OTTERPOOL PARK

COUNTRYSIDE • CONNECTED • CREATIVE

APPLICATION DOCUMENT | 3.21

ENVIRONMENTAL STATEMENT

www.otterpoolpark.org

Author: Arcadis

February 2019

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APPLICATION CONTENTS

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ENVIRONMENTAL STATEMENT | VOLUME 1
NON-TECHNICAL SUMMARY

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1 Introduction

1.1 What is Otterpool Park?

Otterpool Park is an exciting opportunity for a new garden town within the Folkstone and Hythe District. The proposed development design has been informed by its setting within the surrounding landscape and aims to integrate with existing communities to provide new homes, employment, community and leisure facilities. It strives to achieve high levels of sustainability in a manner that integrates and benefits the wider district.

The Otterpool park proposals would create a new landscape-led community that integrates blue and green infrastructure with existing historic assets and communities. The vision for Otterpool Park is to create a new sense of place, which not only provides new green spaces, parks, allotments, sports facilities, a nature reserve, a woodland country park and a riverside landscape for the new community, but more importantly increases the provision of access to green spaces, amenity facilities and the countryside for existing residents in the surrounding areas.

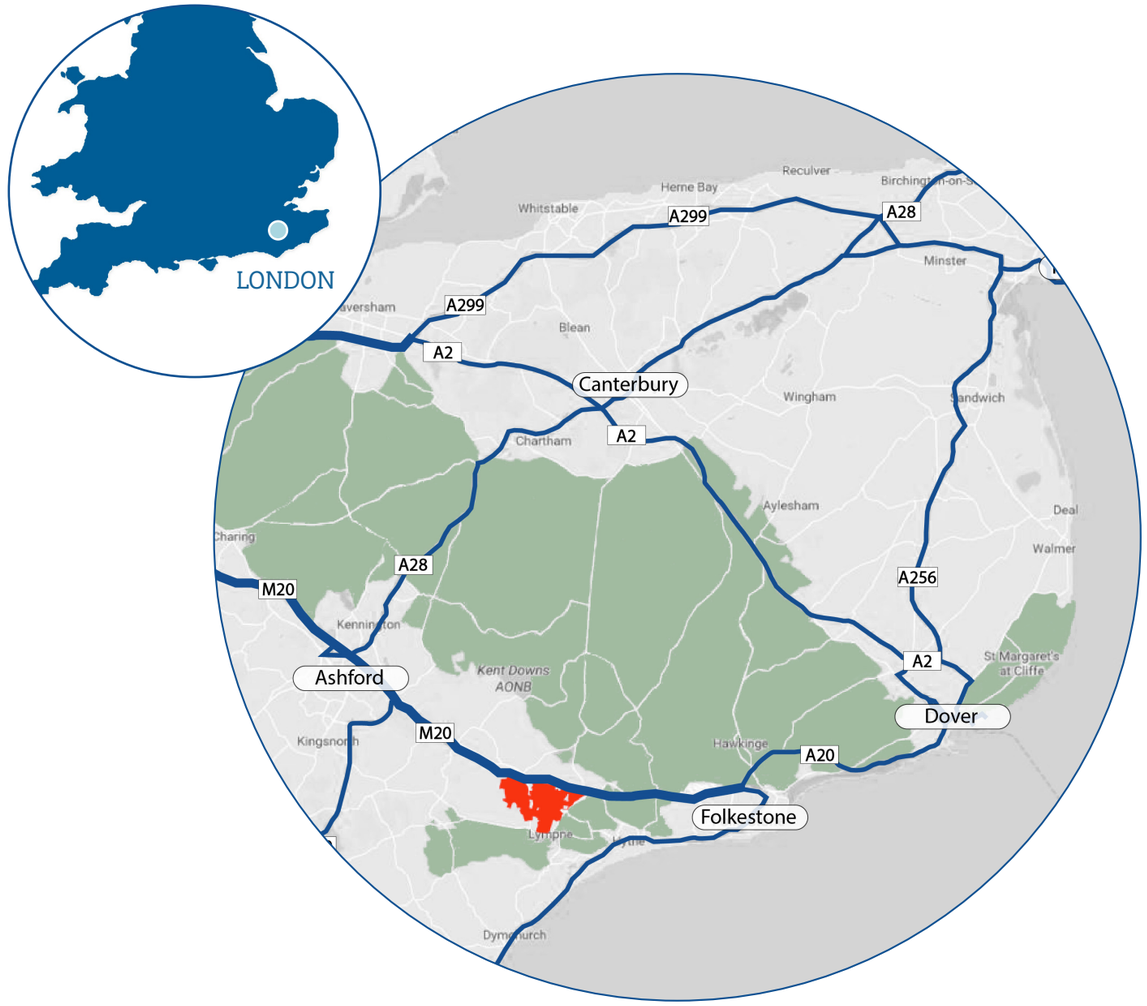
Folkestone & Hythe District Council and Cozumel Estates are seeking to obtain outline planning permission from Folkestone & Hythe District Council as local planning authority to develop a new garden settlement of 8,500 homes and other associated town centre uses, known as 'Otterpool Park', and which represents approximately three quarters of the Otterpool Framework Masterplan Area. The location of the proposed Otterpool Park development is provided below.

The Otterpool Park site is currently covers 580 hectares and is occupied by farm land and associated farm buildings and outhouses as well as a number of houses and local businesses. The site has had a long history of former uses including military structures relating to former Lympne Airfield during World War 2 and residential, commercial farming and some industrial activities. There is also archaeological evidence of roman and pre-historic activity having occurred on site.

As part of the outline planning application, an Environmental Impact Assessment has been undertaken. The relevant legislation which determines the requirement for *EIA is the Town and Country Planning (Environmental Impact Assessment) Regulations, 2017* referred to here as 'the EIA Regulations'. Further explanation of the EIA process is provided later in this document.

The findings of the EIA have been reported in an Environmental Statement that has been prepared to accompany the planning application. The likely significant environmental effects of Otterpool Park during its construction and when in operation have been considered, together with any mitigation measures necessary to reduce or minimise any adverse environmental impacts identified during the assessment.

This report summarises the findings of the Environmental Statement in non-technical language, as required by the Environmental Impact Assessment Regulations. It is provided to allow a wider public understanding of the proposed development and the potential environmental effects, both beneficial and adverse.



1.2 Why is the Development Needed?

There is a need to provide more housing in Kent and the site is currently allocated for housing within Folkestone & Hythe District Council's draft 'Development Plan' for the district. The Folkestone & Hythe District Council Submission Draft Core Strategy Review (2019) sets out strategic development through plan and decision-making including delivery of new homes within the area by 2037 based on needs assessed through its Strategic Housing Market Review. Creating a new community at Otterpool Park will offer opportunities for long-term housing growth and commercial development, thereby making a significant contribution towards employment within Kent. The Development Plan identifies a larger site known as the Otterpool Framework Masterplan Area as suitable for the development of a Garden Town providing up to 10,000 homes and associated town centre uses. The UK Government announced its support for Otterpool Park in November 2016.

1.3 Environmental Impact Assessment

EIA is a process through which the likely significant environmental effects of a proposed development can be identified, assessed and, wherever possible, mitigated by avoiding impacts or reducing them to acceptable levels. This process and its outcomes are reported in the Environmental Statement that will be considered in full by the decision-making authority (in this instance Folkestone & Hythe District Council) prior to determining the planning application.

In summary, the EIA has involved:

- Gathering information on the existing environment through desk-based methods and field surveys since 2016 and identified environmental constraints to the development;
- Focusing on environmental and other constraints has been a key part of the design process so that the proposed development avoids adverse environmental effects by avoiding or minimising built development parcels in environmentally sensitive areas wherever possible;
- Identifying and assessing potential environmental effects that may arise from the construction and operation of the Otterpool Park, and whether the effects are considered to be 'significant' in the context of the meaning in the EIA Regulations; and
- Proposing outline mitigation measures that need to be put in place to control 'significant' environmental effects during construction (eg dust, noise), and in terms of design to mitigate any adverse operational effects (eg an acoustic fence) to acceptable levels.

The full results of the EIA process are reported in the Otterpool Park Environmental Statement 2019.
This can be visited at Folkestone & Hythe Council website https://www.folkestone-hythe.gov.uk/planning.

1.4 Scoping the EIA and Consultation

The scope of the EIA was agreed with Folkestone & Hythe District Council through a scoping process that explains the current site conditions, the development proposals, and what environmental impacts could occur that might be significant. Issues of significance are 'scoped in' to the EIA topics to be included in the EIA, and how they should be assessed. Some potential environmental impacts that have been considered unlikely to be significant were scoped out and therefore not considered further during the EIA.

A Scoping Report was issued to Folkestone & Hythe District Council in April 2018 outlining all aspects of the proposed development with potential to generate environmental effects, as well as the scoped-out issues. It proposed the key issues to be addressed in the ES based on the likelihood of significant environmental effects being generated during construction or operation of the proposed development.

In response, a formal Scoping Opinion was issued by Folkestone & Hythe District Council in June 2018. The Scoping Opinion takes account of Folkestone & Hythe's consultation with a wide range of statutory consultees and stakeholders including the Kent Downs AONB (Area of Outstanding Natural Beauty) Unit, Natural England, Environment Agency, Historic England, Kent County Council, Ashford Borough Council and Canterbury City Council. The Scoping Opinion confirmed that the following environmental topics should be assessed in detail as part of the EIA, and reported in the ES:

- Agriculture and Soils
- Air Quality
- Biodiversity
- Climate Change
- Cultural Heritage
- Geology, Hydrogeology and Land Quality
- Human Health
- Landscape and Visual Impact
- Noise and Vibration
- Socioeconomic Effects and Community
- Surface Water Resources and Flood Risk
- Transport
- Waste and Resource Management

The findings of the assessments for each of these environmental topics is summarised below.

Consultation with key statutory and non-statutory bodies has been critical to the evolution of the garden town design. It has focused attention on key environmental issues and has driven regular dialogue with consultees to discuss methodologies for undertaking further investigations and identifying mitigation measures for the design and for the construction stages. As such, consultation has formed a key part of the EIA process and has continued through all stages of the Otterpool Park design.

2 The Site

The site of the proposed development is located on 580 hectares of land directly south-west of Junction 11 of the M20 motorway, and south of the Channel Tunnel Rail Link or 'High Speed 1' line in the administrative area of Folkestone & Hythe District Council in Kent. The site is centred around the general area of Otterpool Manor buildings. Much of the site is occupied by agricultural uses and associated farm holdings, as well as some residential and light commercial properties. A range of historic land uses associated with both rural and commercial and industrial activities have been present on the site.

The site is located within an area that has been formed from the geological development of the Kent North Downs. The site topography generally slopes from the south toward the north-west where the East Stour River traverses the site from west to east, with variable undulating landforms present across the central parts.

The site is linked off-site to the north-west and south-east via the A20 Ashford Road) that traverses the central part of the site. The site is bounded by a section of Harringe Lane and farmland to the west and Harringe Brooks Woods and more farmland to the south-west. The southern boundary wraps around Lympne industrial estate and either side is surrounded by farmland. The south-eastern and eastern boundary is bordered by the settlements of Lympne and Newingreen and further north the eastern boundary runs parallel with the A20 before terminating at the intersection of the A20 (Ashford Rd) with the Channel Tunnel Rail Link or 'High Speed 1' line. The northern site boundary runs largely parallel with and adjacent to the rail line, and borders the grounds of Westenhanger Castle, and the settlement of Sellindge. Within the main site area the site boundary excludes parcels of land at Otterpool Manor, Upper Otterpool and south of Westenhanger.

The site is characterised by the East Stour River that flows from east to west across the northern part of the site and to which a number of smaller tributaries and drainage channels are connected. The majority of these water courses flow from east and south to the north and west. The site has some associated flood risk associated with the East Stour River and its tributaries, as discussed in Section 15.

There are a mix of land uses on the site although a large proportion of the site area is occupied by farmsteads and associated agricultural land for a mixture of arable and livestock breeding purposes. There are farmsteads located at Somerfield Court Farm (west of Barrow Hill, Sellindge), Farm (east of Barrow Hill Sellindge), Hillhurst Farm (east of Westenhanger) and several smaller practices located adjacent to the A20 in the area of Newingreen.

Land within the site that lies to the north of the A20 is mainly occupied by a mixture of agricultural land, the East Stour River watercourses and a man-made lake in the centre of the former Folkestone Racecourse which is now closed. Hillhurst Farm lies in the north-eastern corner of the site, whilst a number of disused racecourse pavilion buildings are present directly east of Westenhanger Castle. Barrow Hill Farm lies 50m east of the northern stretch of the A20 that runs through Barrow Hill, Sellindge. Close to the intersection of the A20 and Otterpool Lane is a café and small lorry parking area, beyond further north of which lies Barrow Hill Farm. At the eastern end of the A20 within the site lies Holiday Extras corporate office and a farm building.

To the south of the A20, the land east of Otterpool Lane is predominantly occupied by farm land and a number of small holdings along the A20 itself. Part of the East Stour traverses the site from south to north, and disused quarry workings south of the A20 form a designated a geological Site of Special Scientific Interest.

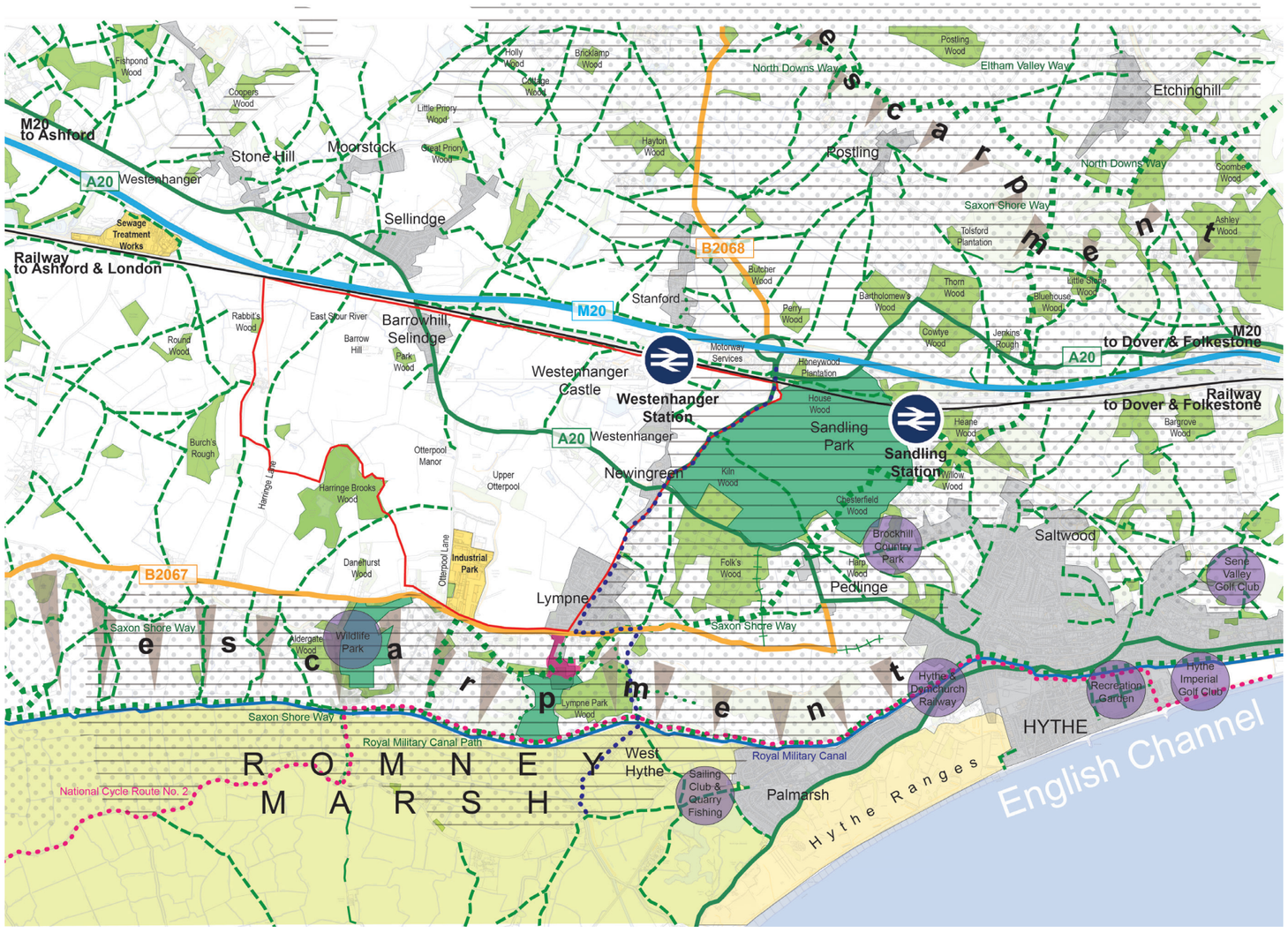
Landscape context

KEY

- Red Line Boundary
- National Cycle Route : Route 2 - Garden of England
- Local Cycle Route
- National Trail
- Footpath
- Byeway
- Bridleway
- Other public right of way
- Motorway
- Key Primary Routes
- Key Secondary Route
- Railway
- Royal Military Canal
- Existing Woodland
- Existing Settlements
- Existing Industrial/Commercial Areas
- Local leisure facility

Landscape Designations (local)

- Kent Downs Area of Outstanding Natural Beauty (AONB)
- Registered Parks and Gardens
- Open Access Land
- Special Landscape Area (Shepway District Council)
- Conservation Area



Land to the west of Otterpool Lane and the northern stretch of the A20 is occupied mainly by agricultural land and the East Stour. Other features in the area include Park Wood and Somerfield Court Farm located west of Barrow Hill, Sellindge, and Springfield Wood located adjacent to the western site boundary.

The surrounding area is occupied by a mainly agricultural land uses and to a lesser extent, light industrial, commercial and residential uses. Much of the northern site boundary is bordered by the CTRL line, beyond which lies the M20 motorway that connects London with the Kent coast and ultimately Europe via the Channel Tunnel. The strip of land located between the CTRL line and the M20 consists of agricultural land, Westenhanger railway station and a motorway service station adjacent to junction 11 of the M20. Further to the north from the M20 lie the villages of Stanford and Sellindge, set within mainly agricultural land.

Land to the east of the site is occupied by predominantly agricultural uses and wooded areas in the north, and the settlements of Newingreen and Lympne further southward. The eastern site boundary is largely abutted by the Kent Downs Area of Outstanding Natural Beauty (AONB) which extends to areas north and south of the site.

To the south of the site, land uses comprise farmland with other notable features such as Lympne Industrial Estate, Port Lympne Wildlife Park and Harringe Brooks Woods, the latter being designated as ancient woodland. The Kent AONB boundary lies approximately 300m from the southern boundary at its nearest point. The AONB is this area forms an east to west-orientated south-facing escarpment and is occupied by farm land, a number of woodlands and Lympne Castle. Further south of this lie Romney Marsh and the town of West Hythe.

Land to the west of the site is mainly in agricultural use with some interspersed woodland areas. Harringe Court is present approximately 50m from the site on Harringe Lane and comprised of residential and farm buildings. Partridge Farm is present approximately 400m west of the site and a solar farm is located directly north-west of it. To the north of the solar farm between the CTRL and the M20 is a converter station and sewage works which are approximately 500m north-west of the site boundary.

3 Development Alternatives

3.1 Alternatives to the Proposed Development

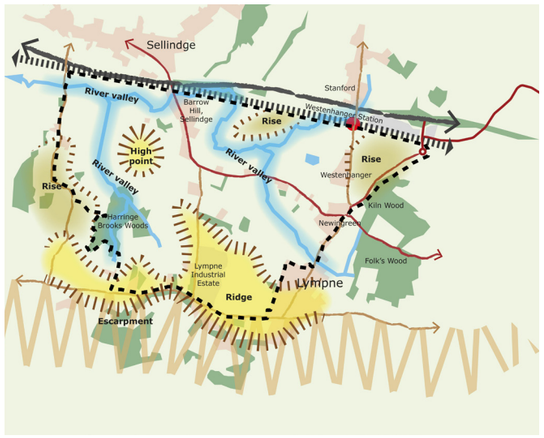
In line with the EIA Regulations, a number of alternatives were considered before the final design was chosen by the Applicant, taking into account a comparison of the environmental effects. These include:

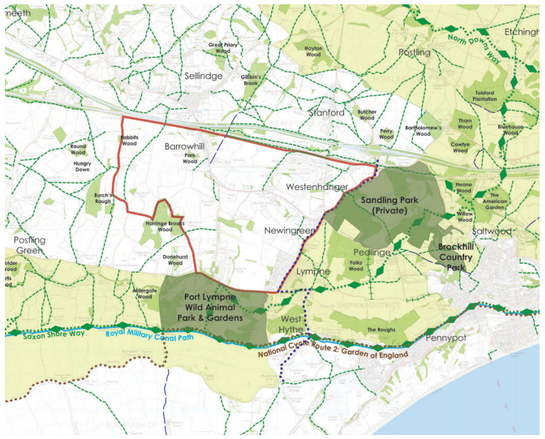
- The 'No Development' alternative;
- Alternative sites; and
- Alternative scheme designs.

The 'no development' alternative would leave the site in its current state. This would result in a shortfall of 8,500 houses as set out in the Folkestone & Hythe District Council's proposals for revising its local plan. The option of doing nothing was therefore discounted on the basis that it would not achieve the Council's objectives for development of the site.

With regards to alternative sites, Folkestone & Hythe District Council have undertaken a detailed site selection study at a strategic level and which takes into account planning policy and local environmental factors. This process determined that the site at Otterpool Park represents an appropriate location for the delivery of the required development within Kent over the Development Plan period. The consideration of alternative designs for the chosen site is explained below.

The design of the proposed development has evolved taking into consideration a number of existing site environmental site constraints and opportunities from the outset which include the following:





SITE CONSTRAINTS

Landscape Designations

- Kent Downs AONB
- Special Landscape Area

Geological Designations

- Otterpool Quarry SSSI

Ecology Designations

- Harringe Brooks Wood: Local Wildlife site and ancient woodland

Water features

- East Stour River and its tributaries

Heritage assets

- Westenhanger Castle (off-site Scheduled Monument)
- Listed buildings
- Prehistoric Barrows
- Roman Villa (discovered later in the masterplanning process and which influenced the later designs).

Existing communities:

- Westenhanger
- Lympne
- Barrow Hill, Sellindge

Kent Downs AONB

National Cycle Route
Route 2 ; Garden of England

Local Cycle Route

National Trail

Footpath

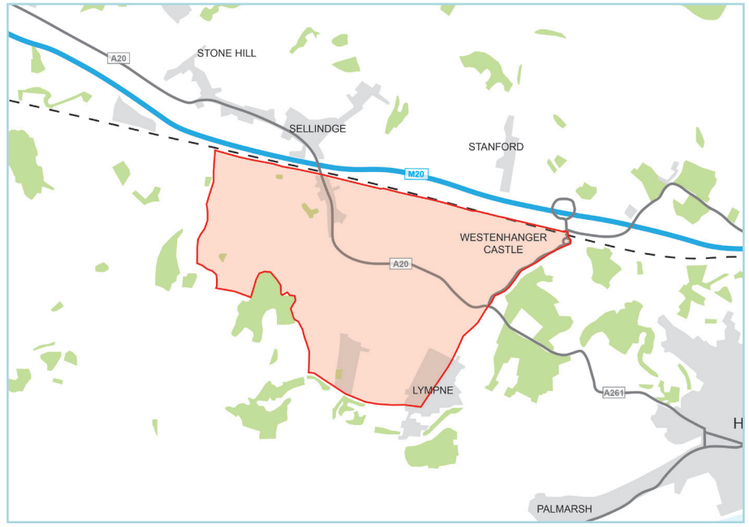
Byeway

Bridleway

Registered / Local Parks and Gardens

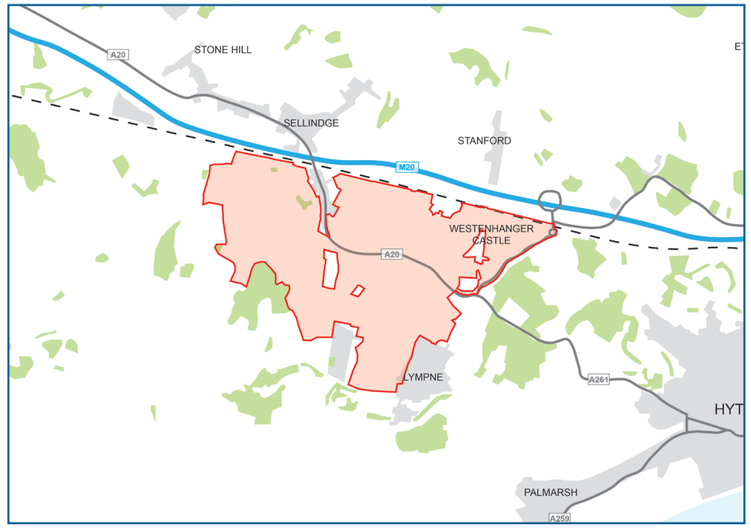
SITE BOUNDARY EVOLUTION

Baseline studies of the Otterpool Park project commenced with a Study Area that was used for the initial desktop studies, surveys and masterplanning. The site boundary was further amended to create the Otterpool Framework Masterplan Area (OFMA) of approximately 765ha which was used for capacity testing, housing quantity studies and layout options. The OFMA includes plan for up to 10,000 homes as a longer terms development area. The site boundary was then further refined and reduced to 580ha for the proposed Otterpool Park outline planning application based on 8,500 homes.



Study area

Framework masterplan



Application Site boundary

SITE OPPORTUNITIES

- A new garden settlement 'neighbour' that will providing new facilities for use by new and existing nearby residents in terms of open spaces for sport and recreation, health and education facilities.
- Providing an enhanced setting for the existing grade 1 listed Westenhanger Castle also classified as a Scheduled Monument by Historic England. The Castle is located off-site but its grounds are present partially on-site.
- Gaining understanding of a previously undiscovered roman villa which the proposed development layout has been designed to retain;
- Raising the status of other heritage features such as prehistoric barrows by allowing for their presence in the scheme design;
- The potential for reuse of intensively used farmland to increase biodiversity value and create wildlife corridors across the site;
- The potential for a more interconnected connected landscape in terms of wildlife and people given that current access routes across the site are limited.
- Taking into account the above environmental constraints and opportunities, and the policy requirement to provide up to 10,000 homes on the site, a series of masterplan options were developed for consideration which considered different options using different layouts of built development area and green spaces and their relationship with the nearby towns and villages.

All design options sought to:

- respect key views toward the site from the adjacent designated Area of Outstanding Natural Beauty which characterises the openness of the surrounding area, and
- enhance the currently limited visual setting of Westenhanger Castle, a nationally significant monument in heritage terms which lies adjacent to the northern boundary of the site.

Design layouts have also been largely influenced by the site's rich history of cultural heritage including archaeology, its ecologically valuable areas, and the known water scarcity in the south east of England.

The four main design options are shown in the following images:

DESIGN LAYOUT 1: LANDSCAPE BUFFERS

The design approach for this option was based upon the creation of landscape 'buffers' of open space between existing villages and the proposed Framework Masterplan, as specified by the yellow shaded areas adjacent to the existing communities of Barrow Hill, Sellindge, Lympne, Newingreen, and Westenhanger.

Advantages

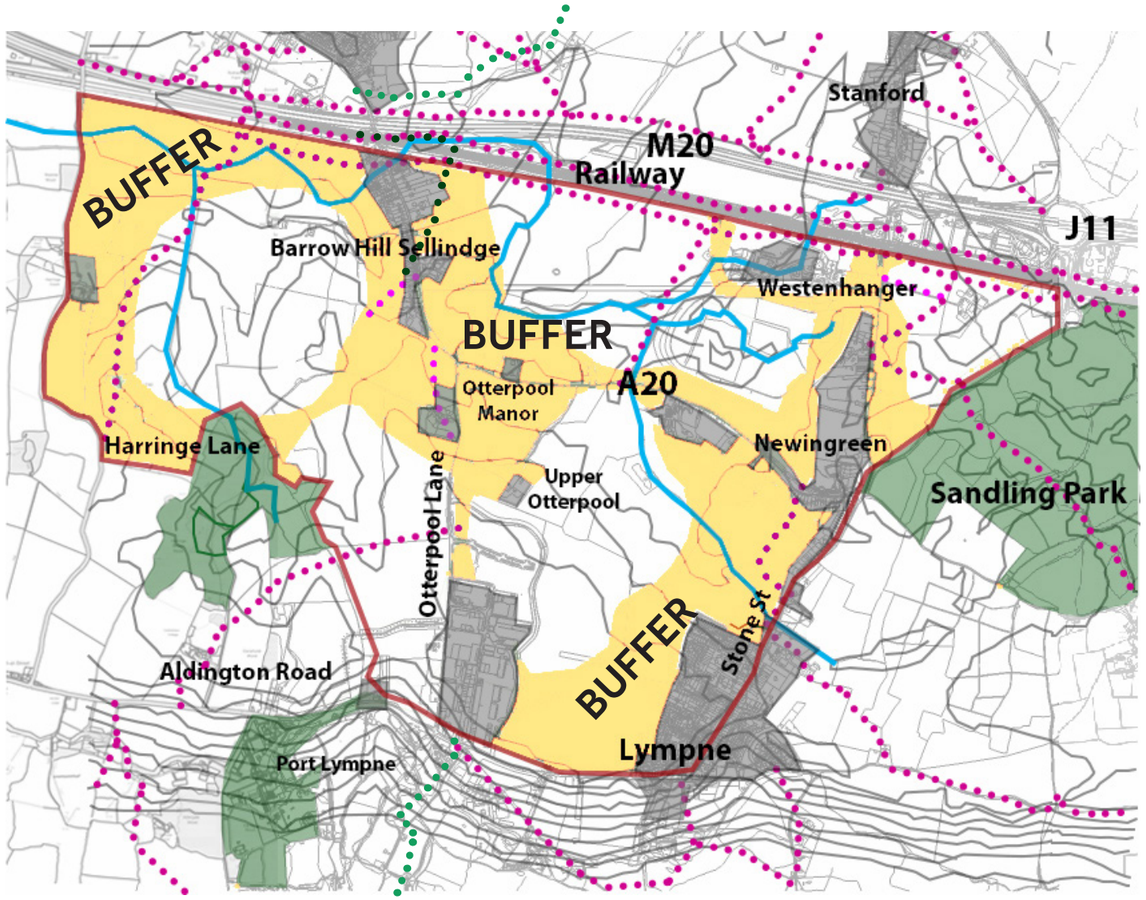
The key advantages of this design layout were considered to be:

- The layout would separate existing homes from the proposed development (the white areas in Figure of design layout 1 indicating built development).
- Some landscape in areas needed for habitat or flood mitigation.

Disadvantages

The main disadvantages of this design layout were considered to be:

- More fragmented new development sharing of services is more challenging.
- Separation increases distances travelled less walkable.
- Some landscape where not needed for habitat or flood mitigation.
- Some development in view from AONB and landscape is less effective for screening.



Design layout Option 1: Landscape buffers between existing and proposed settlement

CONCEPT DESIGN LAYOUT 2: LANDSCAPE RIDGES

This option considered the creation of green open space on topographic ridges that would act as a screen to the setting of the new settlement from the AONB to the north, with built development largely being on lower ground.

Advantages

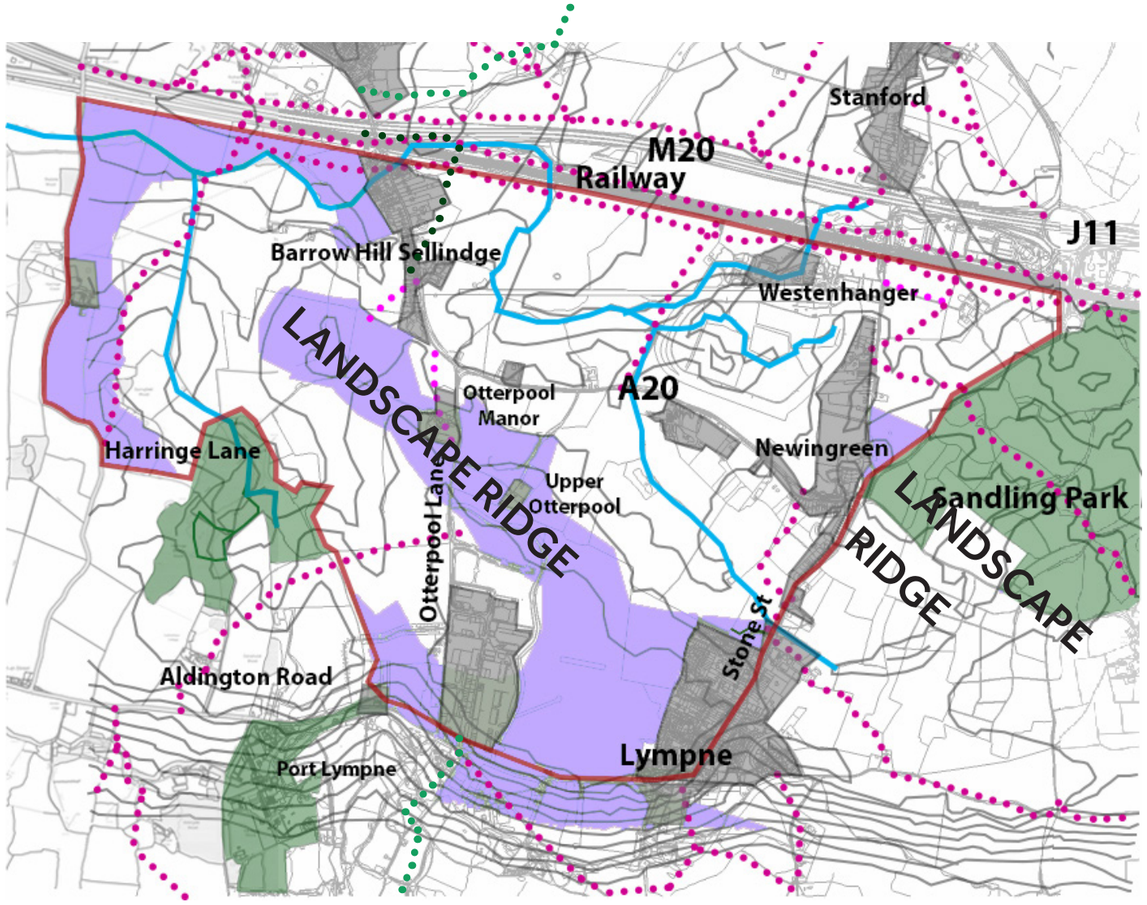
The key advantages of this design layout were considered to be:

- Screens some proposed development viewed from AONB.
- Some landscape in areas needed for habitat mitigation.
- Potential for large park in middle with enhanced woodland landscape.
- Less fragmented development.
- Potential for varied character in settlements

Disadvantages

The main disadvantages of this design layout were considered to be:

- Development areas conflicted with areas needed for flood risk mitigation.
- Fewer existing homes and settlements are separated from the proposed development.
- Little landscape or open space protection of the setting of Westenhanger Castle



Design layout Option 2: Landscape on ridges as visual integration to new settlement setting from AONB

CONCEPT DESIGN LAYOUT 3: LANDSCAPE VALLEYS

This option considered the creation of green open space in lower valley areas around the existing streams with built development on higher ground.

Advantages

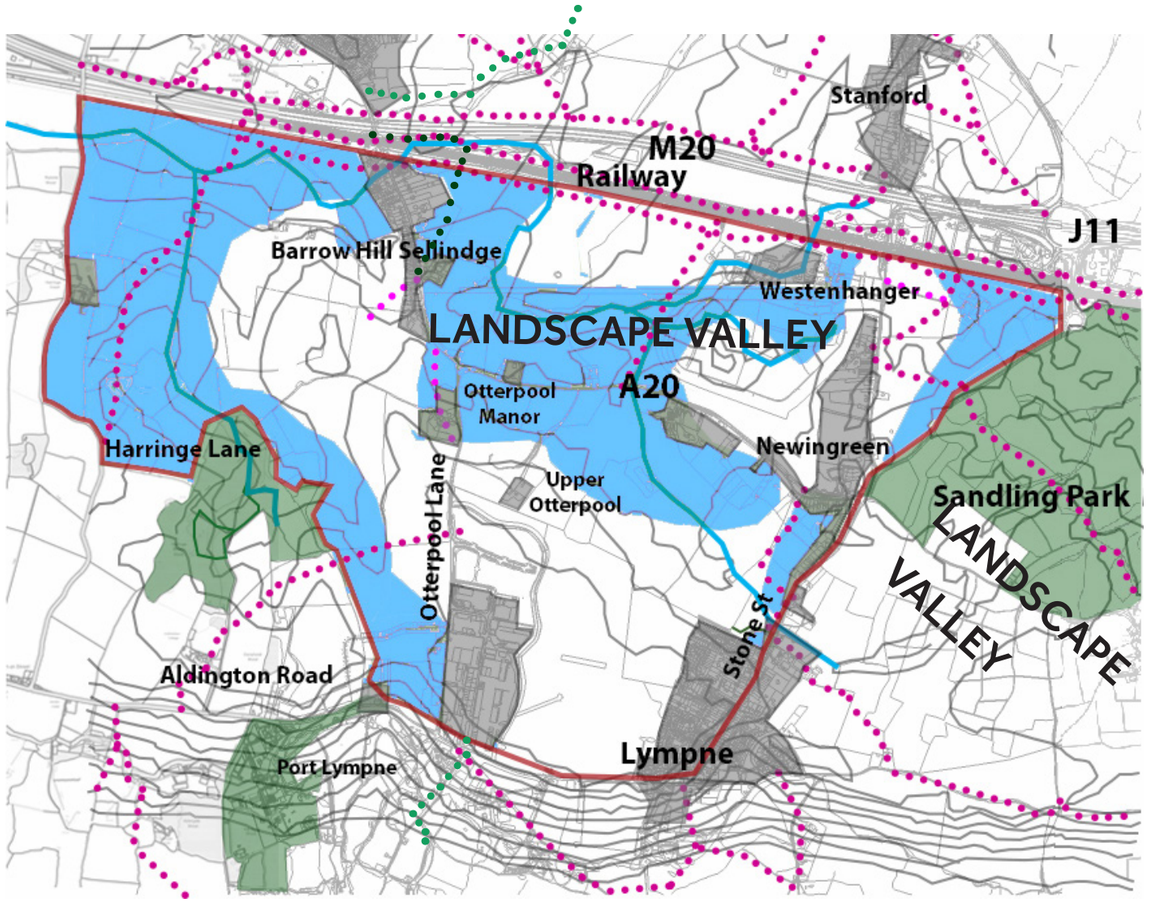
The key advantages of this design layout were considered to be:

- Landscaping can also provide natural features for necessary flood mitigation.
- Potential for a large park or open space in the centre of the development.

Disadvantages

The key disadvantages of this design layout were considered to be:

- Built development would be more visible, particularly in views from AONB with valley landscaping less effective for screening.
- More fragmented new development with sharing of services more challenging
- Separation increases travel distances discourages walkability and sustainable travel modes.
- Some landscaping may be required where it is not needed for habitat mitigation.
- Less existing homes separated from proposed development.



Design layout Option 3: Landscape Valleys in lower areas with existing streams

CONCEPT DESIGN LAYOUT 4: URBAN AND RURAL GREEN LINKS

This design option considered the creation of green links between new and existing urban and rural parks and woodlands.

Advantages

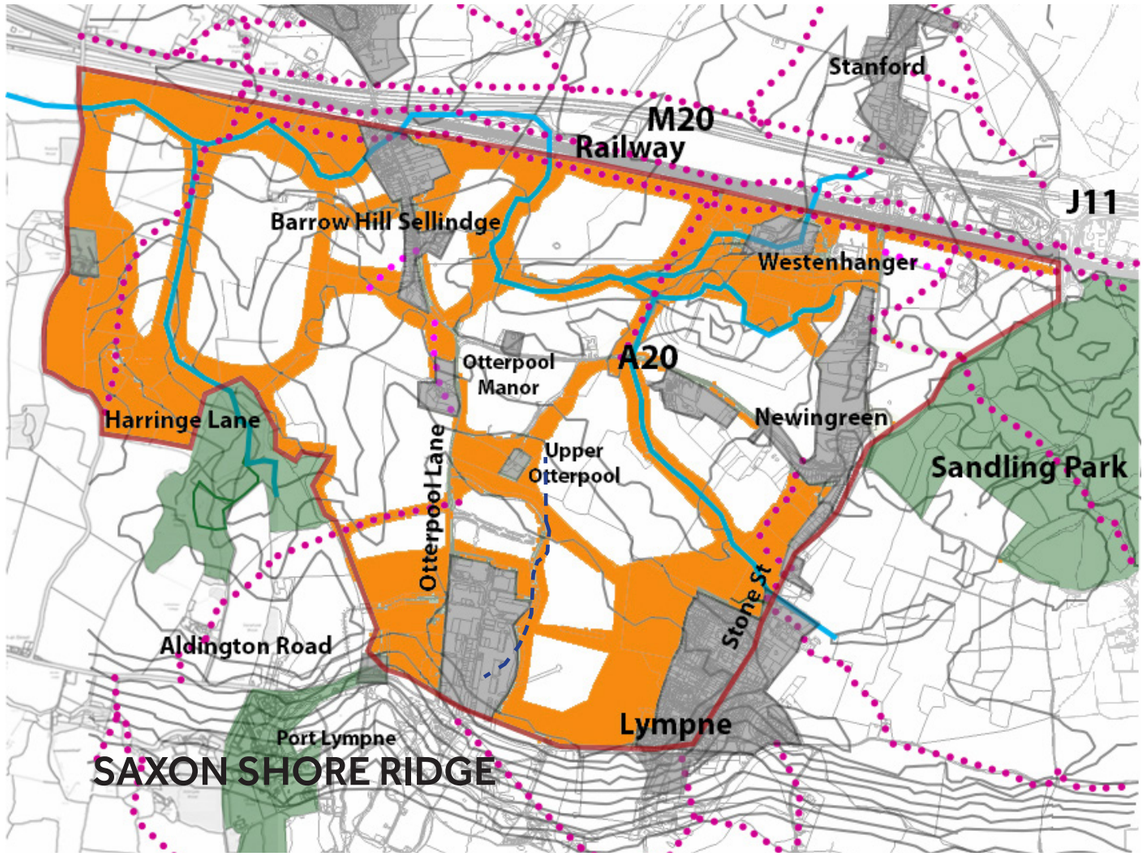
The key advantages of this design layout were considered to be the following:

- Landscaping can also function as flood and habitat mitigation.
- Improved protection of the setting of Westenhanger through more open space and landscaping in its surrounds
- Potential for open space to be provided at various levels across the site rather than specifically in natural ridges or valleys

Disadvantages

The main disadvantages of this design layout were that:

- It creates more fragmented new development with sharing of services more challenging
- Separation increases travel distances which discourages walkability within the development
- Some of the built development is in view from the AONB, with landscaping having less screening effect
- Fewer existing homes would be separated from the proposed development



Design layout Option 4: Landscape Urban and Rural Green Links

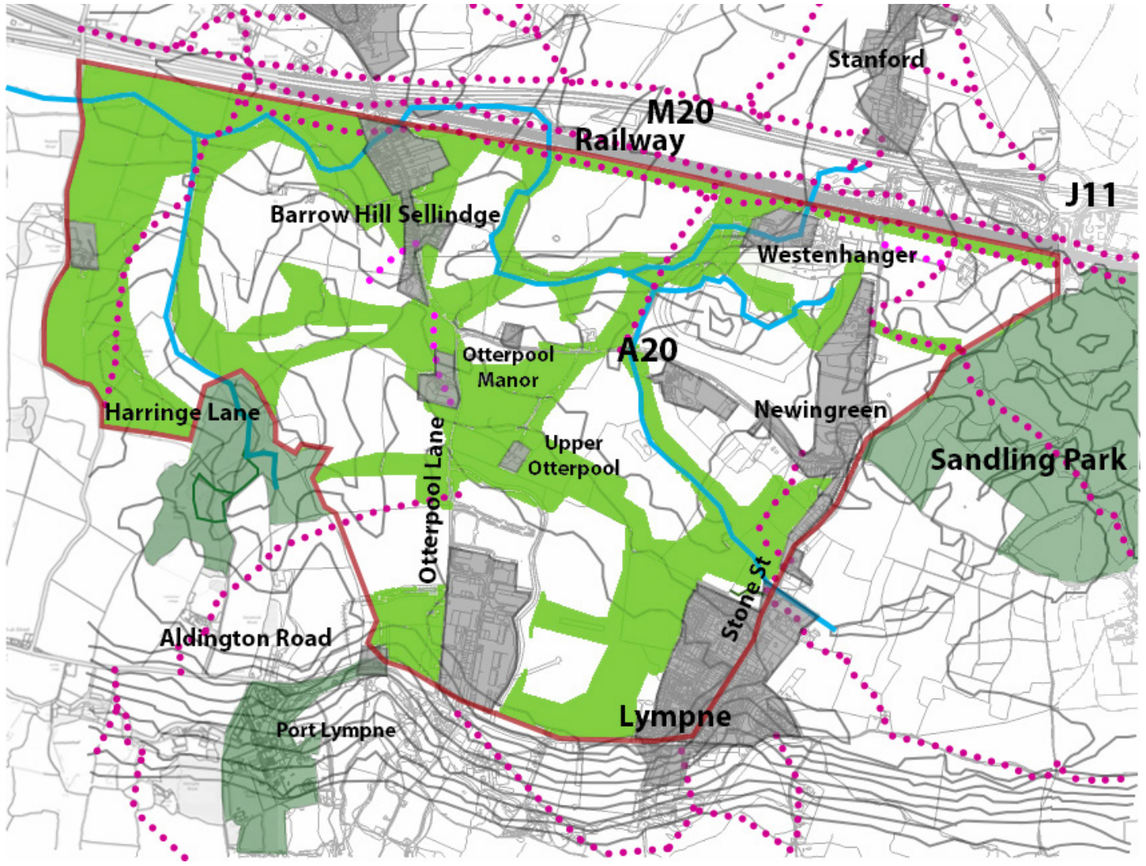
FINAL DESIGN LAYOUT 5: CONNECTIVITY AND BUFFERS INTEGRATING RIDGES AND VALLEYS

The preferred option was chosen largely on the basis of concept layouts 1 and 4 to create a landscape of connectivity providing buffers between new and existing settlements. The rationale behind concepts 2 and 3 in terms of ridges and valleys were also incorporated into the masterplan to create open spaces for parks and wooded areas that would enhance the area's distinct topography, heritage and water environment.

The overall benefits of the final choice of development compared with previous layouts were considered to be:

- Provides a connected landscape that will provide habitat mitigation
- It has the potential to create parks and open spaces in upper and lower slopes of the development site
- Landscaping in the north will provide appropriate screening of important views from the Kent Downs AONB
- Landscaping can been retained in areas required for flood risk mitigation and will have a dual use of providing blue-green infrastructure for biodiversity mitigation, and recreation.
- Appropriate open space could still be provided to respect the historic landscape setting of Westenhanger Castle.

The chosen layout design for the Otterpool Park masterplan Framework Area was then refined in site area from 765ha to 580 hecatres to enable the delivery of the proposed development of up to 8,500 homes and associated town centre uses.



Design Layout Option 5: The Final Option: Connectivity and Buffers (Otterpool Framework Masterplan for 10,000 homes)

4 The Proposed Development

4.1 The Otterpool Park Proposals

An outline planning application for the proposed development has been submitted to Folkestone & Hythe District Council. An outline planning application seeks to gain permission for specific design layout and construction 'parameters' that, following the permission, then enable the submission of more detailed design elements of the project to be developed within those parameters over the construction period. This outline planning application is therefore anticipated to allow development of the Garden Settlement through further detailed planning submission or 'reserved matters' submission over the development period of approximately 25 years. This allows a flexible approach to the detailed design and any associated future technological advances can be incorporated within the design whilst maintaining an overall appropriate scale of development represented by the outline design parameters.

The key components of the development, following the demolition of around 88 residential and commercial buildings on site, are as follows:

- a residential led mixed use development comprising up to 8,500 homes including market and affordable, age restricted homes, assisted living homes, extra care facilities, and care homes,
- sheltered housing and care villages; a range of community uses including primary and secondary schools,
- health centres and nursery facilities;
- retail and related uses;
- leisure facilities;
- business and commercial uses;
- open space and public realm;
- utility and energy facilities and infrastructure;
- waste and waste water infrastructure and management facilities
- vehicular bridge links;
- undercroft, surface and multi-storey car parking;
- sustainable urban drainage systems within the landscaping;
- creation of new vehicular and pedestrian accesses into the site;
- creation of a new vehicular, pedestrian and cycle network within the site;
- improvements to the existing highway and local road network;
- lighting;
- engineering works, and
- infrastructure and associated facilities.

The spatial distribution of the proposed land uses are shown in the image opposite.

Otterpool Park Proposed Land Uses

- Application Boundary
- Residential Areas
- Business Development
- Local Centres
- Schools
- Blue Infrastructure - SuDS
- Green Infrastructure
- Existing Water Bodies
- Burial Ground
- Formal Sports Areas (Inc. School pitches)
- Allotments and Community Orchards (Food)
- Formal Play (LEAP, NEAP, MUGA)
- Infrastructure

The image below shows an illustration of how the proposed layout of the Site that can be delivered through the outline design parameter plan drawings that were submitted for formal approval with the planning application. The proposed homes would be located within the northern and central parts of the Site. The site is currently occupied by 88 existing buildings of which four would be retained and the remainder would be demolished. The existing buildings on site are mainly used for residential and commercial purposes including farm holdings. The proposed mix of homes and other uses for Otterpool Park is shown in Table 4.

The site has been divided into series of development zones, supported by appropriate level of facilities and services. The proposed residential accommodation includes typical residential units as well as residential accommodation for older people such as age restricted homes, assisted living homes, extra care facilities, care homes, sheltered housing and care villages. The proposed housing strategy would achieve provision of approximately 22% affordable housing in line with emerging policy requirements.

The height, massing and distribution of proposed buildings within Otterpool Park has been carefully designed to ensure that the development is in keeping with the surrounding landscape and when viewed from the surrounding AONB.

TABLE 4 - OTTERPOOL PARK PROPOSED USES

Land Use	Land Use details	Homes/ Floor Area
Residential	Homes including extra care accommodation	8,500 homes
Education	Schools, nurseries, creches	37,161 m^2
Community facilities	Health centres, place of worship, community centre	20,900 m^2
Hotel	Hotel	7,701 m^2
Leisure	Sports pavilion and indoor sports hall	8,250 m^2
Mixed retail and related uses	Shops, professional services, restaurants, cafes, drinking establishments, hot food takeaways, offices, businesses	28,875 m^2
Employment	Commercial business space in hubs, commercial business park, light industrial business park.	82,418 m^2
Car parking	To be provided in accordance with Council parking standards	-
Landscaping, play, sport and recreation	Landscaping including wildlife corridors and planting for visual screening. Space for sports and recreation is also provided.	-

Illustration of the proposed development based upon the proposed land uses

Higher density development is planned in the central and north-eastern portions of the site, with lower density development proposed in the southern, western and north-western parts of the site. Building heights would range from 12m to 18m above ground.

There will be a new network of roads and streets for the development. The A20 will require realignment at the eastern end of the site in order to provide a link to the new high street and from Newingreen to the junction south of the M20. New footpaths and cycle ways are also proposed and designed to encourage residents to use these rather than vehicular routes.

1. RIVERSIDE CHARACTER
   - Visitor Community Hall
   - Local Shops / Cafes
   - Nurseries and Schools
   - Small Businesses
   - River Walks and Leisure
   - Sport Pitches
   - Riverside Habitats
   - Houses and Flats
2. HILLSIDE CHARACTER
   - Visitor Community Hall
   - Local Shops / Cafes
   - Nurseries and Schools
   - Allotments and Orchards
   - Village Greens
   - Natural Trail and Bridle Path
   - Housing
3. WOODLAND & OTTERPOOL SLOPES CHARACTER
   - Parks and Community Hall
   - Local Shops / Cafes
   - Nurseries and Schools
   - Allotments and Orchards
   - Woodland Burial Areas
   - Natural Trail and Bridle Path
   - Housing
4. LAKE SIDE & CREATIVE QUARTER
   - Parks and Gardens
   - Arts and Culture
   - Workshops
   - Multi Faith Centre
   - Lakeside Restaurants
   - Houses and Flats
5. GATEWAY & ENTERPRISE QUARTER
   - Transport Interchange
   - Bus, Rail, Park and Ride
   - Health Centre
   - Business and SMEs
   - Hotel and Conferences
   - Cafes and Restaurants
   - Shops, Leisure and Fitness
6. TOWN CENTRE & KNOWLEDGE QUARTER
   - Local Shops
   - Cafes, Food Court and Farmers Market
   - Community Hall
   - Schools
   - Local Service, GP and Dentist
   - Businesses and SMEs

4.2 Construction

Otterpool Park will be built out over a period of approximately 25 years and assessments have been undertaken assuming that the development will be complete by 2044. The Development is to be phased over 5-year intervals. Demolition works will include the removal of 86 residential and commercial buildings over the development period. Each phase will provide the necessary mix and quantum of development to ensure the delivery of housing alongside the necessary social and physical infrastructure. Works during each phase will be preceded by significant levels of advanced planting to provide visual screening of views from the surrounding AONB.

An additional 1,500 homes and other uses are expected to be delivered as part of the wider Otterpool Framework Masterplan Area which would increase the total number of homes to 10,000. Additional commercial space and a primary school in addition to the extra 1,500 homes are anticipated to be constructed approximately 4 years after the completion of the proposed development.

Conservative assumptions of construction methods have been used to determine likely construction impacts. The normal construction hours will be 08:00 –18:00 Monday to Friday, 08:00 – 13:00 Saturdays and no working on Sundays, Bank Holidays or other public holidays. In case of any special circumstances to work outside of these hours, the scope of works and duration of activities will be agreed with FHDC beforehand.

5 Agriculture and Soils

The Otterpool Park proposals have the potential to cause impacts to agricultural land and the agricultural businesses this supports. Consultation with Natural England raised a concern regarding the likely presence of high quality agricultural land and how effects would be minimised. Information on the quality of the land and the nature of the agricultural businesses was gained by collating available information on soil types and their characteristics, the quality of agricultural land (according to the Agricultural Land Classification system), topography, climate and land use, including any land being farmed under an agri-environment scheme. The soils present across the site and across adjacent areas do support high quality agricultural land. The proposals would result in the loss of this land from agricultural production. However, nearly 50% of the land would be set aside for playing fields, amenity, parks, allotments, orchards and habitats, with approximately 4% of the land also retained in agricultural production. The retention of a significant amount of green space will ensure the underlying soils continue to function, for example by absorbing water and releasing it slowly to watercourses and supporting the habitats and landscapes from which we get enjoyment.

During construction the soils would be handled following published best practice guidelines to ensure they are suitable for their intended use. The phasing of the construction programme would take into account on-going farming activities and requirements to minimise disruption, with temporary and permanent land take mitigation discussed with individual landowners. Impacts during the operational phase will be minimal. Whilst there could be increased disturbance, for example from dog walkers, to adjacent landowners, the design and layout of amenity areas and footpaths would seek to minimise this.

6 Air Quality

The proposals have the potential to cause air quality impacts as a result of construction traffic fumes and dust during the construction phase. Road-traffic exhaust emissions associated with vehicles travelling to and from the site during operation, as well as exposure of existing and future residents to elevated pollution levels have been considered. As such, an assessment has been undertaken in order to determine baseline conditions and assess potential air quality effects as a result of the proposed development. The assessment considers the construction impacts with a study area of 350m of the larger Framework Masterplan site boundary.

Potential construction phase air quality impacts from dust have been assessed as a result of earthworks and other construction activities. Good practice control measures, which would be included in a Code of Construction Practice, would provide effective mitigation for a development of this size and nature, and reduce potential impacts to acceptable (negligible) levels for the duration of the construction phase.

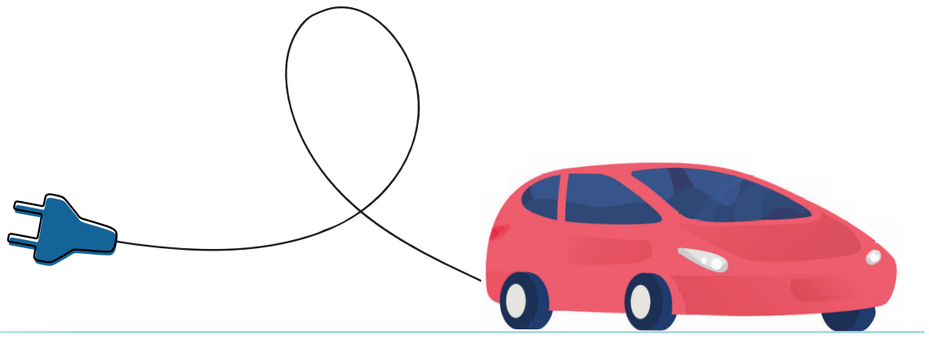
Potential operational phase impacts from vehicle exhaust emissions have been assessed by predicting air quality conditions at sensitive locations both with and without the proposed development in place. Operational phase results were verified using local air quality monitoring data in a manner with best practice guidance issued by the government. Further to this, atmospheric dispersion modelling was undertaken in order to predict pollutant concentrations across the site as a result of emissions from the highway network.

The first year assessed as part of the operational phase assessment was 2022; the year in which the first of the constructed residential units will be occupied. This assessment was carried out to ensure that residents occupying the new housing would not be subject to poor air quality. The second year assessed was 2029 which represents an interim year where the proposed development will be partially built out, and the year where the number of construction vehicles accessing the site will be highest. The third year assessed as part of the operational phase assessment focussed on 2046; which represents the year that the proposed development would be fully built out and occupied (this is inclusive of the additional 1500 residential units associated with the Framework Masterplan).

It was found that on-site air pollutant levels were well below the health-based limits (set by the government) both without and with the proposed development in place, indicating a good standard of future air quality in each assessment year. The impact of the operation of the proposed development on the existing population in the vicinity of the site was also negligible in each year assessed.

The results of the operational phase assessment therefore demonstrated that predicted pollution levels were below the relevant health-based objectives at all sensitive locations across the proposed development. The impact of the operation of the proposed development on the existing population in the vicinity of the site was negligible in all of the years assessed. Additionally no large impacts were predicted at nearby sensitive ecological sites such as the Folkestone to Etchinghill Escarpment Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC). As such, the site is considered suitable for development from an air quality perspective.

Whilst the proposed development would have negligible impact on air quality, the design includes a number of features that promote good air quality and minimise exposure to pollutants such as provision for electric vehicles, wide streetscapes that allow effective dispersion of vehicle emissions and provision of public transport.



7 Biodiversity

An assessment has been undertaken of the potential effects of the proposed development in terms of Biodiversity. This assessment has been carried out in accordance with industry guidance.

There has been a substantial level of consultation throughout the development of the masterplan for Otterpool Park and the undertaking of the assessment, since 2016. Key consultees have included Natural England, biodiversity and ecology officers at Kent County Council and Folkestone & Hythe District Council.

The key features identified in relation to the proposed development can be broken down into four broad categories:

- Designated sites, including international designated sites such as Special Protection Areas (SPA), Special Areas of Conservation (SAC), Ramsar Sites), statutory designated sites (Sites of Special Scientific Interest (SSSI), Local Nature Reserves (LNR), National Nature Reserves NNR), and non- statutory designated sites (Local Wildlife Sites (LWS).
- Habitats considered to be of principal importance to the UK, and more common and widespread habitats.
- Species, including protected species, notable species and/ or species of principal importance to the UK.
- Ecosystem services (the benefits that humans derive from ecosystems and the natural environment), including provisioning services (aspects that humans derive from nature), regulating services (aspects that are controlled by nature, such as flooding), cultural services (aspects that humans can enjoy and appreciate) and supporting services (aspects that support other services, such as soil formation).

Impacts to the features within the four broad groups were identified through a suite of desk and field-based studies. Studies included the following dedicated surveys and assessments: desk studies (including reviewing previous planning submissions and local record centre data), habitat and hedgerow surveys; arboricultural scoping survey; reptile survey, badger survey, dormouse survey, great crested newt survey, otter survey, water vole survey, bat activity transect surveys, bat building assessments and emergence surveys, bat static detector surveys, breeding bird surveys including building assessments for barn owls, wintering bird surveys, invertebrate scoping surveys, habitats regulations assessment, water framework directive and biodiversity net gain assessment.

These studies found the following key features associated with the site.

- Designated sites – key sites identified included: Folkestone to Etchinghill Escarpment SAC; Dungeness, Romney Marsh and Rye Bay SPA and Ramsar Site, Lympne Escarpment SSSI and Harringe Brooks Wood LWS.
- Habitats – Key habitats identified in relation to the site included ponds, woodland, both ancient woodland and broad-leaved woodland, riverine habitats, hedgerows and arable field margins.
- Species – Key species identified included birds, water vole, great crested newts, bats, badger, reptiles, toads, brown hare and invasive species, both plants and animals.
- Ecosystem services – key services included food production, water provision and regulation, sense of place and history, biodiversity and soils.

An example of the variation in the baseline value of the areas of the site with regards to biodiversity. The right hand image presents an intensively managed arable field, and the left hand image presents a pond within the site, with intrinsic biodiversity value and value to a range of receptors.

The left-hand image shows the East Stour River, which is retained and enhanced within wide habitat buffers within Otterpool Park. The right image is of within Harringe Brooks Wood (ancient woodland) which is adjacent to the site and is buffered to minimise disturbance and other impacts from the development.

In line with the mitigation hierarchy, initially the project design was amended to reduce impacts to key receptors identified. From the early stages of the project, the Development has been designed to ensure primarily that the most valuable habitats are retained, and impacts are avoided (in line with the mitigation hierarchy).

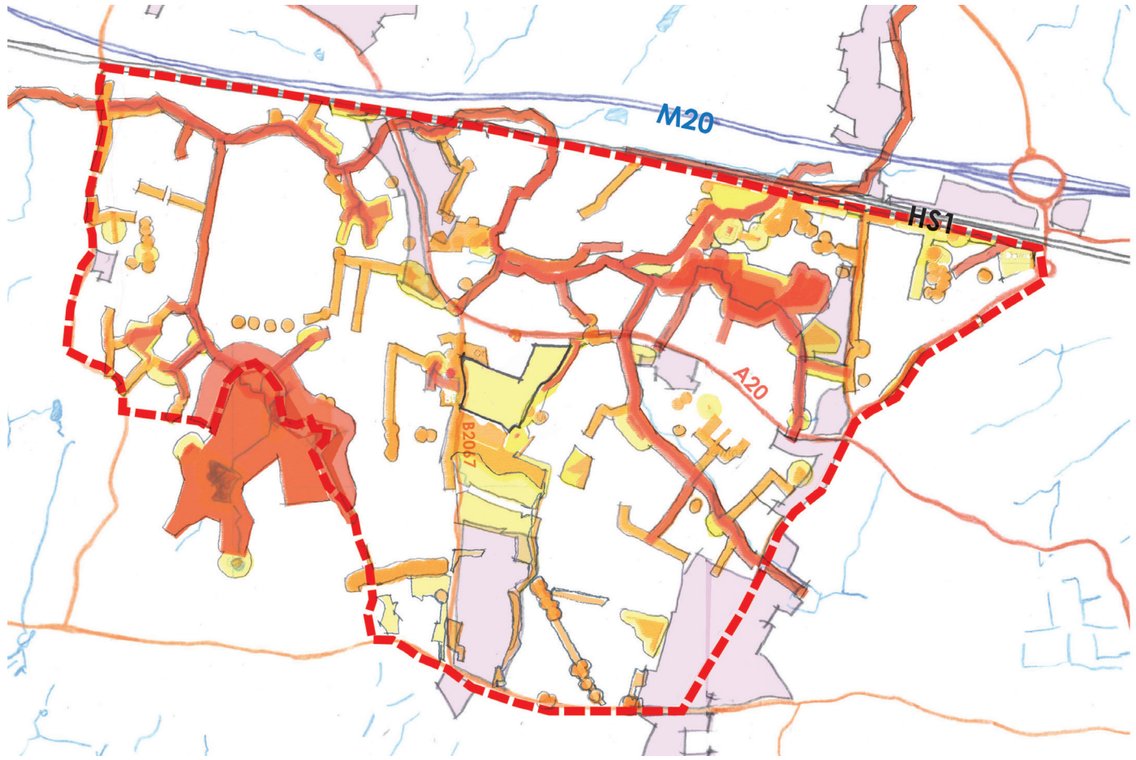
In order to inform the masterplan layout, following the initial habitat survey, habitats and areas were ranked depending on their value and their requirement for retention. The following categorisations were utilised:

- 'Grade 1': likely to contain S41 or uncommon habitat types that are likely to maintain multiple notable and/or protected species and deliver key ecosystem services and must be retained and buffered;
- 'Grade 2' contain habitats of high value and/or protected species and strongly recommended to retain and buffer;
- 'Grade 3': habitats that provide important connectivity or strategic value throughout the site or have value for notable species and are recommended to be retained;
- 'Grade 4': areas supporting less commonly found habitat across the site, retention desirable; and Other habitats: these areas have no intrinsic value for retention, however they may have value for associated notable species. This valuation was utilised to inform the masterplan and identify areas where development should not occur. Once identified, valuable retained habitats were buffered to reduce potential impacts, with buffers based upon the requirements of these habitats and the species which they support. Also, habitats were identified for enhancement to try and avoid or reduce the need for major restoration and/or offsets and compensation. Quality GI for the residents of the proposed town have been designed to reduce recreational pressures on off-site designated areas. The design also included mitigation for key receptors including buffers for habitats, new habitat creation, installation of tunnels for fauna and creation of habitat corridors.

Mitigation was then proposed for key receptors, to address remaining impacts. These include:

- Construction mitigation, including working measures to prevent disturbance and pollution impacts, species translocations and bespoke method statements
- Operational mitigation such as lighting strategies and proposals for monitoring and habitat management

A formal assessment of potential effects on internationally designated ecological designated sites in line with guidance ruled out the likelihood of significant effects occurring. A water framework directive assessment concluded that there would be no significant impact upon the two key water features within the vicinity of the site, including the East Stour River.



'Grade 1': likely to contain S41 or uncommon habitat types that are likely to maintain multiple notable and/or protected species and deliver key ecosystem services and must be retained and buffered;

'Grade 2': contain habitats of high value and/or protected species and strongly recommended to retain and buffer;

'Grade 3': habitats that provide important connectivity or strategic value throughout the site or have value for notable species and are recommended to be retained;

'Grade 4': areas supporting less commonly found habitat across the site, retention desirable;

NOTE: Other habitat areas may have no intrinsic value for retention, however they may have value for associated notable species.

In addition, a biodiversity net gain calculation, conducted according the 'Defra metric' concluded that overall, under the proposed design, there would be an approximate 20% increase in biodiversity value overall.

This change is largely due to:

- Ensuring the development avoids the most valuable areas;
- Buffering features such as the river corridor and woodlands in appropriate, high quality habitats;
- Ensuring that connectivity is retained and enhanced throughout the site;
- Creation of new areas of valuable habitat, including wetlands, ponds, areas of tree planting etc;
- Inclusion of over 50% GI within the development;
- Maximisation of the ecological value of the built development areas.

Once all of the proposed mitigation is applied, there are a few residual impacts. These are listed below:

- Off-site mitigation will be required for impacts to farmland birds, barn owls and other species which require large areas of arable land. It is recommended that this takes the form of payments for improvements in the management of farmland in the surrounding area;
- There is the potential for adverse impacts at the local / site scale to Harringe Brooks Woods resulting from illegal recreational access to this area;
- There will be an adverse impact at the local / site scale upon a range of receptors (birds, reptiles, small mammals) resulting from the influx of domestic animals.
- There will be a loss of badger foraging area which is significant at the local / site scale;
- There will likely be an impact from increased mortality on roads to hedgehogs, at the local / site scale.

However, overall, the design of the proposed development has ensured that there is a demonstrable net gain to biodiversity. Offsetting / off-site mitigation has been proposed where residual impacts remain for species or groups of conservation concern and a significant residual impact is foreseen.

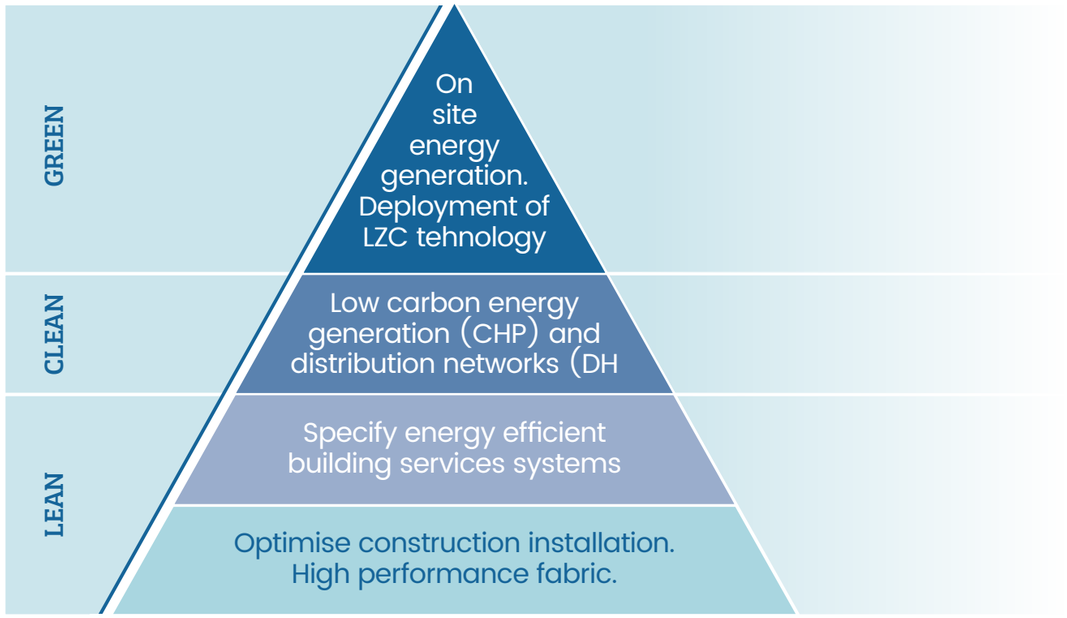
8 Climate Change

An assessment has been undertaken of the potential effects of the proposed development associated with climate change. The assessment includes consideration of both, the need to mitigate climate change through reductions in greenhouse gas (GHG) emissions, and the need for infrastructure, buildings and environments to be resilient to climate change impacts and risks. Therefore, it has been divided into two separate assessments:

- The effects on the climate from GHG emissions arising from the proposed development; and
- Vulnerability of the proposed development to climate change.

A desktop study has established existing GHG emissions and extreme climate events (and frequency) that occurs within the study area. In 2016, UK net CO2 emissions were estimated at 41% of 1990 levels. Direct emissions, resulting from use of fossil fuels (primarily gas) for heating, make up almost half of buildings' GHG emissions. The other half is electricity related from lighting, heating cooling and other appliances. Residential GHG emissions accounted for 64% of all building emissions in 2014.

The proposed development has been designed in accordance with relevant climate change policy. Mitigation measures have been embedded in the design of the proposed development to ensure it minimises the overall GHG emissions, where possible. For example, the proposed houses would be as energy efficient as possible through the use of energy efficient lighting, high levels of insulation and best practice construction techniques.



The Climate Change Act 2008 requires at least an 80% reduction in the UK's greenhouse gas emissions as compared to 1990 levels by 2050. To ensure that regular progress is made towards the target, the Climate Change Act 2008 established a system of carbon budgets. A carbon assessment undertaken has indicated that the proposed development would result in insignificant impacts to these carbon budgets. In addition, the carbon output from materials to build the scheme is estimated to be 0.21% of the annual UK emissions from construction materials. An Energy Strategy undertaken for the scheme indicates that Otterpool Park would contribute between 0.27% and 0.32% to existing south east domestic emissions and between 1.6% and 1.91% to Kent County's domestic emissions. Transport modelling has indicated that the proposed development's carbon emissions would make up minute contributions to carbon budgets. It is concluded that the construction and operational phases of the proposed development would not significantly affect the government's ability to achieve its carbon budgets.

Otterpool Park has the potential to be vulnerable to climate change effects, including an increased frequency and severity of prolonged and/or heavy precipitation events, prolonged droughts and heatwaves, a greater frequency of very hot days, and an increased risk of storms. Warmer temperatures may also mean that the risks associated with ice and snow would decrease over time.

There has been a significant human influence on the observed warming in England's annual temperature since 1950. Statistical results from extreme value analysis suggest that the UK daily maximum and minimum temperature extremes have increased by just over 1ºC since the 1950s, and that heavy seasonal and annual rainfall events have also increased. Across England, land temperature in the decade 2005 - 2014 was 1ºC warmer than 1961-1990.

There has been a small observed increase in mean annual rainfall in recent decades. Between 1961-1990 and 1991-2010 mean annual rainfall increased by 3.2%. However, this change is not statistically significant in the context of rainfall totals over the last century. The Local Climate Impact Profile (LCIP) states that Kent is already experiencing major weather events and that 52 highly significant events occurred over the 14-year LCIP period. The most frequent impacts of these events were heavy rain and resultant flood events, heatwaves, droughts, freezing temperatures and snow as well as multiple storms.

The design of the proposed development has ensured that it is not vulnerable to the impacts of climate change (e.g. changes in extreme weather patterns, flood risk).

9 Cultural Heritage

An assessment has been undertaken of the potential effects of the proposed Otterpool Park development on cultural heritage including archaeological remains, historic buildings and structures and historic landscape. The assessment has been carried out in accordance with available guidelines and best practice and is guided by The EIA regulations (2017). Potential effects include physical impacts and impacts to the settings of buildings and monuments.

The cultural heritage resource in this area of Kent is widely acknowledged for its value and contribution to knowledge of past human activity within England. The landscape surrounding and within the Otterpool Park Site has been shown to have been utilised from the Prehistoric through to the Modern period. Within the Site this is evidenced by several key assets; Westenhanger Castle and associated barns and walled garden, Medieval and Post-Medieval farmsteads, Lympne Airfield, a newly discovered Roman villa and a number of Prehistoric barrows (burial mounds). As such, the land within the Site holds the potential to reveal further archaeology.

There has been a substantial level of engagement with consultees throughout the development of the masterplan for Otterpool Park and the undertaking of the heritage assessments, since 2016. Key consultees have included Historic England, heritage advisors at Kent County Council and Folkestone & Hythe District Council, local land and property owners and the wider community. Consultation identified several areas for consideration: assets which can be scoped in or out of the assessment; the nature and scale of archaeological fieldwork and assessment reporting; the impact of the proposals on key assets such as Westenhanger Castle, and appropriate mitigation measures to offset any impacts. Most of the matters raised through consultation have been addressed through specific appraisal reports or alterations of the masterplan.

The Cultural Heritage baseline has been established through data collected from a series of desk-based reports and field-based surveys completed between 2016 and 2018.

A Cultural Heritage Desk-based Assessment was carried out in 2016. This was followed by several in-depth appraisal reports. These included an Archaeological Appraisal and Fieldwork Strategy; a Historic Buildings and Structures Appraisal; a Historic Landscape Characterisation and Farmstead Analysis; Statements of Significance for Westenhanger Castle, the Prehistoric Barrows and the Roman Villa; and a Conservation Management Plan for Westenhanger Castle. A geoarchaeological assessment of the site was also carried out.

Field-based investigations took the form of geophysical surveys, watching brief on ground Investigations, trial trenching evaluations and walkover surveys.

Hypocaust (underground heating system) of the Roman villa

Geological fissures within the Hythe Beds in Field 10

Roman column base

Collating all of the above data from field-based surveys and appraisal reports, in total, 386 heritage assets have been considered - 6 Scheduled Monuments, 41 Listed Buildings, 2 Conservation Areas, 2 Registered Parks and Gardens, 6 military crash sites and 329 other heritage assets. Other assets such as historic hedgerows, woodland and landscapes have also been assessed. This baseline primarily consists of assets within the site but also considered assets located outside of the site but with the potential to be impacted by the proposed development. For the Environmental Statement 238 of these 386 heritage assets were assessed. This detailed assessment of heritage assets has helped to develop a fully informed understanding of the Otterpool Park site, its heritage value and archaeological potential.

Using the data collected in the field and desk-based sources, an assessment was undertaken of the potential effects of the proposed development on cultural heritage assets during its construction and operation. Mitigation measures have been embedded into the design of the proposed development to ensure it minimises the impacts on cultural heritage wherever possible.

Impacts during construction would be permanent for most heritage assets which lie within the site boundary where construction involves physical impact. For example, extensive groundworks required for new building foundations will require the removal of any below ground archaeological remains present. Mitigation, usually in the form of archaeological excavation, will be implemented to investigate the remains further and reduce the overall impact on the cultural heritage resource.

Construction will also have a physical impact on several historic buildings. Physical impacts to built heritage receptors which would be demolished or changed as part of the Development would be mitigated through historic building recording.

Impacts during construction would be temporary for those heritage assets whose setting would be affected by construction. For example, construction traffic, increased noise and dust would impact on the setting of historic buildings. Mitigation, in the form of fencing, hoarding and bunding, damping down of the construction area and traffic management planning, will be implemented to reduce these impacts.

For many assets, permanent impacts from the construction phase would continue into the operational phase (as they are permanent). For example, several listed buildings will experience changes to their setting as a result of the visual changes to the surrounding landscape. Mitigation in the form of vegetation screening and green spaces buffers have been incorporated into the design to minimize these impacts. These control measures will be included in a Code of Construction Practice.

Overall, most residual effects to heritage assets are non-significant. However, the following heritage assets would experience significant adverse residual effects due to change to their settings:

- Upper Otterpool, a former farm which is a Grade II listed building;
- A non-designated but potentially nationally significant prehistoric barrow located east of Barrow Hill, Sellindge and north of the racetrack straight, and marked on OS maps

The justification for these significant adverse environmental effects is as follows:

- Upper Otterpool and its barns will not be physically impacted however its setting will experience permanent change arising from the removal of its immediate historical agricultural context. There is however a generous amount of public open space planned around Upper Otterpool and the views between this asset and Otterpool Manor will be preserved; and
- The barrow to the east of Barrow Hill, Sellindge will not be physically impacted by the development as it will be preserved under open space. However the open space will only be large enough to preserve the barrow itself and not its setting or views. It will however benefit from being taken out of a harmful ploughing regime which has all but flattened it. The adverse effect to the setting of this one barrow has been balanced against the public benefit that the development will bring to the group of barrows west of Barrow Hill, Sellindge which will be preserved beneath public open space and interpreted for the public.

The development will also result in some benefits for certain heritage assets for example preservation within open space for the Roman villa, the Airfield's Battle Headquarters and the prehistoric barrows. As well as preserving these assets from neglect or the damaging effects of ploughing the development will also increase public access to and understanding of them. Certain elements of the former designed landscape of Westenhanger Castle will be enhanced by the proposed development such as the recreation of a parkland-type public open space to the south of the Castle and a recognition of its Tudor garden and former access. The development will also afford the opportunity for a Heritage Trail to be created which will provide a pedestrian/cycle link key heritage assets.

LiDAR data of the Site and surrounding area showing the mounds of the barrows which give rise to the name 'Barrow Hill'

10 Geology, Hydrogeology and Land Quality

The geology across the development varies with superficial deposits including Alluvium and Head deposits. The solid geology includes formations from the Lower Greensand Group and the Wealden Group. A preliminary intrusive ground investigation undertaken across the site found the geology to be generally consistent with the anticipated mapped geology.

In the centre of the proposed development there is a Geological Site of Special Scientific Interest (SSSI) known as Otterpool Quarry. The former quarry face shows a section through the Cretaceous Hythe Beds in East Kent and is of particular significance in showing the contact between this formation and the Sandgate Beds above. The Hythe Beds are especially fossiliferous at this locality.

The site is located in a designated safeguarding area for minerals.

A detailed Unexploded Ordnance (UXO) desk study has been undertaken for the Site. This indicated a high risk on the southern part of the site (location of former World War II airfield) reducing to medium and low moving northwards.

The aquifer designation across the Site varies depending on the different geology present. The aquifer status ranges from Unproductive strata (Head Deposits), to Principal aquifer (Folkestone Formation and Hythe Formation). Groundwater in the superficial deposits is anticipated to be associated with the Alluvium local to the streams and rivers in the northern portion of the proposed development. Whilst groundwater flow in the Hythe Formation is usually through joints and fractures in the weathered limestone layers, with some limited matrix flow though the sand layer, depending on the proportion of silt and clay.

Groundwater percolating downwards is retarded by the lower permeability of the underlying Atherfield Clay and is expected to flow northwards, to emerge at springs feeding the East Stour River. In wetter periods, near to the Hythe escarpment in the south, there is a southwards flow component emerging at or below the contact between the Hythe and Atherfield Clay formation sometimes to form springs in the area. The groundwater divide is estimated to be approximately north of the Aldington Road.

A historical review of the site reveals that generally little in the way of intensive development has occurred across the proposed development area with much of the site remaining rural in nature. Exceptions to this are the Folkestone Racecourse present in the north east of the site, activities associated with Otterpool Quarry, and the southern portion of the site which was the location of the former military World War II airfield, and later, Lympne Airport. There is a landfill site present to the north of the industrial park which accepted inert waste. These activities have the potential to cause some contamination to underlying soils.

A number of intrusive ground investigations and associated assessments have been prepared for the site to determine the land quality status and identify unacceptable risks to receptors.

Mitigation and enhancement measures have been proposed for the development during the construction and operation phase to minimise risks to the environment and human health of future residents and visitors to the development.

Otterpool Quarry SSSI in its existing overgrown state

'Rag and Hassock' Beds of the Hythe Formation

Prior to construction, further intrusive investigations would need to be undertaken for detailed design which will increase the understanding of ground conditions and potentially identify more discrete areas of contamination. If unacceptable risks are identified, remediation would be undertaken prior to earthworks taking place. A watching brief protocol and other pollution prevention practices would be adopted as detailed in a Code of Construction Practice. Appropriate design of structures and foundations would be undertaken to accommodate ground conditions encountered. Further UXO assessment would be required prior to excavation works in high / medium risk areas.

The geological SSSI (Otterpool Quarry) is located within a woodland Country Park. The former quarry face will be maintained and potentially enhanced to expose additional areas of the Hythe Formation geology for educational purposes.

Overall, once the appropriate mitigation measures such as remediation works to remove any contamination hotspots have been complete prior to construction, the residual effects will be beneficial. The proposals for the enhancement of the geological SSSI will also be beneficial.

11 Human Health

The Human Health assessment reports the impact of construction and operation of the proposed development with respect to human health, providing a summary of the Health Impact Assessment (HIA) prepared in support of the outline planning application. Guidance that has been used to inform the human health assessment includes the NHS London Healthy Urban Development Unit (HUDU) Planning for Health: Rapid Health Impact Assessment Tool (third edition April 2017) which identifies determinants of health likely to be influenced by a specific proposal.

The assessment considers the health impacts of the development at local, district and regional levels. Different impacts are likely to be experienced during different stages of the development and as such, three different stages have been identified for consideration of specific health impacts, namely during construction, early occupation (impacts of the proposed development on residents of existing settlements and properties as well as early occupants of Otterpool Park) and full build-out. The assessment considers change (whether there would be a beneficial or adverse health impact), duration (whether the change would be temporary or permanent) and intensity / exposure (the severity of the change and scale of population likely to be exposed).

A range of data sources have been used to establish a community profile, covering demographic and socio-economic characteristics.
The identification of population and human health issues must pay specific attention to vulnerable groups. These include children, older people, people with disabilities and people from low income groups. Environmental baseline information has been derived from other reports and documents prepared in support of the OPA for Otterpool Park. These have included the Design and Access Statement, the Energy and Housing Strategies, the Sustainability Statement, the Transport Assessment and the Community Infrastructure and Facilities Strategy.

Effects on human health and wellbeing have been established for each of the three phases of construction, early occupation and operation in line with the topics suggested by HUDU guidance, namely:

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

Mitigation measures have been identified where relevant in relation to negative effects that have been identified.

12 Landscape and Visual Impact

A landscape and visual impact assessment has been undertaken in accordance with relevant guidelines and best practice approaches. The purpose of the assessment is to consider the potential effects of the proposed development on the landscape character and visual amenity of the site and the wider area.

In preparation for this, visual surveys have been carried out since 2016 throughout different seasons of the year to gain a broad as understanding of landscape of the Site and its surrounds as possible. The assessment included a 10km study area spanning from the escarpment of the North Downs across the Vale of Holmesdale to the Greensand Ridge and Romney Marsh. Within this area the extent of likely views of the proposed development was established, and key locations and routes were visited and walked. To further understand the key sensitivities and characteristics of the existing landscape, officers at FHDC and Ashford Borough Council were consulted as well as officers from the Kent Downs AONB and Natural England.

A site-specific assessment of landscape character was prepared to supplement the existing broader landscape character assessments of published by FHDC, Ashford Borough Council and Kent County Council. The site exhibits of wide variety of landscape types from residential and industrial built-up areas to agricultural land and areas of informal recreation. These give rise to a range of different visual and perceptual qualities and sensitivities that the proposed development has taken account of throughout the masterplan design.

The most sensitive receptors were identified as including:

- the character of the landscape within and surrounding the site;
- the special characteristics and qualities of Kent Downs AONB, which borders the site along parts of its eastern and southern edges; and
- the North Downs Special Landscape Area, which also occupies part of the site.

It also included the visual amenity of:

- residents of the settlements and individual properties surrounding the Site;
- users of the North Downs Way, National Trail and Saxon Shore Way, Long Distance Path:
- users of public rights of way within and surrounding the Site;
- users of places of recreation such as Open Access Land, Country Parks, and visitor destinations surrounding the Site; and
- users of local roads.

A landscape-led approach was used to prepare the scheme masterplan. Its formulation drew upon the findings of the site-specific and published landscape character assessments in order to suitably integrate the new settlement into its setting. As a result, the scheme incorporates measures to avoid where possible and reduce potential impacts upon sensitive landscape character and visual receptors.

During the construction phase, mitigation measures include for example providing adequate separation distances, and using the 'advance planting' of structural native vegetation and hoardings, to create visual buffers between sensitive receptors (such as existing residential areas and footpaths/bridleways) and construction compounds, areas of material storage and intense activity. It would also include measures to control the placement, extent and duration of construction site lighting, using horizontal cut-off optics and zero floodlight tilt angles to prevent light spill and avoiding the location and direction of lighting near to and towards existing residential properties where possible.

After taking into account the mitigation measures described above there would be some harmful residual impacts arising from the construction stage upon landscape and visual receptors, in particular upon some residential properties and users of some public rights of way. These, however, would be temporary in nature or would diminish in magnitude as certain parts of the overall scheme are completed, and the permanent landscape proposals associated with these (such as new areas of tree planting) are implemented and establish.

Once all parts of the Development are complete it would bring about a fundamental change to the character of the site. Whilst a new character of streets, buildings and open spaces would predominate, it would be set within an enhanced landscape framework of woodland, tree belts and, hedgerows and shaws. This would both help to restore the original character of the landscape within the Vale of Holmesdale and also help ameliorate views of the existing detracting elements such as the Lympne Industrial Estate, the M20 (and the visual paraphernalia around junction 11, such as the service station and roundabouts), and the Ashford-Folkestone railway.

The vegetative landscape framework created would envelop the site's existing network of public rights of way and link these, and newly created traffic-free routes, to a series of new public open spaces. These have been designed to provide better physical and visual access to some of the existing assets in the landscape including Westenhanger Castle, the Otterpool Quarry SSSI and the East Stour River corridor and link people and habitat to the wider green infrastructure network. In total the 'green infrastructure' within the scheme would amount to at least approximately 40% of the overall site.

This proposed substantial proportion new open space, along with the planned structural vegetation (much of which would be planted in advance of construction of buildings and infrastructure) around the edges and throughout the scheme would help integrate it within views from sensitive areas outside of the site.

Views toward the scheme from the south (including from the Saxon Shore Way, Long Distance Path and Romney Marsh), would be substantially hindered by such new planting, in addition to the landform and current wooded nature of the Hythe escarpment. Views from the east would be curtailed by the planting of a proposed substantial 20m wide structural tree belt to the east of the re-aligned A20, as well as by existing buildings of Lympne and Newingreen, and by off-site vegetation. Impact on views from the west would be restrained by the planting of a 30m to 60m wide belt of native trees, as well as by the gently undulating dip-slope landform of the Greensand Ridge, and blocks of existing woodland.

Similar proposed planting would occur along the northern edges of the Scheme to help integrate it into views from areas of settlement, public rights of way (including from the North Downs Way, National Trail), Open Access Land and local roads to the north of the Site. In many of these the Scheme would form a minor horizontal and vertical proportion of the broad panoramas that are experienced from these views – especially from the escarpment of the North Downs. In addition, land form, existing vegetation and the numerous settlements that populate this area restrict the extent of views further. For this reason, users upon only just under a quarter of the route of the North Downs Way, National Trail through the study area would have views to the site. Beyond 5km for the site within this it has been identified that the detail of the scheme would become less pronounced and more suitably assimilated into is landscape setting.

In the residual views to the Site the Scheme has been designed to display clear visual legibility as a town. The tallest buildings and greatest density of development would occur in a visibly definable town centre, purposefully positioned near to the railway station, motorway junction and Westenhanger Castle. Surrounding this would be visually distinguishable local centres set within neighbourhoods of distinct townscape and landscape character. The nature of these have been informed by the Site-specific landscape character assessment prepared for the project, and would reflect the landform, elevation, pattern and location of their environment in their layout, materiality and form. Development, for example on the upper slopes of the Greensand Ridge would be lower, less dense and more interspersed with wooded clumps and copses. At Barrow Hill new streets would follow the contours of the pronounced landform, leaving a village green to develop at the crest of the hill. Finally, upon the site of the old Lympne Airfield development blocks would be set either side of the line of the old runway, so ensuring recognition of a valued past land-use.

A number of other design principles have been incorporated into the proposed Scheme to minimise its impact upon landscape character and visual amenity. These include the:

- minimisation of changes to landform;
- retention of the majority of existing trees and hedgerows except in cases where new road or other infrastructure crossings are required;
- creation of buffer strips of open space and vegetation around existing settlements to protect their individual identity;
- adherence to the Institution of Lighting Professionals' - Guidance Notes for the Reduction of Obtrusive Light, with regards to light spill, glare and sky glow;
- development densities to match those of equivalent towns such as Hythe and Tenterden;
- retention of key views to the North Downs escarpment from within the Scheme; and protection of the wooded skyline formed by the Greensand Ridge;
- use of local materials such as Kentish Ragstone (as used in parts of Lympne, Aldington and Westenhanger), brick (as used in local farmsteads of Hillhurst, Otterpool Manor, and in the Victorian railway terraces of Barrow Hill and Sellindge) clay and slate tiles, render, and timber cladding, supplement this with contemporary materials;
- establishment of a suitable colour palette for walls and roofs;
- use of vegetated green roofs and walls, as well as solar panelling. and
- establishment of a Community Facilities Delivery Statement to set out the strategy for the long-term management and governance of all infrastructure of community benefit, including the strategic public open space and green infrastructure.

Taking into account these embedded design and mitigation measures, and given time for them to establish and mature, the residual harm to landscape and visual receptors outside of the Site would be limited to moderate/minor, and not significant.

An assessment of the cumulative effects of other planned development within the study area (including those contained within the Otterpool Framework Masterplan Area) with the proposed development has been undertaken for the construction and operational phases. It is considered that there would not be any significant cumulative landscape and visual effects during the construction phase as other schemes are predominantly located a considerable distance away. Likewise, in respect of the operational phase, cumulative effects of other schemes were considered within the future assessment scenarios and it was concluded overall that there were no significant effects as a result of the proposed changes.

The findings of the LVIA identify that whilst there would be some adverse impacts on some of the characteristics of, and views from areas contained within the Kent Downs AONB that these would not bring about significant effects. As such the Development would not have significant adverse effects upon the designation's special characteristics and qualities.

In addition, the scheme conserves key attributes of this part of the AONB such as: the outlook from the North Downs escarpment as one containing open countryside towns and the sea; the views back to the escarpment from within and through the Site; and the skyline of the wooded greensand ridge in views from the escarpment, with views to Romney Marsh, Hythe Bay and the High Weald beyond.

The scheme would also enhance key elements such as: reinforcing the boundaries of the AONB with native woodland planting where the Site adjoins it; improving the visual assimilation of the existing roundabout to the south of Junction 11 of the M20 into the surrounding AONB landscape which lies immediately to its east; and ameliorating the current discordant views to the Lympne Industrial Estate in views from the North Downs escarpment and its foot-slopes.

As such the 'natural beauty' of the Kent Downs AONB would not be significantly affected by the proposed Development.

The scheme would bring about the loss of a very small part (some 8% of the North Downs SLA outside of the AONB) of the overall Special Landscape Area designation within the Folkestone & Hythe District. On the basis that this designation is, in part, protecting the adjacent AONB, the scheme proposes the realignment of the A20 away from this boundary and its replacement with a substantial 20m wide native tree belt. This would both visually protect this part of the AONB and provide a robust defensible edge between it and the proposed Development.

In addition, the distinctive red brick buildings of Hillhurst Farm and the attractive triple Victorian terrace of Little Greys that lie within the parcel of Special Landscape Area land would be retained and the further stages of the Scheme's planning would ensure that they are sensitively incorporated into the detailed layout of this area. The proposed green infrastructure strategy ensures that the new buildings are set back from the Site's boundary with the existing dwellings of Westenhanger along Stone Street and from the very southern edge of the area to protect views from outside the Site towards the North Downs escarpment, and the route of the existing public rights of way are infolded within wide tree belts. The landscape character, and the visual amenity of users of the remaining areas of the Special Landscape Area designation outside of the Site would not experience significant effects arising from the Development.

Green Infrastructure Strategy

Application Boundary

Existing Green Infrastructure

- Development Areas
- Retained Vegetation
- SSSI (Geological)
- East Stour River
- Water Body
- Existing PROW
- Cultural Heritage Features
- Existing Woodland Outside Red Line Boundary

Proposed Green Infrastructure

- Key Open Space
- Community Orchards
- Biodiversity Priority Area
- Woodland Habitats
- Food Production/Allotments
- Formal Sports facilities
- Formal Play Areas
- Proposed Schools
- Cycle Way
- Proposed 'Greenways'
- Woodland Burial
- Transport corridors
- Railway (HS1)

13 Noise and Vibration

An assessment has been undertaken of the potential noise and ground borne vibration impacts that may occur during both the construction and operational phase of the proposed development. Potential noise impacts as a consequence of changes in traffic volumes and vehicle types resulting from the proposed development have also been considered. In addition, the assessment has determined whether the noise levels at the proposed development site are appropriate for residential end use and other noise sensitive buildings such as schools, medical centres, community facilities, hotel and conference provision.

The likely significant effects of the proposed development have been considered in accordance with relevant UK legislation, current National and Local Policy and technical guidance with regard to noise and vibration.

Existing noise and ground borne vibration levels within the application site have been measured at selected locations. The survey methodology was agreed with the local Environmental Health Officer (EHO) prior to commencement of the surveys.

Currently the noise climate in the area is dominated by traffic noise from the surrounding roads, most notably from the A20 which bisects the site. In the northern half of the site there is also a significant contribution from the M20 motorway. The existing noise climate is also influenced by noise from passing trains travelling on the high-speed line located adjacent to the northern border of the site. These trains comprise of high-speed international and regional services, along with slower local and freight trains. There were also noticeable noise emissions from commercial activities and HGVs in close proximity to Lympne Business Park.

To ensure that construction noise and vibration is suitably controlled, it is proposed that a Construction Environmental Management Plan (CEMP) is prepared by the Main Contractor setting out demolition and construction methodologies for approval by Folkestone and Hythe District Council with noise and ground borne vibration limits set, within which the site will operate. Any specific construction tasks anticipated to create higher noise or vibration levels that may exceed the agreed working limits will be identified and a Section 61 Application prepared for approval by Folkestone and Hythe District Council. The application would include details of the duration of the construction task and set-out measures to minimise noise and vibration.

The potential noise impact associated with predicted changes in road traffic flows during the operational phase of the proposed development have been assessed. It is considered that there would not be any Significant effects upon any existing or proposed noise sensitive receptors.

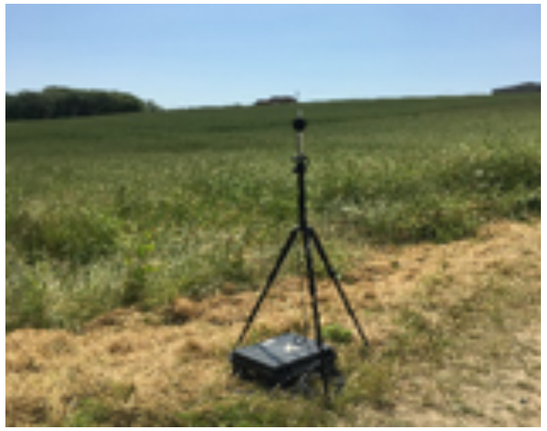
Potential adverse noise effects upon the existing residential dwellings were noted in the vicinity of the proposed realigned section of the A20 close to the junction with Stone Street. It was concluded that there would not be Significant effects upon these dwellings as a result of the realigned road.

An assessment of the cumulative effects of other planned development coinciding with the proposed development has been undertaken for the construction and operational phases. It is considered that there would not be any Significant cumulative noise and vibration effects during the construction phase as other schemes in the area are located a considerable distance away. In respect of the operational phase, cumulative effects of other schemes were included within the traffic flows assessed for the future assessment years considered and it was concluded overall that there were no Significant effects as a result in changes in traffic levels in the local area close to the site.

The assessment concluded that in relation to existing noise levels, the site is suitable for residential development including hotel and conference facilities. It was identified that careful consideration of the design of residential dwellings would be required for those built close to the Lympne Business Park and may require commonly adopted noise mitigation measures incorporated into their design. It was also concluded that schools, medical centres and community facilities can achieve the high acoustic standards required by current standards and guidelines by careful detailed design and the adoption of appropriate design mitigation measures.

Measurements of ground borne vibration completed close to the northern border of the site indicated that the potential for adverse effects caused by passing trains on the high-speed line were concluded not to be Significant.

New commercial/industry proposed to be located in the vicinity of the northern boundary has been considered with regards to their potential impact upon the proposed new residential dwellings in this area. Noise from commercial/industrial sources can vary considerably depending on the end user. Details are provided on how these facilities can be assessed at the detailed design stage with appropriate planning conditions and how the location, design and mitigation measures can be adopted to minimise potential adverse impacts from these sources.



14 Socio-economic Effects and Community

An assessment has been undertaken of the potential socio-economic and community effects of the proposed development during both the construction and operational phases. The assessment addresses themes associated with a local population increase from the additional housing, and subsequent effects on the economy and employment, community services and facilities, open space, tourism and recreation. The assessment has been carried out in accordance with available guidelines and best practice approaches.

Local policy focuses on the creation of a new settlement which will deliver new homes, including affordable housing, in addition to employment areas, open space and community infrastructure.. The proposed development would deliver a total of 8,500 new homes in a range of types and tenures. 22% of the new homes are proposed to be affordable housing.

Effects of the proposed development during the construction phase relate to the creation of construction employment and associated increased demand in the supply chain. However short-term effects on local residential amenity as a result of construction activities may cause some disruption that will affect the local community to some degree.

Once completed, the proposed development would contribute towards Folkestone & Hythe District Council's housing target, providing benefits in terms of the variety and type of housing proposed. The proposed development would generate a new population in the region of 24,000 people. This new population would increase demand for community infrastructure in the local area, for example schools, GP surgeries and community services, in addition to demand for open space and play space provision. Supporting facilities including employment and community and green infrastructure are provided as part of the proposed development. For this reason there is not considered to be an adverse effect in terms of effects on healthcare, education or other community infrastructure. Effects on the local economy are considered to be beneficial through the creation of a range of new employment space.

15 Surface Water Resources and Flood Risk

An assessment has been undertaken of the potential effects of the proposed development on surface water resources and flood risk. Of particular relevance are consideration of the supply of clean water and the management of waste water generated by the Development, the safeguarding of water quality and effects on the land drainage regime to ensure no detriment to flood risk.

The assessment has been informed by a desk study, site walkover survey and site investigations to understand the infiltration properties of the land. Consultation with relevant bodies, notably the Environment Agency (EA), Kent County Council and Southern Water have also shaped and informed the application, which is supported by a Flood Risk Assessment, Surface Water Drainage Strategy and outline Water Cycle Study (WSC).

The site is drained by a network of ordinary watercourses that discharge to the East Stour which flows through the northern half of the site. The site is underlain by the Kent Greensand Eastern groundwater body. . In terms of their water quality, the available data indicates watercourses and groundwaters are of moderate quality.

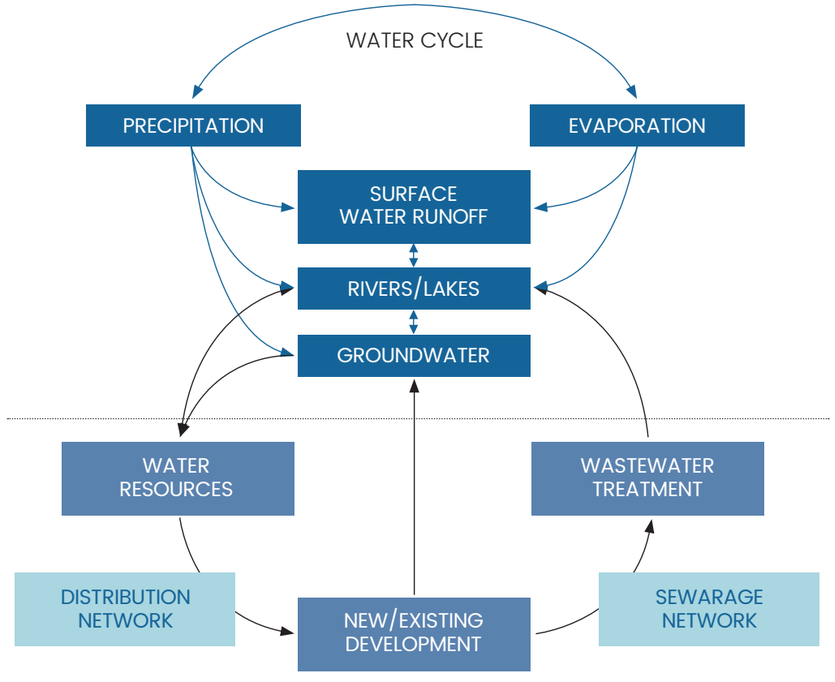
Particularly during the construction phase, the Development could potentially impact on the existing water quality by generating polluted runoff to watercourses and by excavations opening up pollution pathways to groundwater. These risks would be managed through adhering to the current best practice construction methods for pollution prevention. In addition, a variety of methods are proposed to be employed for different sources of runoff to effectively remove oils, metals, sediments and other impairments on water quality when designing and operating Sustainable Drainage Systems (SuDS). During the operation phase, the main potential for water quality effects is linked to the generation and discharge of wastewater. However such impacts would be minimised by the sustainable planning and implementation of both water reuse and wastewater treatment standards and methods that are fully recognised by the water industry. Surface runoff would be treated through a series of well-designed and interlinked SuDS, which would also provide for effective treatment of surface water runoff during the operational phase, safeguarding and improving water quality.

EA flood maps show the vast majority of the study area is at low risk of flooding from rivers and the sea, with a small area along the route of the East Stour River at medium and high risk. The construction and operational phases of the Development proposals have the potential to increase flood risk where new crossings of the East Stour are required and where the land drainage flows are changed due to an increase in land cover by impermeable surfaces. To ensure flood risk is not increased to the site itself or downstream areas, new built development (with the exception of proposed new bridge crossings) would be located on land at low risk of flooding and SuDS would ensure surface water runoff rates equal or are lower than existing rates. The proposed bridges over the East Stour would be designed to ensure no impediment to the rivers flow regime.

The study area is known to have limited surface and groundwater resources and is considered to be a water stressed area. Potable water is currently supplied via groundwater abstractions and treated water imported from neighbouring regions. Water Sensitive Urban Design principles would be set out in the detailed design stage of the Development, to restrict the maximum amount of extra potable water consumed by each new household to meet the policy requirement of a maximum of 90 litres per person per day consumption.

There are currently two treatment waste water facilities nearby, the Sellindge Wastewater Treatment Works (WwTW) located approximately 1km to the west and the West Hythe WwTW in the adjoining catchment approximately 7km to the southeast. Sellindge discharges to the East Stour and West Hythe WwTW discharges to the English Channel via a long sea outfall. Capacity constraints associated with the existing WwTWs and the sewerage network to accommodate increased flows from the proposed development as the development phases progress would be addressed with future investment and careful planning. Initial assessment detailed in the outline WCS indicates that upgrading the existing Sellindge WwTW (operated by Southern Water) or providing an onsite works are both viable options. These options would be taken forward for detailed assessment and a preferred option, once confirmed, would be phased and implemented ahead of the proposed development.

Overall, given the design and mitigation measures proposed, there are considered to be no significant adverse effects to surface water resources and flood risk, during construction or operation of the proposed development.



16 Transport

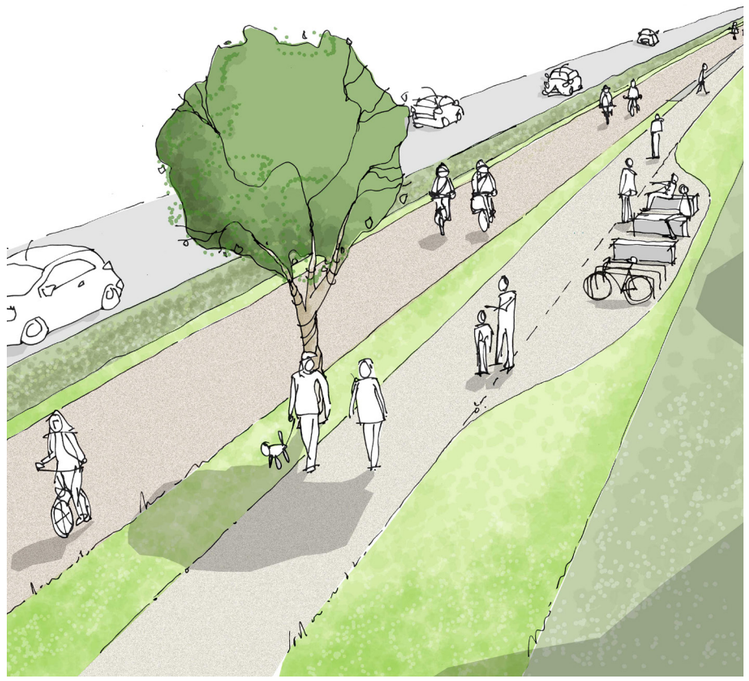
An assessment has been undertaken of the potential traffic and transport effects of the Otterpool Park development proposals on key receptors in the study area such as pedestrians, cyclists, other roads users and residents and land uses in the vicinity of the site. Extensive consultation was undertaken with key stakeholders including Folkestone & Hythe District Council, Kent County Council and Highways England. Ashford Borough Council and Canterbury City Council were also consulted on the scope.

The study area included key receptors located:

- Inside and directly adjacent to the application boundary;
- Along the M20 between Junctions 9 and 13;
- Along the A20 between Ashford in the west and Hawkinge in the east;
- Routes into Folkestone along Cheriton High Street/Cheriton Road and A260 Canterbury Road;
- Routes from the site into Hythe;
- Routes east and west along Aldington Road and south along Lympne Hill; and
- Routes north into Canterbury.

A full and detailed assessment of the local transport networks, impacts from the development and improvements needed to mitigate impacts during both the construction and operational phase was undertaken within the study area. The assessment covered the peak network hours (8-9am and 5-6pm) in the base year of 2018, as well as future years of 2044, the forecast year of full build-out for the 8,500 homes and associated land uses, and a 'sensitivity' test for the year 2046, representing the year of full build-out of the Otterpool Framework Masterplan Area. Each future year assessment included two scenarios. The first scenario represents the future transport conditions in 2044 and 2046 without the development, termed the 'base case'. The second scenario assesses highway network and other flows with the development in place. The impact of the development was quantified as the net difference between the two scenarios.

In accordance with relevant guidelines, the assessment considered impacts on key receptors in terms of factors categorised as pedestrian severance (i.e. being unable to cross the road), driver delay, pedestrian delay and amenity, pedestrian and cyclist fear and intimidation, and accidents and safety for all road users. The assessment of base and future year conditions on the transport networks was informed by site observations and audits, data collection, stakeholder meetings and desktop-based research and analysis. Future year assessments included committed transport network changes and planned and committed traffic growth. Traffic modelling undertaken for the Transport Assessment accompanying the planning application informed the assessment for the Environmental Statement. It was found that adverse impacts on receptors are expected in the base case scenario, including receptors at the following locations:



- The A20 Ashford Road junction with A261 Hythe Road and Stone Street;
- The A20 along Barrow Hill;
- The A261 Hythe Road east of the A20;
- Cheriton High Street / Cheriton Road;
- A260 Canterbury Road; and
- Nackington Road / Old Dover Road / St Lawrence Road / The Drive.

The development has been designed with embedded mitigation to reduce impacts on key receptors. The development provides for walkable neighbourhoods, with the majority of all homes within easy walking or cycling distances of facilities and services. This would comprise a highly connective and permeable network of footways and cycleways linking the town centre and local centres to and through the residential areas and to external routes which will link into existing footpaths and footways, which will be upgraded as appropriate. A series of pedestrian crossings will also be provided (for example, across the A20), in order to link the development to the east and south and reduce severance and pedestrian/ cycle amenity in this area. In addition, the junctions on site will incorporate controlled crossing facilities to afford priority to pedestrians and cyclists (and equestrians where there is a bridleway). An upgrade to the passenger facilities at Westenhanger Station is also being sought in conjunction with key stakeholders and it is intended that there would be a bus stop within 400 metres of the majority of homes and contributions to bus services to enable provision at 30-minute frequencies from early occupation, increasing to potentially every 10 minutes if demand required it. High quality bus stop facilities would be provided to make the services an attractive option for short and long journeys, with shelters, lighting and information. Infrastructure design will take account of the accessibility needs of the mobility impaired. Real time information on bus services would be available via bus stops or other appropriate technology for users. A site-wide Travel Plan together with rigorous resident, workplace and school Travel Plans will be put in place to promote sustainable travel.

The approach to the highway access strategy has been to mitigate impacts on the network but not to provide significant capacity increases elsewhere that encourage car use or the use of more sensitive routes. The strategy includes safety and capacity improvements of the A20 Ashford Road and a network of new streets with footpaths and cycleways. A number of off-site mitigation measures are proposed:

- Capacity enhancement at the M20 Junction 9 by improving road geometry, and cycle and signal timing optimisation;
- Capacity enhancement at the M20 Junction 11 through partial signalisation;
- Capacity enhancement of the highway network in the vicinity of Newingreen with a new link road and signalisation of the A20 Ashford Road junctions with Hythe Road and Stone Street;
- Mitigation of delay along the A20 at Barrow Hill, Sellindge through cycle timing optimisation and a potential signal control upgrade;
- New pedestrian crossing facilities along Aldington Road and Stone Street; and
- Contributions towards the mitigation of impacts on the A261 Hythe Road and Cheriton High Street/Cheriton Road.

The assessment showed that the embedded design and off-site measures would mitigate potentially significant impacts on key receptors for the following locations:

- Aldington Road, for pedestrian severance, amenity and accidents and safety;
- A20 Ashford Road at Barrow Hill, for driver delay;
- Stone Street, for pedestrian severance and driver delay;
- Cheriton Road, driver delay; and
- A261 Hythe Road, pedestrian/cyclist fear and intimidation, and driver delay.

Potential transport impacts during construction would be mitigated through the implementation of measures through a Construction Traffic Management Plan(s), including the identification of appropriate routes for construction traffic to limit impact on sensitive receptors as the development is built out.

17 Waste and Resource Management

An assessment has been undertaken of the potential effects of the proposed development associated with the generation of waste and waste management. The assessment considers the generation of waste from construction, demolition, excavation and the operation of the site due to the residential use.

A desktop study has established existing waste capacity and management within the study area. It is predicted that the construction and demolition activities of the proposed development would result in 172,137 tonnes and 35,939 tonnes of waste respectively being produced over the full construction period. Based on the site strategy (zero cut and fill balance) it is anticipated that all excavated materials will be reused on site. Construction waste would include hard and inert materials, soils and stones, plastics, packaging, insulation material, miscellaneous metals and canteen and office waste. The contractor would implement a Site Waste Management Plan during construction. This would set out good site and specification practices and would enable the minimisation, re-use and recycling of waste to avoid unnecessary landfilling during the construction phase. There is adequate capacity remaining in existing waste management facilities and landfill sites and therefore the effects of the construction phase on waste management would be neutral.

During the operational phase (2044), it is anticipated that approximately 14,509 tonnes of residual household waste and 14,546 tonnes of recycling household waste would be likely to be generated per year, without taking into account future recycling or composting measures. This effect would constitute a 0.234% of the capacity of existing waste management and landfill facilities and 0.301% of existing waste management facilities respectively in Kent. Therefore, the effects of the operational phase on waste management would have a neutral significance of effect.

The proposed development would include design measures for the adequate collection of waste materials, to maximise recycling and composting to comply with the Folkstone & Hythe District Council requirements for waste management.