both community and occupational settings) shows that potential of noise pollution to impact on health outcomes is strong and highlights that people's perception of noise can be as important as the actual noise levels themselves.

5.9.6 The level of effect from noise pollution can depend on the type of noise, nature of tasks being undertaken, and personal characteristics. Intermittent noise of relatively short duration has been found to be most disruptive, particularly where it interferes with cognitive tasks because there is limited capacity for the individual to compensate. In contrast, for conditions of continuous noise of longer duration, individuals can develop more effective coping strategies (Ref 1.67).

5.9.7 Vulnerable populations considered of particular sensitivity to noise related health effects include children, the elderly, the chronically ill, people with hearing conditions (impairments, those suffering from tinnitus) and people with mental illness (for example schizophrenia or autism). Evidence suggests noise pollution may limit children's learning (Ref 1.68).

5.9.8 Construction activities can have a short term negative impact on air quality – there can be dust from site works and construction vehicles carrying site materials or waste along with exhaust emissions from construction and other traffic due to road disruption and diversions. Further, construction activities can lead to an increase in localised noise and vibration. Although a significant amount of emissions can be produced from construction activities, a variety of actions can be taken to reduce the environmental impacts (Ref 1.69).

5.9.9 Indirect health effects can occur as a result of noise or perceived air pollution, including deterring walking and cycling, thereby impacting on physical activity levels.

Context

5.9.10 The Kent Environment Strategy (2016) claims that 'Kent's unique position between London and the continent brings significant challenges in relation to air pollution through cross-channel freight and traffic…and is currently facing increased congestion on both road and rail, impacting Kent's economy, health and environment'. One of the priorities of the strategy is to bridge gaps in understanding risk and to consider opportunities to identify actions. This includes developing understanding of air and noise quality impacts on health.

5.9.11 The Kent State of the Environment report (2015) sets a Vision for Kent to overcome the health and environmental effects arising from pollution. The report discusses the Kent and Medway Air Quality Partnership (KMAQP), which is a network funded by the combined local authorities to promote the improvement of air quality within the region, help local authorities meet their obligations under environmental regulations and maintain an accessible database of robust measurements for public reporting, research and development.

5.9.12 Baseline evidence from air quality monitoring sites across F&HDC in 2017 showed that NO_2 concentrations ranged from 16.2 to 30 $\mu g/m^3$, with the majority falling between 19 and 23 $\mu g/m^3$ (well below the annual mean AQS objective of 40 $\mu g/m^3$). Between 2013-2017 the monitored results showed that there was no real upward or downward trend and that concentrations have remained stable. Similar evidence from monitoring sites within ABC demonstrated that the 2017 ABC NO_2 concentrations ranged from 17.3 to 36.4 $\mu g/m^3$, again below the annual mean AQS objective of 40 $\mu g/m^3$.

5.9.13 In addition to this evidence, a six month air quality monitoring survey was undertaken by Arcadis in the vicinity of the application site in order to better inform baseline air quality. The findings from the monitoring survey demonstrated that annual mean NO_2 concentrations were well below the annual mean AQS objective of 40 $\mu g/m^3$ indicating a reasonably good

level of existing air quality in the vicinity of the application site. Defra background maps confirmed that background NO_2, PM_{10} and $PM_{2.5}$ concentrations are low across the application site when considered in the context of the respective AQS objectives. Further detailed information relating to baseline survey work can be obtained from the Environmental Statement (Chapter 6: Air Quality).

5.9.14 Existing noise sources at the Site and within the surrounding area are primarily from road traffic using the M20 motorway just to the north of the Development and trains using the high-speed electrified rail line that connects London with continental rail networks via the channel tunnel. The Lympne industrial estate located to the south of the Site dominates the baseline noise environment there. To lesser extent, parts of the Site have a noise environment that is influenced by traffic on the local road network and general human activities such as farming and residential noise sources.

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5.9.15 The proposed Development incorporates a number of measures that serve to reduce the number of vehicle trips generated or that encourage the use of low emission vehicles, including:

- minimising reliance upon motor vehicle use
- promoting alternative transport options
- inclusion of integrated cycle paths into surrounding environments
- inclusion of pedestrian walkways into surrounding environments
- inclusion of electric charging points
- implementation of a Travel Plan
- integration of public transport provisions.

5.9.16 The design of the residential area, in particular areas to the north of the site due to the proximity of the M20 and HS1 route will have appropriate mitigation measures for noise control including:

- Glazing and ventilation provision to ensure internal noise climates are suitable
- The design and layout of the development ensures that noise is controlled and that sensitive areas are not exposed to significant noise sources
- The development includes provision for acoustic screening through design and optimum placement of buildings. Specific acoustic fencing/ bunding will be used where necessary.

5.9.17 The Green Infrastructure Strategy (ES Appendix 4.11) identifies the provision of a buffer of planting and habitat creation between the M20/High Speed transport corridor and the settlements for noise and air quality mitigation purposes. The Strategy sets out the range of benefits the green infrastructure network provides the proposed Development including for visual amenity and visual integration purposes during construction, early occupation and operation.

5.9.18 Site wide planting seeks to integrate the settlement as a whole into the site's surrounding landscape character and visually integrate the proposed Development into views into, through and out of the site from publicly accessible areas within the AONB, PRoW and those in existing settlements, in addition to assisting in mitigating noise, air, visual and light pollution effects associated with the construction of the proposed Development.

5.9.19 Advance planting of native tree, shrub, hedge and scrub stock planting to form woodland or belts of vegetation in advance of the completion of the development is proposed. This would

allow the structural planting to establish and mature and perform visual integration and mitigation functions during the construction phase.

Assessment of Health Effects

5.9.20 The assessment of potential health effects for each of the three stages of development is summarised in Table 29.

Table 29 Assessment – Air Quality, Noise and Neighbourhood Amenity

Development Stage	Summary of Health Effects
Construction	Construction phase impacts, including on human health, are anticipated (if unmitigated) from dust emitted by construction activities and vehicle movements. The maximum risk of dust effects for construction of the proposed Development is considered to be high; therefore, mitigation measures detailed in the IAQM construction dust guidance commensurate with a high risk site should be adopted as part of the outline CoCP. With appropriate mitigation measures, residual construction phase dust impacts should be no worse than negligible. Impacts to specific identified receptors as a result of noise levels during the construction phase are expected to be relatively short-term in duration as a result of the changing operational areas as construction phasing progresses. The exact duration over which impacts might arise at any given receptor is not yet known and will not be concluded until detailed phasing of the construction programme is produced. Any element of the construction works that may have a significant adverse effect will be identified and considered within CoCP S61 agreement at which time appropriate mitigation measures and best practice techniques will be proposed. Demolition work in particular has the potential to create higher noise levels that may have a temporary adverse impact upon existing residents located close to these properties. Typically works during the construction phase would only be undertaken during daytime hours. To prevent any adverse effects on visual impact from the construction period a CoCP will be secured as a planning condition to safeguard the visual amenity of the area. The masterplan and phased approach to construction includes early planting during construction and would work in conjunction with appropriately designed fencing between existing communities and new development. The construction peak is in 2030. The health impacts from air quality, noise are considered to be **minor negative** during construction. The health effects on vulnerable groups from air quality, noise and neighbourhood amenity are considered the same due to the temporary nature of these effects.
Early occupation	The operation of the partially built proposed Development in 2024 is not expected to result in any significant adverse effects on local air quality. Changes in concentrations at existing receptors are negligible for all pollutants and total concentrations across the application site are well below relevant annual mean AQS objectives indicating that the occupants of the site in 2024 would be subject to an acceptable standard of air quality, the effects are therefore likely to be not significant. There is an opportunity for the use of 'meanwhile spaces' (temporary accessible green space) to provide additional green infrastructure areas during the construction phases. The detailed mitigation phasing plan will ensure that green infrastructure will be provided in a phased manner and will be available early on in the development through securement as part of the stewardship agreement. During the early occupation phase structural planting of native vegetation will commence, to allow the vegetation to mature and act as a visual mitigation method towards further construction. During early occupation the health impacts from air quality, noise and on neighbourhood amenity are considered to be **minor negative**. The health effects on vulnerable groups from air quality, noise and neighbourhood amenity are considered the same due to the temporary nature of these effects.

Development Stage	Summary of Health Effects
Operation	The operation of the fully developed proposed Development (inclusive of the 10,000 home wider application) is not expected to result in any significant residual effect on local air quality. The slight adverse impacts (associated with one receptor) are not sufficient in magnitude or quantity to suggest that the proposed Development would result in a long term significant adverse effect on local air quality. The proposed Development would generate increases in noise as a result of changes in traffic flow characteristics and composition on road links in the area; the proposed Development also results in the creation of new noise sources (for example sports pitches, commercial activities). According to ES Chapter 13: Noise and Vibration, there will be permanent adverse effects from noise created by the new proposed development, the noise is to be considered within the scope of an appropriate Acoustic Design Strategy (DS), therefore, not to have a significant residual effect. Structural planting as supported in the F&HDC-CSR policy SS7 (New Garden Settlement – Place Shaping Principles) will be used to separate neighbourhoods within the settlement itself and provide a visual and physical buffer from the M20 and railway which should help to mitigate noise and air quality impacts. The health impacts on residents from air quality, noise and neighbourhood amenity are considered to be **neutral** and due to mitigation measures resulting in less pollutants, noise and visual disturbance in the local area. The sensitivity of receptors for vulnerable groups is considered the same for vulnerable groups.

5.10 Social Cohesion and Lifetime Neighbourhoods

5.10.1 This section considers the potential effects on health as a result of impacts on social cohesion associated with the construction, early occupation and operation of the proposed Development.

Evidence Review

5.10.2 Social cohesion refers to the value derived from strong social networks within a community. Social cohesion can create an environment which is more prosperous, liveable and economically viable (Ref 1.70), supporting well-being, including personal well-being and health. Cohesive communities are characterised by a sense of belonging to an area, respect for diversity and the presence of similar and equal opportunities for all residents (Ref 1.71). Links between social capital / cohesion and health and well-being include opportunities for social participation and support (which can result in a reduced risk of cardiovascular disease, anxiety and depression). Research has shown that improved social cohesion can lead to improvements in mental well-being and health.

5.10.3 As noted in the earlier section relating to access to healthcare and social infrastructure, case study evidence has shown that social facilities and community infrastructure are key requirements as mechanisms for building social capital and community support with lack of appropriate facilities cited as important contributory factors for mental health issues (Ref 1.72).

5.10.4 New residential developments have the means to provide an environment which place a central focus around people and their collective neighbourhood (Ref 1.73). The environment should be socially diverse and inclusive of all people to encourage social cohesion in the community (Ref 1.74).

5.10.5 In areas where new settlements are created, connecting the new development with existing communities is highly important. Social interaction between people living in the existing community, developers and new residents must be carefully considered. People living in areas identified for new housing may feel concerns about new developments, for example relating to implications for the value of their home, effects on local infrastructure and increased congestion, which may cause stress and anxiety. To create cohesive communities with residents from existing and new developments it is important therefore that the two groups have opportunities to mix and interact. This approach can be taken at a street by street level for example, ensuing that a public good such as a post box is situated in a place to attract people. Another method may involve working with existing communities to develop services and facilities needed locally, for example affordable housing, housing aimed at first times buyer or assisted housing for the elderly (Ref 1.75).

5.10.6 The antithesis to social cohesion is community severance. Community severance is generally a poorly understood concept among both researchers and practitioners and as a result can be difficult to quantify and measure. Community severance can result from new roads, road improvements and changes in traffic levels. It can also be time-specific and may affect different user groups in different ways (Ref 1.76).

5.10.7 In order to achieve social cohesion and avoid community severance, the environment must focus on sustainability and being accessible for inhabitants, regardless of age, ability or disability (Ref 1.77). Community severance barriers can be grouped into three groups across the literature: physical, psychological and social, although they are not necessarily mutually exclusive. Physical barriers can be static or dynamic e.g. waterways or railway line are static barriers, whereas parked cars can be continuous lines of stationary vehicles, but the configuration is changeable. Psychological barriers are areas with perceived danger, safety or unpleasantness. Social barriers include isolation, accessibility particularly for pedestrian connectivity and public transport access.

Context

5.10.8 Existing communities within the immediate vicinity of the proposed Development are the villages of Lympne, Sellindge, Stanford, Barrow Hill and Newingreen. Both Lympne and Sellindge have populations in the region of 1,500 people (according to 2011 Census data) and are home to a small range of local services and facilities. Sellindge Village Hall and Lympne Village Hall are run by Sellindge and Lympne Parish Councils respectively and available to hire for community uses. Sellindge Sports and Social club also hosts local activities. There are also places of worship belonging to multiple congregations, including several historic parish churches. Evidence from community consultation has demonstrated that the community halls are successful and popular with local residents.

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5.10.9 The Design and Access Statement (ES Appendix 4.16) for the proposed Development states that a vibrant community is at the heart of the vision for Otterpool Park, ensuring the most valuable resource will be its people. This visionary place will encourage active involvement from every generation, developing pride in their community and sharing in its success. The community will also have strong connections with the wider area through effective partnerships, ensuring that it is seen as part of the district.

5.10.10 Otterpool Park aims to be a healthy and vibrant community that is empowered, self-resilient and which takes responsibility for its interaction with the environment and successfully integrates with neighbouring communities according to the Governance and Stewardship Strategy (ES Appendix 4.13). The lifestyle and needs of the community have been considered, with community facilities provided to benefit both the Otterpool Park residents

and existing communities. With each phase of the proposed Development, a socially mixed community will be created incrementally.

5.10.11 Otterpool Park will comprise 22% affordable housing, in line with planning policy requirements. The types of dwellings proposed support the various needs of future residents, including various affordable housing types, self and custom build provisions and housing of different tenures. Otterpool Park will positively contribute to the housing need including for various dwelling tenures and sizes to meet the need of a variety and diverse range of future residents.

5.10.12 Folkestone and Hythe district comprises a higher proportion of retired and elderly residents, in which Otterpool Park recognises and aims to provide a range of options for older people to meet their care needs, including 'down-size' dwellings, a retirement village, nursing home and extra care housing with support functions. Dwelling types aimed at older people will be integrated into neighbourhoods to support social cohesion and in geographical proximity to local town centres for maximum accessibility and community engagement opportunities.

5.10.13 The Transport Strategy (ES Appendix 16.5) includes links from the proposed Development to existing communities via active travel modes to ensure a high level of connectivity from Otterpool Park, in addition to the sub-region by frequent public transport.

5.10.14 The Green Infrastructure Strategy (ES Appendix 4.11) and DAS outline how providing services and amenities including shops, schools and places of work within walking distance, the proposed Development aims to bring people together and supplement neighbouring villages. Existing communities would be integrated with Otterpool Park whilst minimising the visual and other impacts.

5.10.15 The long term management of green infrastructure are set out in the Governance and Stewardship Strategy (ES Appendix 4.13). The key principles for governance and stewardship with the proposed Development are to be community led, creating a sense of ownership and opportunities for local people.

Assessment of Health Effects

5.10.16 The assessment of potential health effects for each of the three stages of development is summarised in Table 30.

Table 30 Assessment – Social Cohesion and Lifetime Neighbourhoods

Development Stage	Summary of Health Effects
Construction	There is potential for adverse effects during construction as a result of reduced community interaction due to real or perceived construction activities; however, there are not proposed to be any changes in access to existing community centres or facilities and mitigation measures proposed in the CoCP should ensure that environmental effects as a result of construction activities are minimised. As such, the health effects are considered to be **minor negative,** due to the temporary nature of these effects. Vulnerable populations may include groups such as the elderly, for whom there may be a perception of reduced community interaction, or a perception of changes to mobility, as a result of the presence of construction activities in the area. The health effects on vulnerable groups are considered the same i.e. **minor negative**.
Early occupation	The potential health implications of early occupation are primarily related to mental health issues; these can be associated with a lack of a sense of belonging, lack of opportunities for community interaction and stresses created by ongoing construction activity (for example noise or amenity issues). All age groups and backgrounds are potentially vulnerable to these issues. Phasing of the proposed Development importantly incorporates opportunities for community interaction at the earliest stage – Phase 1 includes provision of education and community centre space. It will also be important that measures are put in place to develop the community interaction as part of the stewardship of the Development. With such measures provided, the effect on health from early occupation is considered to be **minor negative**. The health effect is considered the same for vulnerable populations.
Operation	The proposed development includes for the creation of new neighbourhoods, linked together through new accesses and infrastructure, and including the creation of community facilities. Health effects are considered to be beneficial and long-term, providing new opportunities for social interaction. However, for some existing nearby communities there could be a perception of threat from the large new population arising from the proposed Development. As this impact is likely to affect a relatively small number of existing residents and because the construction period is expected to last 19 years thus providing significant time for residents to adapt to the change, it is not expected to constitute a significant adverse effect. On balance, therefore it is considered that the proposed Development will have a **moderate positive** impact on the health and well-being of existing and future residents. Vulnerable populations include those for whom mobility may be impaired, such as people with disabilities and the elderly, who may find it difficult to undertake social interactions. The health effect is considered the same for vulnerable populations.

5.11 Minimising the Use of Resources

5.11.1 This section considers the potential effects on health as a result of the use of resources associated with the construction, early occupation and operation of the proposed Development.

Evidence Review

5.11.2 The construction industry is a vital element of the economy but has a significant impact on the environment. Construction requires large quantities of energy, water and material resources. With such significant impacts, taking a sustainable building approach is an increasingly important action (Ref 1.78). In order to extend the life span of the dwellings, reduce the use of further resources to fix operational mistakes and reduce the ongoing environmental damage, construction practitioners must make sustainability a central focus.

5.11.3 The operational phase of the development should ensure the use of materials that are ethically sourced, efficiently reuse and recycle materials and ensure sustainable travel journeys. To maintain sustainable operations homeowners must be provided with environmental knowledge (for example with regard to waste management and recycling) to affect their attitudes and behaviours in making environmentally friendly decisions, as results show that they often do not come equipped with such knowledge (Ref 1.79). To further maintain resident's engagement, educational programmes and well-designed management plans should be considered.

Context

5.11.4 The majority of the Site is currently undeveloped and is primarily agricultural land. Waste arisings are currently only generated from agricultural activities and the small number of existing residential and business operations within the Site. Currently an alternating weekly collection system for the properties in F&HDC is provided. In 2016, this represented 49,660 households. For households, residual waste and recycling is collected on alternate weeks, with food waste collected weekly. Garden waste is collected on alternate weeks for garden waste subscribers.

5.11.5 KCC operates 21 'bring' sites, of which two (Folkestone and New Romney) are located within F&HDC. KCC achieved a recycling rate of 46% in 2014, 44.3% in 2015 and 43.7% in 2016. Comparing these rates against regional and national performance shows that they are comparable to the average for England.

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5.11.6 A Sustainability Statement (Ref 1.94) has been prepared to accompany the OPA, which sets out how the proposed Development complies with local and national sustainability requirements. The Statement notes that, in relation to materials and waste, early commitment to reducing the embodied carbon and environmental impact of materials and resources and considering sourcing, conservation and re-use can help deliver a more sustainable outcome. Utilising materials that are also local and resilient can reduce longer term negative environmental impacts. Moving towards a more sustainable model of resource use and waste management is fundamental to achieving sustainable development. The management of waste can deliver positive environmental and economic outcomes during both the construction and operation of a development.

5.11.7 The proposed Development has been designed with sustainable development at its core. It has been designed to reduce carbon dioxide (CO_2) emissions, be resource efficient, adapt to climate change, manage pollution, protect heritage, enhance biodiversity, boost the local economy and increase health and wellbeing. Relevant measures include that the proposed Development:

- is designed with a low carbon future in mind with the consideration for Electric Vehicle (EV) infrastructure and electrical heating via Air Source Heat Pumps (ASHP);
- utilisation of low environmental impact materials and modern methods of construction;
- reuse of demolition and excavation waste to reduce the impact on existing waste facilities.

Assessment of Health Effects

5.11.8 The assessment of potential health effects for each of the three stages of development is summarised in Table 31.

Table 31 Assessment – Minimising the Use of Resources

Development Stage	Summary of Health Effects
Construction	It is anticipated that construction materials would be managed efficiently, minimising waste. The Applicant's commitment to the implementation of a SWMP and other measures as outlined in ES Chapter 17: Waste and Material Resources, would facilitate the reuse and recycling of waste and reduce the unnecessary landfilling of waste. Recycling all inert and non-hazardous waste onsite, adhering to the requirements of the Waste Strategy (ES Appendix 17.1) submitted with the OPA would ensure that impacts of construction waste are minimised. Therefore, despite the high volumes of construction waste likely to arise from the construction of the proposed Development, the significance of effect on the F&HDC and KCC waste management infrastructure has been assessed in ES Chapter 17: Waste and Material Resources as neutral. The proposed Development is considered to have a **minor negative** effect on health as a result of measures to minimise use of resources and appropriate waste management. The health effect is considered the same for vulnerable populations.
Early occupation	Construction effects as described above would continue during the early occupation period. An Energy Strategy (ES Appendix 4.9) has also been developed for the proposed Development which sets out how energy efficiency of homes and wider development can be achieved. During the construction, the proposed Development is considered to have a **minor negative** effect on health as a result of measures to minimise use of resources and appropriate waste management. The health effect is considered the same for vulnerable populations.
Operation	During the lifetime of the proposed Development, large quantities of operational waste are likely to be produced on the Site (which currently generates minimal volumes of waste from a small number of existing homes and businesses). This could have a potentially significant effect on local waste management infrastructure and the ability of F&HDC and the wider KCC to meet waste management targets. According to ES Chapter 17: Waste and Material Resources, it is anticipated that operational waste would be managed efficiently, minimising waste arisings and diverting waste from landfill. A Site Waste Management Plan has been developed as an embedded mitigation measure to provide a planned approach to resource as well as waste management. The Site Waste Management Plan has identified the likely quantities and composition of waste that would be generated and proposes appropriate waste management options that would optimise the management of waste generated during both construction and operation phases. An Energy Strategy (ES Appendix 4.9) has been developed for the proposed Development and sets out targets for the initial phases of the development, based on policy and Building regulations. The key commitments of the strategy include a Fabric First approach, electrically powered using low carbon heat sources. Also, The Energy Strategy (ES Appendix 4.9) states that the proposed Development will exceed Policy CC1 of the Folkestone and Hythe Adopted Places and Policies Local Plan (F&HDC, 2020) which requires new build housing developments and non-residential buildings over 1,000m2 to reduce carbon emissions by a minimum of 10% above the Building Regulations (2013). The proposed Development is considered to have a **minor negative** impact on health as a result of the minimisation of resources used during the operational phase. The health effect is considered the same for vulnerable populations.

5.12 Climate Change

5.12.1 This section considers the potential effects on health as a result of impacts related to climate change associated with the construction, early occupation and operation of the proposed Development. Although the effects of proposed Development on climate change are assessed in other studies such as the ES Chapter 8: Climate Change and Otterpool Park Energy Strategy (ES Appendix 4.9), this section relates to the effects of climate change on the health of existing and future residents. Given the relatively long-term time frame between construction and operation of the proposed Development i.e. 19 years estimated construction period, existing and future residents have the potential to be directly affected by the effects of climate change in the future. For example, flooding events, unusually hot weather etc. It should be noted that the climate change affects directly attributable to the proposed Development are likely to be challenging to quantify and this is taken into account in the assessment.

Evidence Review

5.12.2 Climate change is one of the biggest challenges facing the UK and world today. Buildings including residential dwellings are a significant emitter of CO_2 in the UK (Ref 1.80).

5.12.3 The Marmot Review (2010) made clear that local areas should prioritise policies and interventions that 'reduce both health inequalities and mitigate climate change' because of the likelihood that people with the poorest health would be hit hardest by the impacts of climate change (Ref 1.81).

5.12.4 Climate change consequences, at local level, could affect the health of the population, particularly with an increase in flooding, summer temperatures, levels of solar radiation and frequency of extreme weather events. These could, for example, increase the numbers of fatalities, injuries, infectious diseases, heat related deaths, skin cancer cases and cataracts. People from deprived communities (for example low-income households) as well as people with disabilities and older people, may be most vulnerable to the consequences of climate change, potentially lacking the resources or ability to be able to respond.

5.12.5 The creation of a new urban environment within a distinctive rural area can alter the local microclimate. Urban areas change the energy exchange taking place which has the potential to create an urban heat island (Ref 1.82). The hydrology of the area can be greatly affected, with increased surface runoff of rainwater due to impermeable surface cover, e.g. concrete paving. Urban areas typically have less vegetative cover, which could affect the evaporative cooling process, leading to hotter summers and colder winters. Climate change has the potential to negatively amplify these features (Ref 1.83). South East England is an area which experiences the greatest quantity of water shortages across the UK. Urban vegetation is often a first indicator of future drought and its negative implications.

5.12.6 Landscapes play a positive role in biodiversity protection, reducing flood risk and controlling air quality pollutants. Mitigating changes to the environment include the incorporation of areas of green space, private gardens and parks (Ref 1.84). Urban green space can provide a vital ecosystem for flora and fauna in terms of protection, conservation and in supporting new species. Mature trees play a vital role in providing shade, interception of rainfall, cooling function (Ref 1.85). Green space has the potential to exceed just the amenity value and directly provide physical, mental, social, environmental and economic benefits to residents (Ref 1.86).

5.12.7 All construction projects have the potential to damage natural habitats, threaten wildlife and plant species, although steps can be undertaken to reduce the negative impacts. The Government's sustainable communities programme highlights the scope to 'climate proof' new developments.

5.12.8 One of the largest emitters of greenhouse gas (GHG) emissions from new developments is transportation emissions. Low density residential developments are more GHG intensive over higher density units (Ref 1.87), due to increased car ownership and reliance on the private car for more journeys. Studies also show that higher density residential dwellings are associated with increased efficiencies in infrastructure and energy (Ref 1.88).

Context

5.12.9 At a county level, in 2019 Kent County Council published their Climate emergency statement, recognising the UK climate emergency. Their statement sets out commitments to reducing greenhouse gas emissions from the whole county to net zero by 2050.

5.12.10 The Climate Change Act outlines the framework for the UK to achieve its long-term goals of reducing GHG by 34% (from the 1990 baseline) by 2020 and by 80% by 2050, whilst also ensuring that steps are taken towards adapting to the impact of climate change.

5.12.11 The UK Government is required, under the 2008 Climate Change Act, to publish a Climate Change Risk Assessment (CCRA) every five years. The assessment sets out the risks and opportunities facing the UK from climate change. The Climate Change Committee's independent advice report informs the UK Government's third CCRA (known as CCRA3). The report states that climate change affects all parts of society and economy, including risks to health and wellbeing from high temperatures, health and social care delivery, education, food availability which have all been classified as 'more action needed'.

5.12.12 The Carbon Plan: Delivering our Low Carbon Future (2011) sets out how the UK will achieve decarbonisation and work towards a low carbon economy. The Plan promotes the use of low carbon and adaptive buildings to contribute to national carbon reduction targets.

5.12.13 The Kent Environment Strategy (2016) identifies climate change and energy consumption and generation as key challenges for the future. GHG emissions from buildings accounted for 34% of total UK emissions in 2014, within buildings emissions. Residential GHG emissions account for 64% of buildings emissions and approximately 50% of all building's emission are made from fossil fuels (primarily gas) for heating.

5.12.14 The UK emissions from buildings accounted for 34% of total UK emissions in 2014, within buildings emissions. Residential GHG emissions account for 64% of buildings emissions and approximately 50% of all building's emission are made from fossil fuels (primarily gas) for heating.

5.12.15 The UK construction industry is the largest consumer of natural resources with an average of over 400 million tonnes of raw materials consumed every year. This accounts for approximately 10% of the total UK carbon emissions.

5.12.16 The Local Climate Impact Profile (LCIP) reported that Kent is experiencing major weather events and that 52 highly significant events between the period 1996 - 2010, including heavy rain, flooding, heatwaves, droughts, freezing temperatures, snow and multiple storms. Impacts in Kent from these weather events resulted in loss of power to homes and businesses, closure of roads and disruption to rail services.

5.12.17 Climate change is predicted to increase the frequency and severity of several extreme weather events in England and the South East, in particular for warmer, drier summers and warmer wetter winters.

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5.12.18 The proposed Development has been designed to incorporate features which reduce carbon dioxide (CO_2) emissions, are resource efficient, adapt to climate change, manage pollution, and increase health and wellbeing. Relevant measures to climate change include that the proposed Development:

- Is designed with a low carbon future in mind with the consideration for Electric Vehicle (EV) infrastructure and all buildings will have low carbon electric heating in the form of Air Source Heat Pumps (ASHP) in the initial phases whilst ensuring flexibility for other low carbon heating technologies and fuels such as hydrogen in the future
- The flood risk from all sources has been assessed and concludes that the proposed development is at low risk of flooding including a consideration for climate change
- The specification of water efficient fittings and rainwater harvesting to reduce water consumption in area of water stress.
- Utilisation of low environmental impact materials and modern methods of construction
- Reuse of demolition and excavation waste to reduce the impact on existing waste facilities
- Designed with sustainable travel in mind. Public transport, cycling and walking is to be favoured of private car use by ensuring safe walking and cycling routes and transport hubs and stops within a safe walking distance. Facilities for electric vehicle charging to be provided.

5.12.19 An Energy Strategy (ES Appendix 4.9) has been developed to demonstrate how Otterpool Park will meet national and local planning requirements. The Energy Strategy (ES Appendix 4.9) (which accompanies the OPA) ensures that all sources and forms of energy consumption, generation, distribution and ownership are reviewed as part of the proposed Development. It provides an evidence base for decisions and ensure that the proposed Development incorporates futureproofing, as the proposed Development will be delivered within an evolving regulatory and technical energy market.

5.12.20 ES Chapter 8: Climate Change concludes that the construction and operational phases of the proposed Development would not have a significant adverse effect on the government's ability in achieving the carbon budgets and includes a range of mitigation measures to reduce the vulnerability of the proposed Development to climate change.

5.12.21 Climate change is likely to impact on water supply and management due to increasing irregularity in precipitation patterns and a higher likelihood of droughts. Protecting and conserving water supplies and resources in order to secure the needs of the population of Otterpool Park in a sustainable manner is seen as an urgent priority.

5.12.22 The proposed Development would utilise Sustainable Drainage Systems (SuDS) to manage surface water across the proposed Development, in terms of both water quality and quantity. The Site would aim to be an exemplar regarding the provision of SuDS and multi-functional green space, promoting Water Sensitive Urban Development (WSUD) principles. This would ensure that flood risk is mitigated during each development phase and cumulatively as the phases progress, whilst also reduce water demand and maximise overall environmental benefits. The use of SuDS would promote good water quality standards and would also allow for the creation of new wildlife spaces and valuable open amenity areas. Further information is provided in ES Chapter 15: Surface Water Resources and Flood Risk.

5.12.23 An outline Water Cycle Study (WCS) has been prepared and describes proposals for the sustainable planning of water use and wastewater treatment.

5.12.24 The vision for Otterpool Park is to emphasise local distinctiveness, celebrate biodiversity, facilitate healthy lifestyles and create enjoyable living environments for existing and future residents. The proposed Development aims to conserve and enhance habitats.

Assessment of Health Effects

5.12.25 The assessment of potential health effects for each of the three stages of development is summarised in Table 32.

Table 32 Assessment – Climate Change

Development Stage	Summary of Health Effects
Construction	The design of the proposed Development aims to reduce GHG emissions by avoiding, preventing and exploring alternative lower carbon options and using materials and techniques efficiently to minimise carbon output. Materials for the construction process where practical will be sourced locally to minimise further travel emissions. The construction process will further mitigate measures as detailed in the CoCP which will serve as a live document for the contractor. There are not considered to be any health effects arising from issues associated with climate change as a result of the construction of the proposed Development, provided that mitigation measures set out in the CoCP are incorporated into construction practices and that measures identified in the Sustainability Statement are followed. Therefore, the health effects from the construction phase from the proposed Development will be **Negligible**. The health effect is considered the same for vulnerable populations.
Early occupation	As with the construction phase, there are not considered to be any health effects associated with climate change as a result of the construction of the proposed Development. There may be long-term beneficial effects on health and well-being for new occupants of Otterpool Park arising from the incorporation of measures to create a sustainable development (and thereby reduce localised effects of climate change). Accordingly, it is considered that there would have a **Negligible** effect on health during this stage. The health effect is considered the same for vulnerable populations.
Operation	A wide range of measures have been put in place to reduce CO_2 emissions and save energy as well as the incorporation of strategies to respond to environmental events such as flooding. The overall effects on health and well-being are considered to have a **minor positive** effect**.** The health effect is considered the same for vulnerable populations.

6 Cumulative Effects

6.1.1 This section considers the cumulative effects of the proposed Development with other schemes with regard to health. For the purposes of the assessment the proposed Development will be fully built out over a period of approximately 19 years. Over the duration of the build-out period there is likely to be a cumulative effect on the health of local communities as a result of the various impacts of the proposed Development on identified health determinants. The main health impact from the proposed Development on the existing and future communities would be the additional demand for local infrastructure and services, including schools and healthcare facilities.

6.1.2 Several applications are for significant levels of new residential development and associated infrastructure. The full list of cumulative developments, alongside a map, are provided in ES Appendix 2.5. Within F&HDC, these include Shorncliffe Garrison and the Folkestone Seafront proposals at Folkestone (1,200 unit (Map ID C) and 1,000 units (Map ID F) respectively), the Nickolls Quarry proposal at Hythe (1,050 units) (Map ID G), the expansion at Sellindge (250 units) (Map ID NH), Land Rear Rhodes House Main Road Sellindge (162 units) (Map ID AM) and Land at Grove House (188 units) (Map ID AQ). Within ABC, these include Chilmington Green (5,750 units) (Map ID CG), Land north east of Willesborough Road (700 units) (Map ID S2), Court Lodge Farm (950 units) (Map ID S3), Former Powergen Site (674 units) (Map ID TC12/PP28), Land at Cheesemans Green (1,100 units) (Map ID PP24), and the former Rowcroft and Templer Barracks in Ashford (1,250 units) (Map ID PP7). Any developments within the cumulative search area of the proposed Development and over a threshold of 500 units have been considered in this cumulative assessment or are located within 1km of the proposed development.

6.1.3 These applications are generally supported with various social and community infrastructure. The Community Development and Facilities Strategy (ES Appendix 4.10) for Otterpool Park states that expanding schools as demand arises helps to ensure school places meet the needs of children living within Otterpool Park, rather than attracting children in from elsewhere. Taking into account also the intention to deliver 10,000 homes over the period of 21 years (2023-2044) at Otterpool Park, the cumulative effect on community infrastructure has been considered and additional provision made for a 2FE primary school and a reserve secondary school site if required. With this embedded mitigation, the cumulative effect on all aspects of health assessed are considered to be neutral.

6.1.4 There is potential for a Permitted Waste Facility with an extant permission, to be delivered within the application Site boundary. Although it is currently considered unlikely that the waste facility will be delivered, if it was, then there could be a reduction of approximately 800 residential units and a primary school at the proposed Development. This would not have any additional cumulative impacts on community facilities or services because it would lead to reduced need for these services. The main health effect for the Permitted Waste Facility would be from the potential odour and dust emissions. The ES Chapter 6: Air Quality concludes that the residual risk of potential odour and dust emissions, is negligible at all receptors assessed. The proposed Development would seek to adopt a buffer zone should the Permitted Waste Facility site be realised.

7 References

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Ref 1.4	National Planning Policy Framework (2021)
Ref 1.5	A Green Future: Our 25 Year Plan to Improve the Environment (2018)
Ref 1.6	Planning Practice Guidance (PPG) –Healthy and safe communities (2019)
Ref 1.7	South Kent Health and Wellbeing Strategy 2014
Ref 1.8	Increasing Opportunities, Improving Outcomes: Kent County Council's Strategic Statement 2015-2020
Ref 1.9	Folkestone and Hythe Council Places and Policies Local Plan (2020)
Ref 1.10	Reference not used
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Ref 1.12	Folkestone & Hythe District Council Core Strategy Review Submission (2022)
Ref 1.13	Folkestone and Hythe Healthier Housing Strategy 2018-2023
Ref 1.14	Creating Tomorrow Together: Folkestone & Hythe District Council draft Corporate Plan for 2021-30
Ref 1.15	Healthy Urban Development Unit (HUDU), Planning for Health: Rapid Health Impact Assessment Tool (fourth edition October 2019)
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Ref 1.31	https://www.tcpa.org.uk/green-infrastructure-definition
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Ref 1.34	Houlden, V., Albuquerque, J., Weich, S., Jarvis, S., 2019. A spatial analysis of proximate greenspace and mental wellbeing in London
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Ref 1.36	http://www.bccdc.ca/pop-public-health/Documents/HBE_linkages_toolkit_2018.pdf
Ref 1.37	https://www.nhs.uk/live-well/exercise/
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APPENDIX A

Results of Scoping Exercise

Table A.1 sets out the findings of the scoping exercise to identify health determinants that may be affected by the proposed Development. The table follows HUDU guidance, using a source-pathway-receptor model to identify potential impacts. Commentary has been included to identify what potential impacts might be and sources of the evidence base that would be used to undertake the HIA.

Table A.1 Scoping of Health Determinants

Assessment Criteria	Stage at which Relevant (Construction / Early Occupation / Full Build Out)	Details / evidence	Potential Health Impact
Housing Quality and Design			
• Does the proposal seek to meet all 16 design criteria of the Lifetime Homes Standard or meet Building Regulation requirement M4 (2)?	Early occupation Full build-out	Design standards as set out in the Strategic Design Principles (ES Appendix 4.3) document and Design and Access Statement (ES Appendix 4.16).	Positive
• Does the proposal address the housing needs of older people, i.e. extra care housing, sheltered housing, lifetime homes and wheelchair accessible homes?	Early occupation Full build-out	The Housing Strategy (ES Appendix 4.14) expresses a strong commitment to providing a range of tenures, including affordable housing. Tenures include extra-care housing, shared ownership, social rent, starter homes and private rental.	Positive
• Does the proposal include homes that can be adapted to support independent living for older and disabled people?	Early occupation Full build-out	As set out in the Housing Strategy (ES Appendix 4.14)	Positive
• Does the proposal promote good design through layout and orientation, meeting internal space standards?	Early occupation Full build-out	'Healthy Homes' design features.	Positive
• Does the proposal include a range of housing types and sizes, including affordable housing responding to local housing needs?	Early occupation Full build-out	As set out in the Housing Strategy (ES Appendix 4.14)	Positive

Assessment Criteria	Stage at which Relevant (Construction / Early Occupation / Full Build Out)	Details / evidence	Potential Health Impact
• Does the proposal contain homes that are highly energy efficient (e.g. a high SAP rating)?	Early occupation Full build-out	Energy Statement to accompany outline planning submission.	Positive
Access to Healthcare Services and other Social Infrastructure			
• Does the proposal retain or re-provide existing social infrastructure?	N/A	No social infrastructure being lost during project construction or build out phases.	N/A
• Does the proposal assess the impact on healthcare services?	Early occupation Full build-out	Population projections for the new community will be developed which will influence the requirements for healthcare and other social infrastructure.	Positive
• Does the proposal include the provision, or replacement of a healthcare facility and does the facility meet NHS requirements?	Early occupation Full build-out	As above	Positive
• Does the proposal assess the capacity, location and accessibility of other social infrastructure, e.g. schools, social care and community facilities?	Early occupation Full build-out	In addition to population projections, a review has been undertaken of the capacity of existing social infrastructure (for example schools and community facilities).	Positive
• Does the proposal explore opportunities for shared community use and co-location of services?	Early occupation Full build-out	As part of the Housing Strategy (ES Appendix 4.14)	Positive
• Does the proposal contribute to meeting primary, secondary and post 19 education needs?	Early occupation Full build-out	As above, combination of population projections and identification of existing facilities and services.	Positive
Access to Open Space and Nature			
• Does the proposal retain and enhance existing open and natural spaces?	Construction	Studies have shown that exposure to the natural environment, or green space, has an independent	Unknown

Assessment Criteria	Stage at which Relevant (Construction / Early Occupation / Full Build Out)	Details / evidence	Potential Health Impact
	Early occupation Full build-out	effect on health and health-related behaviours. Access to green space can affect health by inducing beneficial physical activity and by ameliorating stress levels. Reducing or disrupting access to green space may therefore have negative health consequences. Public footpaths within the application boundary are planned to remain operational during the construction of the proposed development. Any loss of open space during construction would be minimised and reinstated following construction activities.	
• In areas of deficiency, does the proposal provide new open or natural space, or improve access to existing spaces?	N/A	Scoped out of assessment – no areas of deficiency identified	N/A
• Does the proposal provide a range of play spaces for children and young people?	Early occupation Full build-out	Inclusion of a range of new play spaces across the proposed Development.	Positive
• Does the proposal provide links between open and natural spaces and the public realm?	Early occupation Full build-out	Linkages provided between open and natural spaces and the public realm as part of design principles. Spaces for sports, education and play will be focussed in central areas, to encourage community use, with facilities also distributed throughout the proposed Development within appropriate walking distances.	Positive
• Are the open and natural spaces welcoming and safe and accessible for all?	Early occupation Full build-out	Sustainable Travel Strategy to provide accessible neighbourhoods. The Housing Strategy (ES Appendix 4.14) identifies pleasant walking and cycling routes via green corridors that link together the various assets (parks, play areas, allotments, sports) with communities and local centres.	Positive

Assessment Criteria	Stage at which Relevant (Construction / Early Occupation / Full Build Out)	Details / evidence	Potential Health Impact
• Does the proposal set out how new open space will be managed and maintained?	Early occupation Full build-out	Maintenance of areas of new open space will be confirmed in supporting documents.	Positive
Air Quality, Noise, Neighbourhood Amenity			
• Does the proposal minimise construction impacts such as dust, noise, vibration and odours?	Construction Early occupation	The Environmental Statement will identify specific construction mitigation required as part of individual topics (e.g. air quality, noise). A Construction Environment Masterplan (CEMP) will be implemented to minimise construction impacts.	Negative
• Does the proposal minimise air pollution caused by traffic and energy facilities?	Construction Early occupation Full build-out	As above Factors relating to masterplan design and layout – the siting of sensitive receptors in relation to, for example main traffic routes.	Negative
• Does the proposal minimise noise pollution caused by traffic and commercial uses?	Construction Early occupation Full build-out	As above	Negative
Accessibility and Active Travel			
• Does the proposal prioritise and encourage walking (such as through shared spaces?)	Early occupation Full build-out	The proposed development incorporates new footpaths, including links with the existing network of Public Rights of Way. To ensure cycling and walking routes are well used and fit for purpose they will be split into two categories: Direct routes and Leisure routes. A series of walking and cycling routes away from vehicular traffic	Positive
• Does the proposal prioritise and encourage cycling (for example by providing secure cycle parking, showers and cycle lanes)?	Early occupation Full build-out		

Assessment Criteria	Stage at which Relevant (Construction / Early Occupation / Full Build Out)	Details / evidence	Potential Health Impact
• Does the proposal connect public realm and internal routes to local and strategic cycle and walking networks?	Early occupation Full build-out	will also be created, establishing a safe network linking the central areas on the east sides of the development into and through the residential areas. These routes will link into the existing footpaths and pavements within the site.	
• Does the proposal include traffic management and calming measures to help reduce and minimise road injuries?	Early occupation Full build-out	Capacity enhancements will be proposed to alleviate existing problems of traffic management and mitigate the possibility of further congestion where necessary.	Positive
• Is the proposal well connected to public transport, local services and facilities?	Early occupation Full build-out	Transport Strategy (ES Appendix 16.5), including bus network links, parking at Westenhanger Station. Bus routes being developed in conjunction with local stakeholders.	Positive
• Does the proposal seek to reduce car use by reducing car parking provision, supported by the controlled parking zones, car clubs and travel plans measures?	Early occupation Full build-out	Sustainable Travel Strategy setting out proposals to reduce car use.	Positive
• Does the proposal allow people with mobility problems or a disability to access buildings and places?	Early occupation Full build-out	Healthy homes include age friendly design. Infrastructure design to take account of the accessibility needs of the mobility impaired.	Positive
Crime Reduction and Community Safety			
• Does the proposal incorporate elements to help design out crime?	Construction Early occupation Full build-out	During construction, security measures will be identified in the CEMP. Fear of crime and perception of safety can be an important factor influencing people's daily lives – for example their travel choices. Women typically experience greater levels of concern over personal safety than do men and are more likely to avoid segregated spaces for example. Personal safety may	Positive
• Does the proposal incorporate design techniques to help people feel secure and avoid creating 'gated communities'?			
• Does the proposal include attractive, multi-use public spaces and buildings?			

Assessment Criteria	Stage at which Relevant (Construction / Early Occupation / Full Build Out)	Details / evidence	Potential Health Impact
• Has engagement and consultation been carried out with the local community?		also affect decisions to walk or cycle. This has implications for public health directly (fear of crime) and indirectly (decrease in active lifestyle). Security is built into the healthy homes design principles. Engagement and consultation has been undertaken with the local community.	
Access to Healthy Food			
• Does the proposal facilitate the supply of local food, i.e. allotments, community farms and farmers' markets?	Early occupation Full build-out	To encourage healthy eating, edible landscapes and community allotments and orchards are included for growing local food. Approximately 4-6 ha of allotments and community orchards to be provided.	Positive
• Is there a range of retail uses, including food stores and smaller affordable shops for social enterprises?	Early occupation Full build-out	Retail Strategy to provide guiding principles to support a range of retail uses.	Positive
• Does the proposal avoid contributing towards an over-concentration of hot food takeaways in the local area?	Early occupation Full build-out	Retail Strategy to provide guiding principles that avoid over-concentration of inappropriate activities.	Unknown
Access to Work and Training			
• Does the proposal provide access to local employment and training opportunities, including temporary construction and permanent 'end-use' jobs?	Construction Early occupation Full build-out	People in employment are generally healthier than those who are unemployed. Employment is associated with feelings of security, increased friendship networks and social status, each of which can be linked to better health. Income from employment also has an indirect financial effect on the quality of life of families; and therefore their health and the health of their dependants Employment uses comprising circa 15 hectares of (Class E(g) and B2 uses in a commercial/light industrial	Positive

Assessment Criteria	Stage at which Relevant (Construction / Early Occupation / Full Build Out)	Details / evidence	Potential Health Impact
		business park with circa 10 hectares of new business park and up to 5 hectares light industrial park together with a hotel. Together with local centres and home working this could create approximately 9,000 new jobs.	
• Does the proposal provide childcare facilities? • Does the proposal include managed and affordable workspace for local businesses? • Does the proposal include opportunities for work for local people via local procurement arrangements?	Early occupation Full build-out	Employment uses comprising circa 15 hectares of (Class E(g) and B2 uses in a commercial/light industrial business park with circa 10 hectares of new business park and up to 5 hectares light industrial park together with a hotel. Together with local centres and home working this could create approximately 9,000 new jobs. Potential for e.g. childcare facilities would be determined during detailed design stage. Provision within primary schools.	Positive
Social Cohesion and Lifetime Neighbourhoods			
• Does the proposal connect with existing communities, i.e. layout and movement which avoids physical barriers and severance and land uses and spaces which encourage social interaction?	Early occupation Full build-out	Communities and their networks can create strong social capital, which can have a positive contribution to a range of factors that support well-being, including personal well-being and health. Links between social capital / cohesion and health and well-being include opportunities for social participation and support (which can result in a reduced risk of cardiovascular disease, anxiety and depression). Research has shown that improved social cohesion can lead to improvements in mental well-being and health. The proposed development includes for the creation of new neighbourhoods, linked together through new	

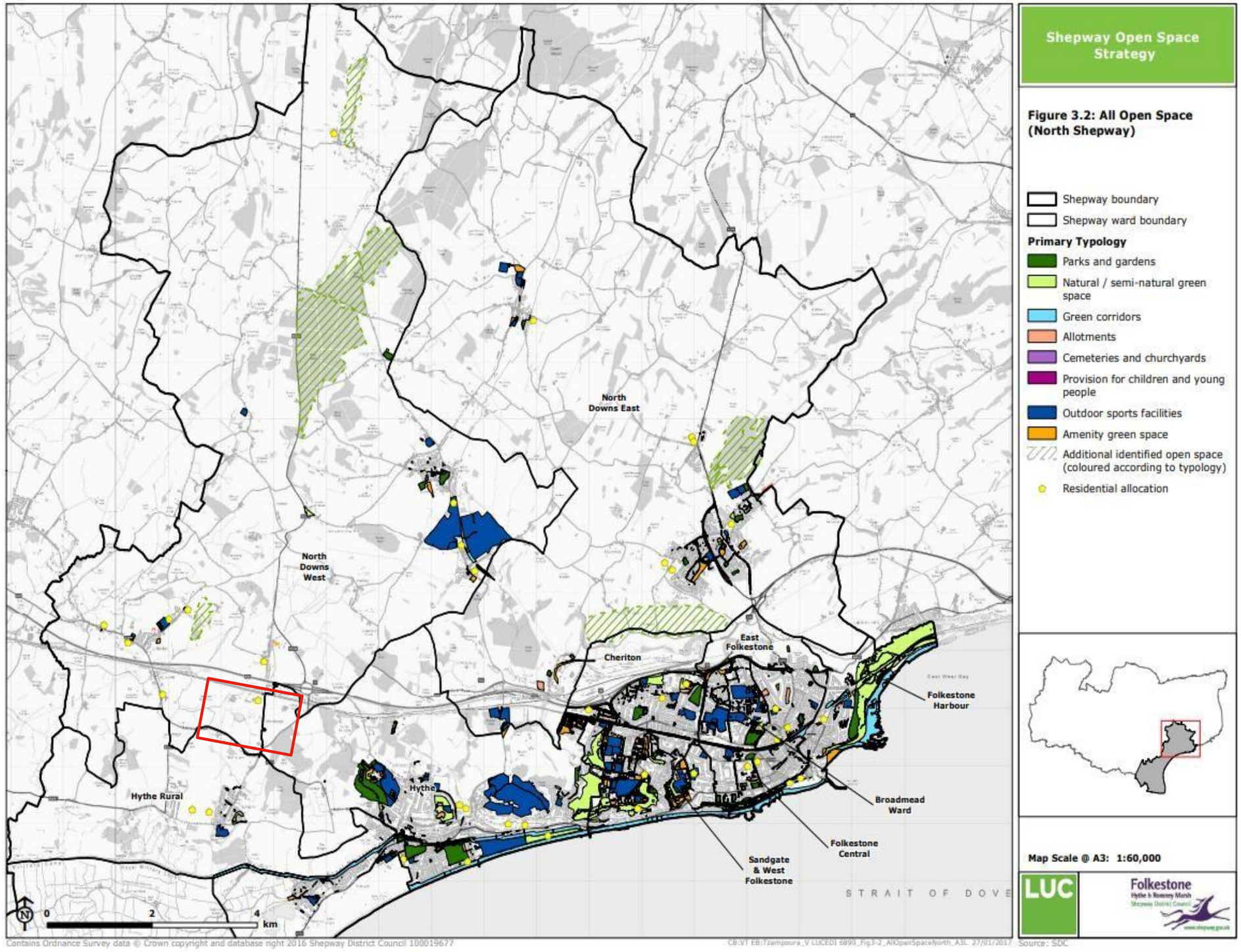
Assessment Criteria	Stage at which Relevant (Construction / Early Occupation / Full Build Out)	Details / evidence	Potential Health Impact
		accesses and infrastructure, and including the creation of community facilities.	
• Does the proposal include a mix of uses and a range of community facilities?	Early occupation Full build-out	A mix of uses and a range of community facilities are incorporated into the proposed Development.	Positive
• Does the proposal provide opportunities for the voluntary and community sectors?	Early occupation Full build-out	Opportunities are likely to come forward as build-out progresses.	Positive
• Does the proposal address the six key components of Lifetime Neighbourhoods?	Early occupation Full build-out	Design standards as set out in the Planning Statement / Design and Access Statement (ES Appendix 4.16)	Positive
Minimising the Use of Resources			
• Does the proposal make best use of existing land?	Construction Early occupation Full build-out	The existing rural farmland within the Otterpool Park masterplan is private and not widely accessible to the general public. The proposed Development provides an opportunity to showcase sustainable development.	Positive
• Does the proposal encourage recycling (including building materials)?	Construction Early occupation Full build-out	Sustainability is a guiding principle of the proposed Development. The Sustainability Statement sets out how sustainable design will be incorporated into the project, for example through renewable energy being integrated into people's homes and businesses.	Positive
• Does the proposal incorporate sustainable design and construction techniques?	Construction Early occupation Full build-out		
Climate Change			
• Does the proposal incorporate renewable energy?			

Assessment Criteria	Stage at which Relevant (Construction / Early Occupation / Full Build Out)	Details / evidence	Potential Health Impact
• Does the proposal ensure that buildings and public spaces are designed to respond to winter and summer temperatures, i.e. ventilation, shading and landscaping?	Construction Early occupation Full build-out	Sustainability is a guiding principle of the proposed Development. The Sustainability Statement sets out how sustainable design will be incorporated into the project, for example through renewable energy being integrated into people's homes and businesses. Healthy homes design ensures that homes are energy efficient and include low emission heating, cooling and ventilation.	Positive
• Does the proposal maintain or enhance biodiversity?	Construction Early occupation Full build-out	The Otterpool Park Masterplan takes into account the biodiversity of the site, striving to protect and enhance the ecological value of the area.	Positive
• Does the proposal incorporate sustainable urban drainage techniques?	Construction Early occupation Full build-out	The Water Strategy for Otterpool Park will provide sustainable urban drainage techniques (SuDS). When designed well, SuDS can increase property value, mitigate local flood risk, moderate microclimates, benefit ecology, provide new sources of water and create valuable amenity spaces for communities to enjoy.	Positive

APPENDIX B

Shepway Open Space Strategy

Shepway Open Space Strategy showing all open space in North Shepway and rough site area.



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