

COUNTRYSIDE · CONNECTED · CREATIVE

**ENVIRONMENTAL STATEMENT** 

OP5 CHAPTER 11 - HUMAN HEALTH

www.otterpoolpark.org March 2022



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# **OTTERPOOL PARK**

Environmental Statement Volume 2: Main ES Chapter 11: Human Health

MARCH 2022

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### 11 Human Health

#### 11.1 Introduction

- 11.1.1 This chapter of the ES assesses the impact of construction and operation of the proposed Development with respect to human health.
- 11.1.2 This chapter should be read in conjunction with Chapters 1 to 4 (introductory chapters), Chapter 6: Air Quality, Chapter 8: Climate Change, Chapter 10: Geology, Hydrogeology and Land Quality, Chapter 12: Landscape and Visual Impact, Chapter 13: Noise and Vibration, Chapter 14: Socio-economic Effects and Community, Chapter 15: Surface Water Resources and Flood Risk, Chapter 16: Transport and Chapter 17: Waste and Resource Management.
- 11.1.3 It has also been prepared alongside and informed by ES Appendix 11.1: Health Impact Assessment and ES Appendix 11.2: Retail Impact Assessment.

## **Relevant Aspects of the Proposed Development**

11.1.4 A full description of the proposed Development is given in ES Chapter 4: The Site and the Proposed Development. Specific aspects that relate to human health include the impacts of the delivery of up to 8,500 homes (Outline Planning Application) along with retail, commercial, leisure, education, health and community facilities, green infrastructure and public open space. Embedded design details and mitigation measures of relevance to human health topics are described in detail within the relevant Chapters of this ES.

## 11.2 Assessment Methodology

## Legislation, Policy and Guidance

11.2.1 This section provides an outline of the legislation, policy and guidance relevant to the topic of human health. The assessment has been undertaken in accordance with current national legislation, and national and local plans and policies relating to health in the context of the proposed Development. A summary of the relevant legislation and policies, the requirements of these policies and the project response is provided below.

#### Legislation

- 11.2.2 This impact assessment has been undertaken in accordance with current national policy, including the following:
  - Government White Paper: Healthy Lives, Healthy People (Ref 11.3);
  - National Planning Policy Framework (2021) (Ref 11.4);
  - A Green Future: Our 25 Year Plan to Improve the Environment (Ref 11.5)
  - Planning Practice Guidance (PPG) Healthy and safe communities (2019) (Ref 11.16);
- 11.2.3 At regional level, relevant documents include the South Kent Health and Well-being Strategy (Ref 11.6), based on the Kent Joint Strategic Needs Assessment (Ref 11.7), and which identifies current and future needs for adults and children. Kent County Council's Strategic Statement 2015-2020 (Ref 11.8) includes as one of its strategic outcomes for 'Kent communities to feel the benefits of economic growth by being in-work, healthy and enjoying a good quality of life'.
- 11.2.4 Relevant policy context at local level relating to health and well-being together with details relating to policy compliance is summarised in Table 11-1.

Table 11-1 Summary of project response to relevant policies

| Documents | Policy   | Summary of requirements  | Project Response   |
|-----------|--|--|--|
| Documents | Policy   | Summary of requirements  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.  | Project Response   |
|           | Folkestone and Hythe<br>Council Places and<br>Policies Local Plan<br>(Adopted 16<br>September 2020) (Ref<br>11.20) | 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 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. | A standalone HIA has been prepared for the proposed Development.  The proposed Development meets policy requirements in terms of good design, provision of open space and landscaping, fostering of a sense of place through community led projects, |
|           |  | 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.  | and active travel proposals.   |
|           |  | 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:  |  |
|           |  | Incorporate productive     landscapes in the design and layout of buildings and landscaping of all major developments;   |  |

| Documents | Policy   | Summary of requirements   | Project Response  |
|-----------|--|---|---|
|           |  | 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 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<br>District Council Core<br>Strategy Review<br>(2022) (Ref 11.21) | Policy SS6 (New Garden<br>Settlement – Development<br>Requirements) relates to the<br>provision of a new garden<br>settlement, to be developed on<br>garden town principles and which<br>will have a distinctive townscape  | The proposed Development is compliant with Policy SS6 in terms of the provision of a sustainable development that supports healthy livin through a range of |

| Documents | Policy | Summary of requirements  | Project Response                               |
|-----------|--------|--|--|
|           |        | 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. | environmental interventions and good practice. |
|           |        | 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.   |  |

#### Guidance

- 11.2.5 There are no specific published guidelines or requirements regarding the assessment of health impacts as part of an EIA. The assessment therefore seeks to identify and assess relevant changes which may arise from the proposed Development using available guidance for specific topic areas and professional judgement. Relevant guidance that has been used to inform the assessment of impacts on health includes:
  - Public Health England Health Impact Assessment in spatial planning (October 2020) (Ref 11.9)
  - NHS London Healthy Urban Development Unit (HUDU), Planning for Health: Rapid Health Impact Assessment Tool (fourth edition October 2019) (Ref 11.10) which identifies determinants of health likely to be influenced by a specific proposal; and
  - IEMA Health in Environmental Impact Assessment A Primer for a Proportionate Approach (June 2017) (Ref 11.11), which is primarily a discussion document designed to outline and identify issues arising from changes to EIA Directive 2014/52/EU that came into force in the UK in May 2017.

## **Consultation and Scoping**

#### Consultation

11.2.6 Table 11-2 provides a summary of the consultation undertaken for this chapter following the submission of the 2019 application (Y19/0257/ FH). The table summarises how the comments have been addressed in this chapter, where relevant.

Chapter 11: Human Health

Table 11-2 Summary of consultation

| Consultee/Contact/Date                | Summary of Consultee Issue  | Outcome   |
|---------------------------------------|---|---|
| Temple on behalf of F&HDC, April 2019 | Explanation of how sensitivity helps determine significance of effects  | Information on sensitivity of receptors provided at Section 11.3 and within the assessment Section 11.7   |
| Temple on behalf of F&HDC, April 2019 | Information on limitations and assumptions used for the assessment  | Provided at Section 11.2  |
| Temple on behalf of F&HDC, April 2019 | Baseline information should be provided.  | Baseline information has been added to Section 11.3.  |
| Temple on behalf of F&HDC, April 2019 | Additional information on the following assessments: 'Housing quality and design', 'Access to healthcare services and other social infrastructure', 'Crime reduction and personal safety', Access to work and training' and 'Air quality, noise and neighbourhood amenity' required | Additional information on identified assessments have been added to the ES, Section 11.4. Further information is available in the HIA in Sections 5.2, 5.3, 5.6, 5.8 and 5.9. |
| Temple on behalf of F&HDC, April 2019 | Cumulative impacts should be considered as part of the assessment.  | The cumulative impacts have been added to Section 11.5 and HIA Section 6.   |
| Temple on behalf of F&HDC, April 2019 | NTS needs to include a summary of conclusions of the Human Health Chapter, identifying significant effects.   | This is provided in the NTS, as Volume 1 of this ES.  |

#### Scoping

- 11.2.7 A previous EIA Scoping Opinion was undertaken for the 2019 application, where relevant, the comments from this process have been incorporated within Table 11-2. For this amended application, a request for a Scoping Opinion was submitted to F&HDC in June 2020. This outlined the work that had been undertaken to date and sets out the proposed approach to the EIA. A Scoping Opinion was issued by F&HDC in July 2020. Table 11-3 provides a summary of the scoping opinion comments relevant to this chapter, and how they have been addressed.
- 11.2.8 Additionally, a Scoping Addendum was submitted on 5 October 2021 to outline key changes to the application. These comprised additional land in the north-west corner of the site for provision of the waste water treatment works (WWTW), additional land for highway junction works at Newingreen Junction, minor amendments to clarify land ownership boundaries and a change in the assessment approach in relation to the future uses of Westenhanger Castle. A response was received from F&HDC on this Scoping Addendum as set out in Chapter 2:

EIA Approach and Methodology. All relevant changes since the submission of the scoping report have been assessed in this ES.

Table 11-3 Summary of EIA Scoping Opinion

| Consultee/Contact         | Summary Scoping Opinion Response   | Location in the ES  |  |  |
|---------------------------|--|---|--|--|
| 2020 Scoping Opinion      |  |   |  |  |
| Temple on behalf of F&HDC | Evidence of appropriate levels of community consultation and discussions with appropriate Directors of Public Health should be provided. The concerns and suggestions of local people (particularly vulnerable people) should be demonstrably sought and the ES should show how these views were taken into account in the design.   | Consultation on health needs occurred in 2020/21 to inform the Community Development and Facilities Strategy (ES Appendix 4.10). Information relevant to health impacts has been taken from this document and therefore consultation has indirectly informed this ES Chapter. Also, details on the how the views of the local community were taken into account are referred to in the Statement of Community Involvement (Ref 11.17) |  |  |
| Temple on behalf of F&HDC | Given the scale of the development, the assessment should include a more detailed consideration of the baseline communities living nearby, down to a Lower Super Output Area (LSOA) level. Any receptor groups that may be particularly sensitive to change (such as those in schools and care homes) should be identified and where these could be disproportionately affected, further mitigation should be identified | More detailed consideration of baseline information at LSOA level is provided in ES Section 11.3 where data is available. The assessment identifies effects to vulnerable groups in Section 11.4.   |  |  |
| Temple on behalf of F&HDC | The consideration of significant effects on population and human health should include a statement on the way in which any change can be expected to manifest itself e.g. a change in respiratory health, or in mental wellbeing   | This assessment is provided in Section 11.4, further detail on how any change would manifest is provided in the HIA.  |  |  |
| Temple on behalf of F&HDC | Assumptions and limitations are not identified in the 2020 Scoping Report and should be clearly outlined in the ES.  | Set out at Section 11.2 and throughout the assessment as appropriate  |  |  |
| Temple on behalf of F&HDC | It should be clear how conclusions in the HIA have been reached, for example statements of 'good design' should be supported by signposted evidence. How the development has adopted healthy design principles should be clearly referenced  | Sign-posted evidence is provided in this ES chapter and in the HIA.   |  |  |
| Temple on behalf of F&HDC | Although the rapid HIA process on which the Human Health Chapter will rely does not include a cumulative assessment methodology, it is important to remember that this is a human health Chapter of an ES, rather than a HIA and therefore should include aspects such   | This Chapter provides a human health assessment suitable for an ES, all aspects mentioned have been provided.   |  |  |

| Consultee/Contact         | Summary Scoping Opinion Response   | Location in the ES   |  |
|---------------------------|--|--|--|
|                           | as defining receptor sensitivity, impact magnitude, mitigation and cumulative effects.   |  |  |
| Temple on behalf of F&HDC | The demographic patterns are likely to be different to other large scale developments and F&HDC would wish to see sufficient population distribution analysis within the ES Chapter to reflect the particular population patterns of new settlements over time, insofar as they relate to health determinants  | This ES and HIA provide a proportionate level of assessment at this outline stage of the application to assess the health needs of the population arising from the proposed Development.   |  |
| Temple on behalf of F&HDC | As this is an outline application, there will be flexibility in the parameters presented. The Scoping Report commits to assessing the worst case scenario in line with 'Rochdale Envelope' principles. The parameters for assessment of the outline scheme elements should be clearly set out and should consider flexibility in size, massing, unit mix, tenure mix, provision of community facilities such as healthcare and education, and flexibility in commercial/retail use classes.  | The impacts of the proposed Development on health related infrastructure e.g. schools, healthcare etc. and employment generation reflect the needs generated by new population. To estimate the new population and workforce a reasonable and proportionate approach has been followed, in line with 'Rochdale Envelope' principles based on the maximum parameters set out in Chapter 4: The Site and Proposed Development. |  |
| Temple on behalf of F&HDC | The 2020 Scoping Report notes that there is a relatively long construction timeframe (25 years) (now 19 years) and phasing is not known. A reasonable worst case scenario approach should be taken to construction phasing, taking into account early phase occupation as well as the order in which retail and community infrastructure is delivered, which will have implications particularly for noise, air quality, traffic, socioeconomics, health, and landscape and visual impact. We recommend a section or broader commentary explaining how reasonable worst case assessments have been derived and whether any sensitivity testing has been applied to allow for flexibility within any future uses. Specific comments relating to phasing are provided in the topic sections below. | A proportionate approach has been followed in assessing the potential health impacts of the proposed Development following a likely scenario or a likely worst case scenario where appropriate (where is there is a substantial range in possible outcomes).   |  |
| Temple on behalf of F&HDC | Baseline data used for the previous 2019 Application should be 'in date' and updated, if required.   | Baseline updated to reflect latest available data  |  |

11.2.9 Temple, on behalf of F&HDC, undertook a review of the Draft ES in December 2021. The topic specific comment and response are provided in Table 11-4

Table 11-4 Summary of Draft ES Consultation Comments

| Consultee   | Comment   | Response   |
|---|---|--|
| Temple on behalf of F&HDC, 1 December 2021 Draft ES | The consideration of climate change within the health chapter does not sufficiently consider the effects of climate change on local residents, based on the UKCCRA. | The UK Climate Change Risk Assessment (2017) (UKCCRA) (Ref 11.15) has been referenced in the assessment of the proposed Development in terms of climate change on existing and future residents' health (section 11.5). Refer to Chapter 8: Climate for a more detailed assessment of vulnerability to climate change. |

## The Study Area

- 11.2.10 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 for LSOAs within and immediately adjacent to the proposed Development.
  - Wider:
    - District level: using data covering Folkestone & Hythe District Council.
    - Regional and National level: using data at Kent / South-East England and England level as appropriate, primarily for comparative purposes.
- 11.2.11 Where relevant, the spatial scopes of other environmental topics, which may be experienced over a wider area, are closely aligned to this assessment. For example, the potential extent of environmental effects such as noise and air quality. These spatial scopes are described in the relevant Chapters 16, 6 and 13 respectively of this Environmental Statement.

# **Methodology for Establishing Baseline Conditions**

11.2.12 This chapter has followed guidance produced by the NHS London Healthy Urban Development Unit (HUDU), Planning for Health: Rapid Health Impact Assessment Tool (fourth edition October 2019). 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'.

# **Temporal Scope**

- 11.2.13 Different impacts are likely to be experienced during different stages of the development. Accordingly, three stages have been identified during which it would be beneficial to consider specific health impacts. These are:
  - **Construction**: Impacts of the proposed Development on residents of existing settlements and properties.
  - **Early Occupation:** Impacts of the proposed Development on residents of existing settlements and properties as well as early occupants of Otterpool Park.

• Full Build-Out: Impacts of the proposed Development on residents of existing settlements and properties as well as all occupants of Otterpool Park.

## **Methodology for Establishing Baseline Conditions**

- 11.2.14 To establish baseline conditions a variety of data sources were utilised, including data from the following organisations/sources:
  - Office for National Statistics (ONS), for example Census data (2011) and annually produced population estimates (2020);
  - Public Health England localhealth.org website;
  - Department for Communities and Local Government (DCLG), for example Indices of Deprivation (2019).
- 11.2.15 Reviewing available research and information has enabled understanding of the links and potential interactions between topics scoped in to the HIA and the effects on health and well-being. A desk-top literature research has been undertaken to identify sources of information and findings of relevance to individual effects and topics, helping to inform the assessment. Further detail is provided in the HIA.
- 11.2.16 Environmental baseline information has been derived from other reports and documents prepared in support of the Outline Planning Application (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, Chapter 14: Socioeconomics and Community, Chapter 16: Transport and Chapter 17: Waste);
  - Design and Access Statement;
  - Energy Strategy (ES Appendix 4.9);
  - Housing Strategy (ES Appendix 4.14);
  - Transport Assessment (ES Appendix 16.5);
  - Community Development and Facilities Strategy (ES Appendix 4.10); and
  - Retail Impact Assessment (ES Appendix 11.2).

# **Defining the Sensitivity of Resource**

11.2.17 The relevant receptors for this heath assessment, are the new residents and nearby existing residents to the proposed Development. In addition, vulnerable people (including children, older people, people with disabilities and people from low income group) are treated as a separate receptor with a high sensitivity to interventions that could affect their health. The sensitivity of receptors are categorised as either 'High', Medium', or 'Low' using professional judgment as shown in the broad criteria in Table 11-5 below.

Table 11-5 Criteria for Determining Value (sensitivity) for Human Health

| Sensitivity | Criteria  |
|-------------|---|
| High        | Where a receptor has limited ability to respond to change   |
| Medium      | Where a receptor has some ability to respond to change  |
| Low         | Where a receptor is particularly responsive to change in that it is able to cope with change without substantial effects on its existing status or viability. |

11.2.18 The sensitivity of residents to interventions that could affect or change their health, is considered to be medium as the receptors have some ability to respond to change

## **Methodology for Assessing Impacts**

- 11.2.19 The approach to assessment for individual topics is described below:
  - Housing design and affordability: the assessment has considered the extent to which
    the quantum and mix of housing contributes to local housing need informed by the
    Housing Strategy (ES Appendix 4.14).
  - Access to healthcare services and other social infrastructure: an audit of the
    existing healthcare and social infrastructure within the local study area (to include
    education and healthcare facilities as well as wider community facilities such as
    community centres, places of worship, libraries and local shops) has been undertaken
    as part of the baseline assessment informed by the Community Development and
    Facilities Strategy (ES Appendix 4.10).
  - Access to open space and nature: an assessment has been undertaken of the existing open space, sports and play provision within the local study area informed by the Green Infrastructure Strategy (ES Appendix 4.11).
  - Accessibility and active travel: the assessment has considered the potential effects
    on health as a result of active travel provision, access to public transport and a review of
    the existing active travel and public transport infrastructure within the local study area
    including Public Rights of Way (PRoW), footpaths and cycle routes as well as the public
    transport network informed by the Transport Strategy (ES Appendix 16.5).
  - Access to healthy food: health implications arising from access to healthy food have been considered, taking account of the existing local food environment.
  - Access to work and training: health implications arising from access to work and training opportunities associated with the proposed Development informed by Chapter: 14 Socio-economics and Community.
  - Social cohesion and lifetime neighbourhoods: the assessment has considered the
    potential effects on health as a result of impacts on social cohesion from the proposed
    Development. This includes impacts associated with both physical and mental health,
    taking into account research findings into the impacts of new residential developments,
    including social isolation and other issues associated with early occupation.
  - Air quality, noise and neighbourhood amenity: the assessment has considered the
    potential impacts on health as a result of changes in air quality, neighbourhood amenity
    and noise informed by Chapter: 6 Air Quality, Chapter: 12 Landscape Visual Impact and
    Chapter: 13 Noise.
  - Minimising the use of resources: the assessment has considered the potential effects
    on health as a result of the use of resources associated with the construction and
    operation of the proposed Development. The assessment has been informed by
    Chapter: 17 Waste and Resource Management.
  - **Climate change**: potential effects on health as a result of impacts related to climate change associated with the proposed Development informed by Chapter: 8 Climate.
- 11.2.20 For each health determinant a summary assessment of the significance of effect for the construction, early occupation and operation phases is provided. The assessment presents the significant health effects (both positive and negative) that would arise from the implementation of the proposed Development.
- 11.2.21 The health assessment also identifies vulnerable groups; these include children, older people, people with disabilities and people from low income groups. Vulnerable people will

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experience differential impacts, but for ease of understanding in this assessment vulnerable populations are considered collectively using general risk factors and professional judgement.

11.2.22 Mitigation measures from other Chapters have been assumed in the main assessment table and therefore there is no discrete mitigation section in this Health Chapter.

#### Defining the Impact Magnitude

11.2.23 Impact magnitude has been assessed by consideration of the factors shown at Table 11-6.

Table 11-6 Impact magnitude table

| Impact<br>Magnitude      | Criteria  |
|--------------------------|---|
| High                     | An impact that will be very severe/beneficial or likely to affect large numbers of people, businesses or groups usually anticipated at a local-wide or subregional level. And/or will continue beyond the project life and effectively constitutes a permanent, long term impact.             |
| Medium                   | An impact that will be likely to affect a moderate number of people or groups in the wider local area. And/or will continue beyond the project life so that there is an effect on the base case experienced for a medium to long term duration.   |
| Low                      | An impact that may affect a small number of people or groups in the local authority area and does not extend beyond the life of the project so that the base case is not affected beyond a short- or medium-term duration.  |
| Negligible or<br>Neutral | An impact that is temporary in nature and is unlikely to measurably affect the wellbeing of people or a lower value resource so that the existing base case remains constant. Neutral impacts could include impacts that are fully mitigated so in effect are not experienced by the receptor |

# **Assessing the Significance of Effect**

11.2.24 The assessment of significance has been informed by the sensitivity of the receptor and the magnitude of impact as set out in Table 11-7.

Table 11-7 Significance Criteria

| Value/      | Magnitude of Impact          |                              |                                 |                                 |  |  |
|-------------|------------------------------|------------------------------|---------------------------------|---------------------------------|--|--|
| Sensitivity | High                         | Medium                       | Low                             | Negligible/Neutral              |  |  |
| High        | Major                        | Moderate negative / positive | Moderate negative / positive    | Minor negative / positive       |  |  |
| Medium      | Moderate/Major               | Moderate negative / positive | Minor negative / positive       | Negligible/Neutral/No<br>Effect |  |  |
| Low         | Moderate negative / positive | Minor negative / positive    | Negligible/Neutral/No<br>Effect | Negligible/Neutral/No<br>Effect |  |  |

- 11.2.25 Table 11-8 sets out further detail on the significance of effects categories. For the purposes of this assessment, only moderate and major effects have been classified as significant. The table sets out criteria for the:
  - change identification of the aspect of the proposed Development that would cause the change, how the health determinant might change as a result (including whether the change would be beneficial or adverse).

- 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.
- duration an assessment of the duration of change (temporary or permanent).

Table 11-8 Assessment of Significance of Effect of Health Effects

| Significance of Effect | Definition  | Intensity and<br>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.  | pative if they could lead deaths, acute or chronic or mental ill health.  affect either both physical al health, either directly or ne wider determinants of d wellbeing.  ects can be important local, gional and national  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 |  |
| 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 cumulative effect of a set of moderate effects could lead to a major effect. These effects could be important locally or regionally. | 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. |
| 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 local considerations.  | 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.   | The exposures tend to be of low intensity and/or over a small area and/or affect a small number of   | Short term duration Intermittent, temporary or permanent in nature.  |

| Significance of<br>Effect | Definition   | Intensity and Exposure   | Duration   |
|---------------------------|--|--|--|
|                           | Reductions in noise, odour, visual amenity, etc. are examples of effects, which could be local considerations.   | people e.g.<br>approximately less than<br>100.   |  |
| 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.   |

## **Limitations of Assessment and Assumptions**

#### Limitations

- 11.2.26 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.
- 11.2.27 There are no additional limitations of the assessment other than those mentioned in other Chapters referred to (notably Chapter 6: Air Quality, Chapter 8: Climate, Chapter 12: Landscape and Visual Impact, ES Chapter 13: Noise, ES Chapter 14: Socio-economics and Community, Chapter 16: Transport and ES Chapter 17: Waste and Resources Management).

#### **Assumptions**

- 11.2.28 For the purposes of this assessment the construction phase is assumed to take place over the next 19 years, commencing from approximately 2023 with the development complete by approximately 2042.
- 11.2.29 There are no additional assumptions of the assessment other than those mentioned in other Chapters referred to (notably Chapter 6: Air Quality, Chapter 8: Climate, Chapter 12: Landscape and Visual Impact, Chapter 13: Noise, Chapter 14: Socio-economics and

Community, Chapter 16: Transport and ES Chapter 17: Waste and Resources Management).

### 11.3 Description of Baseline Conditions

## **Existing Conditions**

11.3.1 This section presents a description of the existing and future baseline for the local and wider study areas, with comparative information for regional and national areas as relevant.

#### Population

11.3.2 Table 11-9 shows the population profile for the district 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 11-9 Population Levels and Change (%)

| Study Area                     | 2001       | 2011       | Population<br>Growth 2001-<br>2011 (%) | 2020<br>Population<br>Estimate | Population<br>Growth 2011-<br>2020 (%) |
|--------------------------------|------------|------------|--|--------------------------------|--|
| Folkestone &<br>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

- 11.3.3 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.
- 11.3.4 Table 11-10 shows the age profile for each of the study areas (using 2020 population estimate data). The district 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 11-10 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    |
| 25-49     | 28.1                        | 30.4 | 31.2       | 32.6    |
| 50-64     | 21.7                        | 19.9 | 19.7       | 19.2    |
| 65+       | 25.0                        | 20.3 | 19.7       | 18.5    |

Source: Mid-Year Population Estimates, 2020

11.3.5 Table 11-11 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 11-11 Ethnicity (%)

| Ethnicity                                | Local Study<br>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<br>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

11.3.6 Table 11-12 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 11-12 Housing Tenure (%)

| Housing Tenure       | Local Study<br>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

11.3.7 Housing tenure data is shown in Table 11-13. 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 11-13 Housing Tenure (%)

| Housing Tenure   | Local Study<br>Area | Folkestone<br>& Hythe<br>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    |

| Housing Tenure   | Local Study<br>Area | Folkestone<br>& Hythe<br>District | Kent | South East | England |
|------------------|---------------------|-----------------------------------|------|------------|---------|
| Living rent-free | 1.6                 | 1.3                               | 1.3  | 1.3        | 1.4     |

Source: Census Data 2011

#### **Socio-Economic Characteristics**

- 11.3.8 Headline economic data taken from the document 'Shepway in Context' (Ref 11.13) 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%).
- 11.3.9 Table 11-14 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 11-14 Economic Activity and Inactivity (%)

| Economic Activity   | Folkestone &<br>Hythe District | Kent | South East |
|---------------------|--------------------------------|------|------------|
| Economically Active | 84.5                           | 81.1 | 82.3       |
| 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        |

| Economic Activity            | Folkestone &<br>Hythe District | Kent | South East |
|------------------------------|--------------------------------|------|------------|
| Economically Inactive        | 15.5                           | 18.9 | 17.7       |
| Looking after family / home* | -                              | 22.0 | 20.8       |

|                 | Folkestone &<br>Hythe District | Kent | South East |
|-----------------|--------------------------------|------|------------|
| Long-term sick* | -                              | 20.7 | 19.6       |

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

11.3.10 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).

#### **Health Profile**

- 11.3.11 Public Health England prepares 'Health Profiles' that provide an overview of health for each local authority in England. 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.
- 11.3.12 As shown in Table 11-15, 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 11-15 Life expectancy 2017-2019

| Indicator                 | Folkestone & Hythe | 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

11.3.13 As shown in Table 11-16, 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 11-16 Life expectancy and causes of death per 100,000 people

| Indicator   | Folkestone and Hythe | 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

11.3.14 Table 11-17 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 11-17 General Health

| General Health   | Local Study<br>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

11.3.15 Table 11-18 shows the proportion of residents experiencing long-term health problems in 2011. 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 11-18 Long Term Health Problem or Disability

| Long-term health problem or disability | Local Study<br>Area | Folkestone &<br>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

- 11.3.16 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.
- 11.3.17 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 latest mortality figures, dementia and Alzheimer's disease is the leading cause of death for people in England and Wales in 2019. Of all deaths registered in 2019 in England and Wales 12.5% were due to dementia and Alzheimer's disease (Ref 11.14).
- 11.3.18 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 (Type 1 and Type 2, although around 90% have Type 2), including one million people who have not been diagnosed (Ref 11.9).
- 11.3.19 Folkestone and 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. This suggests that people may not be as willing to seek medical help as some other areas and indicates a potential health risk in the district..
- 11.3.20 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 11-19 Health diagnosis (%)

| Health diagnosis                     | Folkestone and<br>Hythe | South East of<br>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**

11.3.21 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 11-20 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 southeast England.

Table 11-20 Density of fast-food outlets (per 100,000 population) (2018)

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

Source: Public Health England

11.3.22 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 11-21 shows that childhood obesity for year 6 children is greater in Folkestone & Hythe than the regional and national average for England.

Table 11-21 Children's Weight Indicators 2018/19 (% of total population group)

| Weight                     | Folkestone and Hythe | 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

11.3.23 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.
- 11.3.24 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 11.19).
- 11.3.25 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 11.19). The report outlines the importance of considering mental health in all aspects of life.
- 11.3.26 The Measuring National Well-being programme 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 11-22 shows that, in Folkestone and Hythe happiness and anxiety levels are higher than regional and national averages.

Table 11-22 Personal Well-being Data

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

- 11.3.27 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.
- 11.3.28 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 potentially 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.
- 11.3.29 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.

#### **Future Baseline**

- 11.3.30 The future baseline is the situation that would prevail should a proposed Development not proceed. The future baseline is further defined by the assessment scenario that the topic adheres to. The future baseline for Human Health has identified the following:
  - The SHMA (2017) (Ref 11.22) uses population projections to show Shepway's population increasing over the period 2014-2037 from 109,500 people to 126,500; this is equivalent to an average growth in households of 538.

## 11.4 Design and Mitigation

- 11.4.1 The following section sets out:
  - The embedded design measures, including good practice approaches, relied on in this assessment; and
  - The potential significant effects remaining after the application of embedded design measures and good practice approaches, and any additional mitigation required to address these potential significant effects.
- 11.4.2 The potential significant effects prior to additional mitigation are identified in the Assessment Summary table.
- 11.4.3 Environmental considerations have influenced the proposed Development throughout the design development process, from early options assessment through to refinement of the Project design. An iterative process has facilitated design updates and improvements, informed by environmental assessment and input from the Project design teams, stakeholders and public consultation.
- 11.4.4 Impacts would be reduced by measures embedded into the design of the development, as well as by additional mitigation, and together these measures would act to avoid, reduce and mitigate effects. The measures have been summarised by whether they are embedded design measures, which are secured through the documents for approval, or additional mitigation secured, for example, by planning condition or legal agreement. Embedded measures are described as measures that form part of the design, developed through the iterative design process and good practice standard approaches and actions commonly used on development projects to avoid or reduce environmental impacts, typically applicable across the whole Development. Additional mitigation is described as any additional Development-specific measures needed to avoid, reduce or offset potential impacts that could otherwise result in effects considered significant in the context of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.
- 11.4.5 This chapter also relies on mitigation measures set out within the other topic chapters, in particular Chapter 6: Air Quality, Chapter 8: Air Quality, Chapter 12: Landscape and Visual, Chapter 13: Noise and Vibration, Chapter 16: Transport, Chapter 17: Waste and Resource Management. Refer to these chapters for the relevant mitigation.

## **Embedded Design Measures**

#### Construction

11.4.6 To safeguard the quality of the receptors, an Outline Code of Construction Practice (CoCP) has been developed to form part of the application (ES Appendix 4.17). This document details best practice construction techniques and methodologies and describes the management of environmental impacts during construction. It is expected that a planning condition would be established requiring the outline CoCP be further developed into a detailed CoCP.

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- 11.4.7 The following best practice measures are included in the CoCP:
  - controls of working hours to address impacts on residential amenity and public safety
  - natural surveillance i.e. the ability to see into and out of public areas and routes during construction, appropriate fencing, signage and safety precautions
  - details on the proposed routes for construction traffic and how information about construction activities will be communicated to existing residents
  - Where access to a property would be significantly affected as a result of the Project, an alternative means of access would be provided where practicable.
  - Measures associated with the design of construction compounds. Where practical, construction compounds would be located to avoid or minimise environmental and community impacts, provide the best access for personnel and deliveries in relation to major structures and worksites, and meet other construction requirements for the Project.
  - Construction compounds would be located away from PRoWs, National Trails and cycle
    routes where practicable. Landscaping would be strategically used in order to reduce the
    visual impact of construction compounds on neighbouring land uses (such as residential
    properties) as well as for users of PRoW, in addition to reducing noise impacts.

#### Operation

- 11.4.8 The design of the proposed Development includes the following:
  - Provision of a range of housing types and tenures to meet local housing needs (both currently and in the future) and specifically including affordable and older peoples housing. Circa. 22% of the dwellings on site would be affordable housing. These measures are secured through the Development Specification (ES Appendix 4.1) and the Housing Strategy (ES Appendix 4.14).
  - Provision of flexible floorspace for health and community services to accommodate and promote community interaction, empowerment and community development as secured through the Development Specification (ES Appendix 4.1) and the Community Delivery and Facilities Strategy (ES Appendix 4.10).
  - Provision of Special Education Needs as part of the proposed Development as secured through the Development Specification (ES Appendix 4.1) and the Community Delivery and Facilities Strategy (ES Appendix 4.10).
  - Provision of education facilities (early years, primary and secondary) within the site as secured through the Development Specification (ES Appendix 4.1) and the Community Delivery and Facilities Strategy (ES Appendix 4.10).
  - Provision of open space, sports and play provision to meet the needs of the proposed Development, in addition to greenways throughout the development connecting to existing communities as secured through the Parameter Plans (ES Appendix 4.2),

Strategic Design Principles (ES Appendix 4.3), Development Specification (ES Appendix 4.1) and Green Infrastructure Strategy (ES Appendix 4.11).

- Integration of the proposed Development with the local public transport network and incorporation of a comprehensive network of pedestrian and cycle routes to connect with other phases of the proposed Development as secured through the Parameter Plans (ES Appendix 4.2), Development Specification (ES Appendix 4.1) and Transport Strategy (ES Appendix 16.5).
- Promotion of community safety through good scheme design and enhanced natural surveillance as secured through the Strategic Design Principles (ES Appendix 4.3).
- Provision of community orchards and allotments to encourage healthy eating as secured through the Development Specification (ES Appendix 4.1).
- Provision of employment opportunities as secured through the Development Specification (ES Appendix 4.1).
- Ensure that high design standards regarding energy efficiency/use of renewable energy are implemented in housing as secured in the Energy Strategy (ES Appendix 4.9).

## **Additional Mitigation**

- 11.4.9 An iterative appraisal of the proposed Development taking into account the embedded design measures and good practice was undertaken to identify any potentially significant effects that would require additional mitigation. Effects on human health that could be significant and therefore required further consideration for additional mitigation were as follows:
  - Access to healthcare services and other social infrastructure for existing and future residents; and
- 11.4.10 The following additional mitigation measure is required during construction/early occupation:
  - An early occupation phase includes provision of education and community space as secured through development triggers in the S106 agreement.

#### 11.5 Assessment of Residual and Cumulative Effects

11.5.1 The following section sets out the residual effects following the implementation of the embedded measures and additional mitigation set out above.

#### **Assessment**

11.5.2 Table 11-23 summarises the effects on human health as a result of the proposed Development in relation to a variety of relevant factors and assessed at the three stages of construction, early occupation and full operation/completion of the Development. The potential effects are assessed against the magnitude of change and compared to the sensitivity of the receptor, in relation to baseline conditions as per the methodology described at Section 11.2 above. Mitigation measures to address health effects during the three stages are proposed and described in detail within relevant topic Chapters (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 Resource Management) and are summarised in Table 11-23 below.

Table 11-23 Summary of health effects

| Factor creating effect on Human Health | Embedded Measures and Additional Mitigation  | Residual Effects:<br>Construction  | Residual Effects: Early<br>Occupation   | Residual Effects: Full<br>Operation   |
|--|--|--|---|---|
| Housing design and affordability       | A range of housing types and tenures to be included to meet local housing needs (current and future), specifically including affordable and older people's housing. Up to 22% of the dwellings on site would be affordable housing. Secured through the Development Specification (ES Appendix 4.1) and the Housing Strategy (ES Appendix 4.14). | 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 of low impact magnitude, which when combined with the medium sensitivity of receptor, | The proposed Development would have a beneficial long-term impact on health through the provision of new housing. The 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 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 | The health effects relating to housing design and affordability are considered to be similar for both the early occupation and operational phases. Therefore, the new housing proposed is considered to have a high impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall major positive effect on the health of longer-term residents and therefore, significant, including vulnerable populations. |

| Factor creating effect on Human Health                        | Embedded Measures and<br>Additional Mitigation  | Residual Effects:<br>Construction  | Residual Effects: Early Occupation   | Residual Effects: Full<br>Operation  |
|---|---|--|--|--|
|   |   | results in an overall minor negative effect on existing residents, therefore, not significant. The effect for vulnerable populations is considered the same as for the general population.   | 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 is considered to have a high impact magnitude, which when combined with the medium/high sensitivity of receptor, results in an overall major positive significant impact on the health of both early occupiers and longer term residents. The assessment is considered the same for vulnerable populations. |  |
| Access to healthcare services and other social infrastructure | The Code of Construction Practice (CoCP) addresses issues including residential amenity (working hours, construction traffic routes, communication).  Mitigation relating to air quality, visual amenity, noise and transport is described in | 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 | 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  | At Otterpool Park, 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 |

| Factor creating effect on Human Health | Em<br>Add   |
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|  | Prov<br>Nee<br>Dev<br>throus<br>Spe<br>and<br>and<br>App          |
|  | Prov<br>(ear<br>secu<br>secu<br>Dev<br>App<br>Com<br>Faci<br>4.10 |
|  | The<br>Dev  |

# **Embedded Measures and Additional Mitigation**

Chapters 6, 12, 13 and 15 respectively.

Provision of flexible floorspace for health and community services to accommodate and promote community interaction, empowerment and community development as secured through the Development Specification (ES Appendix 4.1) and the Community Delivery and Facilities Strategy (ES Appendix 4.10)

Provision of Special Education Needs as part of the proposed Development as secured through the Development Specification (ES Appendix 4.1) and the Community Delivery and Facilities Strategy (ES Appendix 4.10).

Provision of education facilities (early years, primary and secondary) within the site as secured through the Development Specification (ES Appendix 4.1) and the Community Delivery and Facilities Strategy (ES Appendix 4.10).

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

# Residual Effects: Construction

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 are considered to be of low impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall **minor negative** 

# Residual Effects: Early Occupation

issues). All age groups and backgrounds are potentially vulnerable to these issues.

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 is considered to have a low impact magnitude. which when combined with the medium sensitivity of receptor, results in an overall minor positive effect on access to healthcare services and other social infrastructure (not significant) for both new and existing residents. The early provision of services and facilities and use of the local surgeries, together with management of construction impacts through the Code of Construction Practice (CoCP)

# Residual Effects: Full Operation

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 in Tier 2 of the detailed masterplan and will inform the content of reserved matters applications within Tier 3.

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

| Factor creating effect on Human Health | Embedded Measures and Additional Mitigation   | Residual Effects:<br>Construction  | Residual Effects: Early<br>Occupation   | Residual Effects: Full<br>Operation  |
|--|---|--|---|--|
|  | including the provision of education and community space as secured through development triggers in the S106 agreement.   | effect on existing residents, therefore, <b>not significant</b> on access to healthcare services and other social infrastructure including vulnerable populations.   | are anticipated to mitigate against further negative impacts.  The assessment is considered the same for vulnerable populations.  | social infrastructure are considered to be high impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall major positive effect for all residents and is therefore significant including on vulnerable populations.   |
| Access to open space and nature        | The CoCP addresses issues including residential amenity (working hours, construction traffic routes, communication).  Mitigation relating to air quality, visual amenity, noise and transport is described in ES Chapters 6, 12, 13 and 16 respectively. Ensuring the provision of open space, sports and play provision to meet the needs of the population of Otterpool Park, in addition to greenways throughout the development connecting to existing communities.  Provision of open space, sports and play provision to meet the needs of the proposed Development, in addition to greenways throughout the development connecting to existing communities as secured through the Parameter Plans (ES Appendix 4.2), Strategic Design Principles (ES | Public footpaths within the application site 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 are considered to be of low impact magnitude due to temporary severance, which when combined with the medium sensitivity of receptor, results in an overall minor negative effect on existing residents, therefore, not significant. The health effect is considered the same for vulnerable populations. | During the early build out of the development, open space provision is likely to be delivered alongside new homes, services and facilities. The effects during early occupation are therefore regarded to be the same as during operation providing a low impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall minor positive health benefit to all residents (not significant) including vulnerable populations. | 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.  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, supporting behavioural change through good design. Vulnerable populations that may particularly benefit from this effect include children and low-income households, through the |

| Factor creating effect on Human Health | Embedded Measures and Additional Mitigation   | Residual Effects:<br>Construction  | Residual Effects: Early Occupation   | Residual Effects: Full<br>Operation   |
|--|---|--|--|---|
|  | Appendix 4.3), Development<br>Specification (ES Appendix 4.1)<br>and Green Infrastructure<br>Strategy (ES Appendix 4.11)  |  |  | creation of walkable neighbourhoods and improved footpath links. The health impact is thereby considered to be medium impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall moderate positive effect for access to open space and nature for all residents and therefore is significant including on vulnerable populations.   |
| Accessibility and active travel        | The CoCP addresses issues including residential amenity (working hours, construction traffic routes, communication).  Mitigation relating to air quality, visual amenity, noise and transport is described in Chapters 6, 12, 13 and 16 respectively. Also, the proposed Development will be integrated with the local public transport network and will incorporate a comprehensive network of pedestrian and cycle routes to connect with other phases of the Development and provide access to infrastructure and services.  Construction traffic will be restricted from travelling past schools and where this is not possible, vehicles will be | 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. The effects during this stage are considered to be low impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall minor negative effect on existing residents and is therefore not significant. The health effect is considered the same for vulnerable populations. | 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 low impact magnitude, which when combined with the | 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; Chapter 17: Transport 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 |

| Factor creating effect on Human Health | Embedded Measures and Additional Mitigation   | Residual Effects:<br>Construction | Residual Effects: Early<br>Occupation  | Residual Effects: Full<br>Operation  |
|--|---|-----------------------------------|--|--|
|  | 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.  |                                   | medium sensitivity of receptor, results in an overall <b>minor positive</b> effect for all residents and is therefore, <b>not significant</b> including on vulnerable populations. | 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 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 as shown in the Development Areas and |                                   |  | 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. |
|  | Movement Corridors Parameter Plans (ES Appendix 4.2).  Integration of the proposed Development with the local public transport network and incorporation of a comprehensive network of  |                                   |  | 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.  |
|  | pedestrian and cycle routes to<br>connect with other phases of<br>the proposed Development as<br>secured through the Parameter<br>Plans (ES Appendix 4.2),<br>Development Specification (ES<br>Appendix 4.1) and Transport  |                                   |  | Vulnerable populations that may benefit particularly include young people, through the provision of appropriate walking and cycling routes to school and community facilities.   |
|  | Strategy.   |                                   |  | The proposed Development would therefore have a medium impact magnitude, which when  |

| Factor creating effect on Human Health | Embedded Measures and Additional Mitigation   | Residual Effects:<br>Construction   | Residual Effects: Early<br>Occupation  | Residual Effects: Full<br>Operation  |
|--|---|---|--|--|
|  |   |   |  | combined with the medium sensitivity of receptor, results in an overall moderate positive long-term effect on the health of all local residents, including on vulnerable populations, by virtue of improvements in accessibility and active travel and is therefore, significant.  |
| Crime reduction and personal safety    | The CoCP addresses issues including communication with residents during construction. Also, Community safety promoted through good scheme design and enhanced natural surveillance.  The Code of Construction Practice (CoCP) prepared for the project includes information about construction activities and how this will be communicated to existing residents. The CoCP also includes 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).  Provision of play space, strategic park, playing fields, community space and primary school provision in early phases | 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.  During the construction phase, the proposed Development is considered to have a low impact magnitude in terms of people's fear of crime after factoring the embedded design measures.  When combined with the medium sensitivity of receptor, results in an overall minor negative effect on the health of local residents and therefore, not significant.  The health effect on vulnerable groups is considered to be the | 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 the 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 the early phase.  Construction will continue throughout the early occupation period, and therefore the issues associated with fear of crime and construction activities | The incorporation of good design (i.e. as set out in the Strategic Design Principles document for Otterpool Park) into the proposed Development will help to ensure that crime and the fear 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 medium impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall moderate positive effect on the health of |

| Factor creating effect on Human Health | Embedded Measures and Additional Mitigation  | Residual Effects:<br>Construction  | Residual Effects: Early<br>Occupation  | Residual Effects: Full<br>Operation   |
|--|--|--|--|---|
|  | of the proposed Development as secured through development triggers in the S106 agreement.  Promotion of community safety through good scheme design and enhanced natural surveillance as secured through the Strategic Design Principles (ES Appendix 4.3). | same following embedded design measures.   | highlighted earlier are likely to continue, mitigated through measures outlined in the CoCP.  As a result of these combined factors, the proposed Development could potentially have a low impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall minor negative effect (not significant), 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 design measures. | new and existing residents, making it <b>significant</b> . The health effect on vulnerable groups is considered to be the same.   |
| Access to healthy food                 | Inclusion of community orchards and allotments to encourage healthy eating as set out in the Development Specification (ES Appendix 4.1) and the Green Infrastructure Strategy (ES Appendix 4.11).   | 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 | The exact detail of 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 health effect of the proposed Development in terms of access to healthy food choices during early occupation  | 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. |

| Factor creating effect on Human Health | Embedded Measures and Additional Mitigation   | Residual Effects:<br>Construction  | Residual Effects: Early<br>Occupation   | Residual Effects: Full<br>Operation   |
|--|---|--|---|---|
|  |   | of access to healthy food choices during construction is considered to be of low impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall minor negative effect (not significant) on existing residents. The health effect is considered the same for vulnerable populations.  | is considered to be of low impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall minor positive effect for all residents and therefore, not significant including on vulnerable populations.   | Residents will continue to have opportunities to grow / acquire fresh produce from the allotment areas and community orchards.  The health effect of the proposed Development in terms of access to healthy food choices during operation is likely to have a medium impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall moderate positive effect for new and existing residents therefore, significant including on vulnerable populations. |
| Access to work and training            | The CoCP sets out details of construction employment. Increased employment opportunities, higher quality and more accessible employment locations and scope for more highly skilled jobs.  Provision of employment opportunities at the proposed Development as set out in the Development Specification (ES Appendix 4.1). | 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 | 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 development of shops and services on-site.  Again, vulnerable groups that may benefit in particular include low-income populations and the unemployed.  Both new and existing residents may benefit from the creation of | 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    |

| Factor creating effect on Human Health | Embedded Measures and Additional Mitigation | Residual Effects:<br>Construction  | Residual Effects: Early<br>Occupation   | Residual Effects: Full<br>Operation  |
|--|---|--|---|--|
|  |   | 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.  | these opportunities, with the health effects considered to be medium impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall moderate positive effect and therefore, significant. The health effect is considered the same for vulnerable populations. | 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.  Vulnerable populations that may benefit in particular include low-   |
|  |   | 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. |   | income groups and the unemployed.  Health effects are considered to be of medium impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall moderate positive – impacting on physical and mental health and general wellbeing as a result of improved lifestyles, income and feelings of self-worth for new and existing residents. The health impact is considered the same for vulnerable populations. The impact on health is therefore, significant. |
|  |   | Vulnerable groups that may benefit in particular include low-income populations and the  |   |  |

| Factor creating effect on Human Health       | Embedded Measures and Additional Mitigation  | Residual Effects:<br>Construction   | Residual Effects: Early<br>Occupation   | Residual Effects: Full Operation  |
|--|--|---|---|---|
|  |  | unemployed (particularly young people who may benefit from access to apprenticeships and construction training programmes).   |   |   |
|  |  | 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 medium impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall moderate positive effect for residents in the wider district, therefore significant. The health effect is considered the same for vulnerable populations. |   |   |
| Air quality, noise and neighbourhood amenity | The CoCP address issues including residential amenity (working hours, construction traffic routes, communication). | Construction phase impacts, including on human health, from dust emitted by construction activities and vehicle movements should be no worse  | 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 | The operation of the proposed Development is not expected to result in any significant residual effect on local air quality. The slight adverse impacts |

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| Factor creating effect on Human Health |
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## **Embedded Measures and Additional Mitigation**

Mitigation relating to air quality, visual amenity, noise and transport is described in Chapters 6, 12, 13 and 16 respectively.

Provision of green infrastructure as set out in the Green Infrastructure Strategy (ES Appendix 4.11).

Appropriate phasing to enable areas of green space (e.g. community orchards and allotments) to be completed during an early phase to promote community interaction as secured through development triggers in the S106 agreement.

## Residual Effects: Construction

than negligible following mitigation.

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 at Tier 2 and 3 of the application. Any element of the construction works that may have a significant adverse effect will be mitigated appropriately.

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.

Adverse effects on visual impact from the construction period would be mitigated. The masterplan and phased approach to construction

## Residual Effects: Early Occupation

concentrations at existing receptors are negligible for all pollutants and total concentrations across the application site are well below relevant annual mean Air Quality Standards 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 additional 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,

# Residual Effects: Full Operation

(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).

Although 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, therefore, not to have a significant residual effect.

Planting and habitat creation will be used to separate neighbourhoods within the settlement itself and provide a visual and physical buffer from the M20 and railway for noise and air quality mitigation purposes.

| Factor creating effect on Human Health      | Embedded Measures and Additional Mitigation  | Residual Effects:<br>Construction   | Residual Effects: Early<br>Occupation   | Residual Effects: Full<br>Operation  |
|---|--|---|---|--|
|   |  | 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 and neighbourhood amenity are considered to be of low impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall minor negative effect on existing residents during construction and therefore, not significant.  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. | noise and on neighbourhood amenity are considered to be of low impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall minor negative, therefore, not significant on both new and existing residents.  The health effects on vulnerable groups are considered the same due to the temporary nature of these effects. | The health impacts on all residents from air quality, noise and neighbourhood amenity are considered to be of low impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall minor negative and therefore, not significant due to mitigation measures resulting in less pollutants, noise and visual disturbance in the local area.  The sensitivity of receptor for vulnerable groups is considered the same for vulnerable groups. |
| Social cohesion and lifetime neighbourhoods | The CoCP addresses issues including communication with residents during construction.  The proposed Development includes provision of flexible floorspace for health and community facilities with opportunity to accommodate a range of uses in order to promote community interaction, | There is potential for adverse effects during construction as a result of reduced community interaction due to construction activities creating barrier effects and reducing amenity; however there are not proposed to be any changes in access to existing community centres or facilities.   | 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                                 | The proposed Development includes for the creation of new neighbourhoods, linked together through new accesses and infrastructure, and including the creation of community facilities.  Vulnerable populations include those for whom mobility may be impaired, such as people with disabilities and the elderly, who  |

| Factor creating effect on Human Health | Embedded Measures and Additional Mitigation   | Residual Effects:<br>Construction  | Residual Effects: Early<br>Occupation   | Residual Effects: Full<br>Operation   |
|--|---|--|---|---|
|  | empowerment and community development.  Ensure appropriate phasing to enable community areas / green spaces to be completed during an early phase to promote community interaction. | 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.  Overall, the health effects are considered to be of low impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall minor negative, due to the temporary nature of these effects and therefore, not significant.  The health effects on vulnerable groups are considered the same. | backgrounds are potentially vulnerable to these issues.  Phasing of the proposed Development importantly incorporates opportunities for community interaction at the earliest stage. Early phases of the development include the provision of education and community centre space. With such measures provided, the effect on health on all residents from early occupation is considered to be of low impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall minor negative effect and therefore, not significant. The health effect is considered the same for vulnerable populations. | may find it difficult to undertake social interactions.  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.  It is considered that the proposed Development will have a medium impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall moderate positive effect on the health of all residents and therefore, significant. The health effect is considered the same for vulnerable populations. |

| Factor creating effect on Human Health  Embedded Measures Additional Mitigation   |   | Residual Effects: Early<br>Occupation   | Residual Effects: Full<br>Operation  |
|---|---|---|--|
| Mitigation measures are in Chapter 17: Waste an Resource Management ES, and the Waste Strat Appendix 17.1).  An Energy Strategy (ES Appendix 4.9) has been developed for the propose Development and sets of targets for the initial phase the development, based policy and Building regul The key commitments of strategy include a Fabric approach, electrically position using low carbon heat so and a commitment to a strategy include a carbon emission reduction new homes against current Building Regulation. | Resource Management, 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) 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 | Construction effects as described above would continue during the early occupation period.  As during the construction phase, the proposed Development is considered to have a minor negative impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall minor negative effect (not significant) on health of all residents as a result of measures to minimise use of resources and appropriate waste management. The health effect is considered the same for vulnerable populations. | 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.  It is anticipated that operational waste would be managed efficiently, minimising waste arisings and diverting waste from landfill. A Waste Strategy (ES Appendix 17.1) has been developed as an embedded design measure to provide a planned approach to resource as well as waste management. A key element is the carbon emission reduction commitment. The Waste Strategy 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. |

| Factor creating effect on Human Health | Embedded Measures and Additional Mitigation   | Residual Effects:<br>Construction  | Residual Effects: Early<br>Occupation  | Residual Effects: Full<br>Operation  |
|--|---|--|--|--|
|  |   | health of existing residents as a result of measures to minimise use of resources and appropriate waste management. The health effect is considered the same for vulnerable populations.   |  | The proposed Development is considered to have a low impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall minor negative effect (not significant) on health for new and existing residents as a result of the minimisation of resources used during the operational phase. The health effect is considered the same for vulnerable populations.  |
| Climate change                         | Mitigation measures associated with the effects on climate from greenhouse gas (GHG) emissions are set out in Chapter 8: Climate Change.  The proposed Development will ensure that high design standards regarding energy efficiency / use of renewable energy are implemented throughout all housing types and tenures.  Homes and buildings that are adaptive to climate change, including storms, and extreme temperatures. Buildings and places are adaptable to future needs.  An Energy Strategy (ES Appendix 4.9) has been developed for the proposed | The design of the proposed Development aims to reduce GHG emissions by avoiding, preventing and exploring alternative lower carbon options. As set out in the UKCCRA (Ref 11.15) this will help to address issues of overheating that could cause adverse effects on people's health and wellbeing. The use of materials and techniques aims to efficiently minimise carbon output. Materials for the construction process where practical will be sourced locally to minimise further travel emissions.  There are not considered to be any significant health effects arising from issues associated with climate change as a result | 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 of all residents during this stage and therefore, not significant. The health effect is considered the same for vulnerable populations. | A wide range of measures have been put in place to reduce CO <sub>2</sub> emissions and save energy as well as the incorporation of strategies to respond to environmental events such as flooding and overheating as set out as a potential risk in the UKCCRA (Ref 11.15).  The overall effects on health of all residents are considered to have low impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall minor positive effect (not significant). The health effect is considered the same for vulnerable populations. |

| Factor creating effect on Human Health | Embedded Measures and Additional Mitigation  | Residual Effects:<br>Construction  | Residual Effects: Early<br>Occupation | Residual Effects: Full<br>Operation |
|--|--|--|---------------------------------------|-------------------------------------|
|  | 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 and a commitment to a 50% carbon emission reduction for new homes against current Building Regulation.  Further mitigation measures are detailed in the CoCP which will serve as a live document for the contractor. | of the construction of the proposed Development. Therefore, the health effects from the construction phase from the proposed Development is considered to have negligible impact magnitude, which when combined with the medium sensitivity of receptor, results in an overall <b>Negligible</b> effect ( <b>not significant</b> ). The health effect is considered the same for vulnerable populations. |                                       |                                     |

#### 11.6 Cumulative Effects

### **Cumulative effects with other developments**

11.6.1 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 for 8,500 homes will be fully built out over a period of 19 years (2023-2042). Over the duration of the build-out period there is likely to be a cumulative effect on the health of existing and future 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 would be the additional demand for local infrastructure and services, including schools and healthcare facilities on existing communities. The other health factors assessed in this chapter are not considered to be significant when considered cumulatively with other schemes as they are either effectively site specific effects, such as air quality, noise etc. or wider effects that are considered negligible such as effect on climate change and use of resources.

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- 11.6.2 Several applications are for significant levels of new residential development and associated infrastructure. Further details, including a map, of the cumulative developments is presented 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.
- 11.6.3 These applications are generally supported with various social and community infrastructure. The Community Development and Facilities Strategy 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. With embedded design measures, the cumulative effect on all aspects of health assessed are considered to be neutral and therefore, **not significant.**

## Cumulative Effects with Framework Masterplan

11.6.4 Taking into account also the intention to deliver 10,000 homes at Otterpool Park as part of the Otterpool Framework Masterplan (OFM) project over a period of approximately 21 years, 2023-2044, the cumulative effect on community infrastructure has been considered and additional provision made for a 2FE primary school, if required. The cumulative effect on all aspects of health assessed are considered to be neutral and therefore, **not significant.** 

### **Cumulative Effects with Permitted Waste Facility**

11.6.5 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 Permitted Waste Facility will be delivered, if it was, then there would 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. Therefore, it is considered that the cumulative effects with the Permitted Waste Facility would be **not significant**.

### 11.7 Monitoring

11.7.1 No monitoring requirements have been identified relevant to human health topic.

### 11.8 Assessment Summary

11.8.1 Table 11-24 provides an assessment summary with respect to Human Health, including the potential significant effect with embedded design measures in place, and additional measures required to reach the residual significance of effect.

Table 11-24 Assessment Summary

| Receptor                      | Factor<br>effecting<br>Human<br>Health                        | Embedded Design Measures   | Potential Significant Effect (prior to- Additional Mitigation)? | Phase | Additional<br>Mitigation          | Additional<br>Mitigation<br>Delivery<br>Mechanism | Residual<br>Effect and<br>Significance |
|-------------------------------|---|--|---|-------|-----------------------------------|---|--|
| Existing and future residents |   | None   | Not Significant   | С     | No additional mitigation required | N/A   | Minor negative; Not Significant        |
| Existing and future residents | Housing design and affordability                              | A range of housing types and tenures to be included to meet local housing needs (current and future), specifically including affordable and older people's housing. Circa 22% of the dwellings on site will would be affordable housing. Measures secured through the Development Specification (ES Appendix 4.1) and Housing Strategy (ES Appendix 4.14). | Significant<br>(positive)                                       | O (E) | No additional mitigation required | N/A   | Major positive;<br>Significant         |
| Existing and future residents |   | A range of housing types and tenures to be included to meet local housing needs (current and future), specifically including affordable and older people's housing. Measures secured through the Development Specification (ES Appendix 4.1) and Housing Strategy (ES Appendix 4.14).  | Significant<br>(positive)                                       | O (F) | No additional mitigation required | N/A   | Major positive;<br>Significant         |
| Existing and future residents | Access to Healthcare Services and Other Social Infrastructure | The Code of Construction Practice (CoCP) addresses issues including residential amenity (working hours, construction traffic routes, communication).   | Not Significant   | С     | No additional mitigation required | N/A   | Minor negative;<br>Not Significant     |

| Receptor                      | Factor<br>effecting<br>Human<br>Health | Embedded Design Measures  | Potential<br>Significant<br>Effect (prior to-<br>Additional<br>Mitigation)? | Phase | Additional<br>Mitigation  | Additional<br>Mitigation<br>Delivery<br>Mechanism | Residual<br>Effect and<br>Significance |
|-------------------------------|--|---|---|-------|---|---|--|
|                               |  | Mitigation relating to air quality, visual amenity, noise and transport is described in Chapters 6, 12, 13 and 15 respectively.   |   |       |   |   |  |
| Existing and future residents |  | The proposed Development includes provision of education and community space. Measures secured through the Development Specification (ES Appendix 4.1) and Community Delivery and Facilities Strategy (ES Appendix 4.10). | Significant<br>(negative)   | O (E) | An early occupation phase includes provision of education and community | Planning condition and S106.                      | Minor positive;<br>Not Significant     |
|                               |  | Including provision of flexible floorspace for health and community services to accommodate and promote community interaction, empowerment and community development.   |   |       |   |   |  |
| Existing and future residents |  | Special Education Needs (SEN) provision as part of the development.  Provision of education facilities (early years, primary and secondary) within the site.  | Significant (positive)  | O (F) | No additional mitigation required                                       | N/A   | Major positive;<br>Significant         |
|                               |  | Measures secured through the Development Specification (ES Appendix 4.1), Community Delivery and Facility Strategy and Community  |   |       |   |   |  |

| Receptor                      | Factor<br>effecting<br>Human<br>Health | Embedded Design Measures  | Potential<br>Significant<br>Effect (prior to-<br>Additional<br>Mitigation)? | Phase | Additional<br>Mitigation          | Additional<br>Mitigation<br>Delivery<br>Mechanism | Residual<br>Effect and<br>Significance |
|-------------------------------|--|---|---|-------|-----------------------------------|---|--|
|                               |  | Delivery and Facilities Strategy (ES Appendix 4.10).  |   |       |                                   |   |  |
| Existing and future residents |  | The CoCP addresses issues including residential amenity (working hours, construction traffic routes, communication).  Mitigation relating to air quality, visual amenity, noise and transport is described in Chapters 6, 12, 13 and 16 respectively.   | Not Significant   | С     | No additional mitigation required | N/A   | Minor negative; Not Significant        |
| Existing and future residents | Access to Open<br>Space and<br>Nature  | Ensuring the provision of open space, sports and play provision to meet the needs of the population of Otterpool Park, in addition to greenways throughout the development connecting to existing communities. Measures secured through the Development Specification (ES Appendix 4.1) and Green Infrastructure Strategy (ES Appendix 4.11). | Not Significant   | O (E) | No additional mitigation required | N/A   | Minor positive; Not Significant        |
| Existing and future residents |  | Ensuring the provision of open space, sports and play provision to meet the needs of the population of Otterpool Park, in addition to greenways throughout the development connecting to existing communities. Measures secured   | Significant (positive)  | O (F) | No additional mitigation required | N/A   | Moderate<br>positive;<br>Significant   |

| Receptor                      | Factor<br>effecting<br>Human<br>Health | Embedded Design Measures  | Potential Significant Effect (prior to- Additional Mitigation)? | Phase | Additional<br>Mitigation          | Additional<br>Mitigation<br>Delivery<br>Mechanism | Residual<br>Effect and<br>Significance |
|-------------------------------|--|---|---|-------|-----------------------------------|---|--|
|                               |  | through the Development<br>Specification (ES Appendix 4.1) and<br>Green Infrastructure Strategy (ES<br>Appendix 4.11).  |   |       |                                   |   |  |
| Existing and future residents | Accessibility<br>and Active<br>Travel  | The CoCP addresses issues including residential amenity (working hours, construction traffic routes, communication).  Mitigation relating to air quality, visual amenity, noise and transport is described in Chapters 6, 12, 13 and 16 respectively.   | Not Significant   | С     | No additional mitigation required | N/A   | Minor negative;<br>Not Significant     |
| Existing and future residents |  | As for construction.  | Not Significant   | O (E) | No additional mitigation required | N/A   | Minor positive;<br>Not Significant     |
| Existing and future residents |  | The proposed Development will be integrated with the local public transport network and will incorporate a comprehensive network of pedestrian and cycle routes to connect with other phases of the Development and provide access to infrastructure and services as secured through the Development Specification (ES Appendix 4.1), Parameter Plans (ES Appendix 4.2) and Transport Strategy. | Significant<br>(positive)                                       | O (F) | No additional mitigation required | N/A   | Moderate<br>positive;<br>Significant   |

| Receptor                      | Factor<br>effecting<br>Human<br>Health        | Embedded Design Measures   | Potential<br>Significant<br>Effect (prior to-<br>Additional<br>Mitigation)? | Phase | Additional<br>Mitigation          | Additional<br>Mitigation<br>Delivery<br>Mechanism | Residual<br>Effect and<br>Significance |
|-------------------------------|---|--|---|-------|-----------------------------------|---|--|
| Existing and future residents | Crime<br>Reduction and<br>Community<br>Safety | The CoCP addresses issues including communication with residents during construction.  | Not Significant   | С     | No additional mitigation required | N/A   | Minor negative;<br>Not Significant     |
| Existing and future residents |   | As for construction.   | Not Significant   | O (E) | No additional mitigation required | N/A   | Minor negative;<br>Not Significant     |
| Existing and future residents |   | Community safety promoted through good scheme design and enhanced natural surveillance as secured through the Strategic Design Principles.                   | Significant (positive)  | O (F) | No additional mitigation required | N/A   | Moderate positive; Significant         |
| Existing and future residents | Access to<br>Healthy Food                     | None   | Not Significant   | С     | No additional mitigation required | N/A   | Minor negative ; Not Significant       |
| Existing and future residents |   | Provision of community orchards and allotments through the Development Specification (ES Appendix 4.1) and Green Infrastructure Strategy (ES Appendix 4.11). | Not Significant   | O (E) | No additional mitigation required | N/A   | Minor positive;<br>Not Significant     |
| Existing and future residents |   | Inclusion of community orchards and allotments to encourage healthy eating as secured through the Development Specification (ES Appendix 4.1).               | Significant (positive)  | O (F) | No additional mitigation required | N/A   | Moderate<br>positive;<br>Significant   |

| Receptor                      | Factor<br>effecting<br>Human<br>Health                | Embedded Design Measures  | Potential Significant Effect (prior to- Additional Mitigation)? | Phase | Additional<br>Mitigation          | Additional<br>Mitigation<br>Delivery<br>Mechanism | Residual<br>Effect and<br>Significance |
|-------------------------------|---|---|---|-------|-----------------------------------|---|--|
| Existing and future residents |   | Employment creation as a result of construction of the proposed Development.  | Significant (positive)  | С     | No additional mitigation required | N/A   | Moderate positive; Significant         |
| Existing and future residents | Access to Work  | As for construction.  | Significant (positive)  | O (E) | No additional mitigation required | N/A   | Moderate<br>positive;<br>Significant   |
| Existing and future residents | and Training  | Increased employment opportunities as secured through the provision of employment floorspace in the Development Specification (ES Appendix 4.1).  | Significant (positive)  | O (F) | No additional mitigation required | N/A   | Moderate<br>positive;<br>Significant   |
| Existing and future residents | Air Quality,<br>Noise and<br>Neighbourhood<br>Amenity | The CoCP address issues including residential amenity (working hours, construction traffic routes, communication).  Mitigation relating to air quality, visual amenity, noise and transport is described in Chapters 6, 12, 13 and 16 respectively. | Not Significant   | С     | No additional mitigation required | N/A   | Minor negative; Not Significant        |
| Existing and future residents |   | As for construction.  | Not Significant   | O (E) | No additional mitigation required | N/A   | Minor negative;<br>Not Significant     |
| Existing and future residents |   | None.   | Not Significant   | O (F) | No additional mitigation required | N/A   | Minor negative; Not Significant        |

| Receptor                      | Factor<br>effecting<br>Human<br>Health            | Embedded Design Measures   | Potential<br>Significant<br>Effect (prior to-<br>Additional<br>Mitigation)? | Phase | Additional<br>Mitigation  | Additional<br>Mitigation<br>Delivery<br>Mechanism | Residual<br>Effect and<br>Significance |
|-------------------------------|---|--|---|-------|---|---|--|
| Existing and future residents |   | The CoCP addresses issues including communication with residents during construction.  | Not Significant   | С     | No additional mitigation required   | N/A   | Minor negative; Not Significant        |
| Existing and future residents | Social Cohesion<br>and Lifetime<br>Neighbourhoods | Includes provision of flexible floorspace for health and community facilities with opportunity to accommodate a range of uses in order to promote community interaction, empowerment and community development as secured through the Development Specification (ES Appendix 4.1) and Community Delivery and Facilities Strategy (ES Appendix 4.10). | Not Significant   | O (E) | Ensure appropriate phasing to enable community areas / green spaces to be completed during an early phase to promote community interaction. | S106  | Minor negative; Not Significant        |
| Existing and future residents |   | As for early occupation.   | Significant (positive)  | O (F) | No additional mitigation required   | N/A   | Moderate<br>positive;<br>Significant   |
| Existing and future residents | Minimising the<br>Use of<br>Resources             | Mitigation measures are set out in ES Chapter 17: Waste and Resource Management.   | Not Significant   | С     | No additional mitigation required   | N/A   | Minor negative; Not Significant        |
| Existing and future residents |   | Mitigation measures are set out in ES Chapter 17: Waste and Resource Management.   | Not Significant   | O (E) | No additional mitigation required   | N/A   | Minor negative; Not Significant        |
| Existing and future residents |   | As for early occupation.   | Not Significant   | O (F) | No additional mitigation required   | N/A   | Minor negative; Not Significant        |

| Receptor                      | Factor<br>effecting<br>Human<br>Health | Embedded Design Measures   | Potential<br>Significant<br>Effect (prior to-<br>Additional<br>Mitigation)? | Phase | Additional<br>Mitigation             | Additional<br>Mitigation<br>Delivery<br>Mechanism | Residual<br>Effect and<br>Significance       |
|-------------------------------|--|--|---|-------|--------------------------------------|---|--|
| Existing and future residents | Climate Change                         | Mitigation measures associated with the effects on climate from GHG emissions are set out in ES Chapter 8: Climate Change.   | Not Significant   | С     | No additional mitigation required    | N/A   | Negligible; Not<br>Significant               |
| Existing and future residents |  | Ensure that high design standards regarding energy efficiency / use of renewable energy are implemented throughout all housing types and tenures as secured through the Energy Strategy (ES Appendix 4.9). |   | O (E) | No additional<br>mitigation required | N/A   | Negligible; <b>Not</b><br><b>Significant</b> |
|                               |  | Homes and buildings that are adaptive to climate change, including flood risk, storms, and extreme temperatures. Buildings and places are adaptable to future needs, refer to Chapter 8: Climate Change.   | Not Significant   |       |                                      |   |  |
| Existing and future residents |  | As for construction and early occupation.  | Not Significant   | O (F) | No additional mitigation required    | N/A   | Minor positive;<br>Not Significant           |

Notes: Phase column, Construction = C, operation = O; O (E) = early occupation and O(F) = full occupation

## 11.9 References

| Reference  | Title  |
|------------|--|
| Reference  |  |
| Ref 11.1   | Department of Health and Social Care, White Paper: Healthy Lives, Healthy People: Our Strategy for Public Health in England, 2010        |
| Ref 11.2   | Folkestone & Hyde District Council, 2017. A Charter for Otterpool Park   |
| Ref 11.3   | Department of Health and Social Care, White Paper: Healthy Lives, Healthy People: Our Strategy for Public Health in England, 2010        |
| Ref 11.4   | Ministry of Housing, Communities and Local Government, National Planning Policy Framework, July 2021                                     |
| Ref 11.5   | Department for Environment, Food and Rural Affairs, A Green Future: Our 25 Year Plan to Improve the Environment, 2018                    |
| Ref 11.6   | Kent County Council on behalf of the Kent Health and Wellbeing Board, Kent Health and Wellbeing Strategy 2014 (extended to 2021)         |
| Ref 11.7   | Kent County Council, Kent Joint Strategic Needs Assessment reports   |
| Ref 11.8   | Kent County Council, Increasing Opportunities, Improving Outcomes, Kent County Council Strategic Statement 2015-20                       |
| Ref 11.9   | Public Health England Health Impact Assessment in spatial planning (October 2020)  |
| Ref 11.10  | NHS London Healthy Urban Development Unit (HUDU), Planning for Health: Rapid Health Impact Assessment Tool (fourth edition October 2019) |
| Ref 11.11  | IEMA Health in Environmental Impact Assessment – A Primer for a Proportionate Approach (June 2017)                                       |
| Ref 11.12  | Reference not used   |
| Ref 11.13  | Shepway District Council, 2014. Shepway in Context- a Socio-economic and Property Analysis   |
| Ref 11.14  | Deaths registered in England and Wales: 2020. ONS, 2021  |
| Ref 11.15  | Climate Change Committee; UK Climate Change Risk Assessment (2017)   |
| Ref 11.16  | Planning Practice Guidance (PPG) – Healthy and safe communities (2019)   |
| Ref 11.17  | Otterpool Park Statement of Community Involvement (2021), Application Ref. OP15  |
| Ref. 11.18 | Mental Health Foundation: Tackling social inequalities to reduce mental health problems (2020)   |
| Ref. 11.19 | Health Matters: Reducing Health Inequalities in Mental Illness (2018)  |
| Ref. 11.20 | Folkestone and Hythe Places and Policies Local Plan (Adopted 16 September 2020)  |
| Ref. 11.21 | Folkestone and Hythe (2022) Core Strategy Review   |
| Ref. 11.22 | Strategic Housing Market Assessment, Folkestone and Hythe District Council, March 2017   |

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