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Otterpool Park

OP5 Appendix 4.11 Green Infrastructure Strategy

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Arcadis
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CONTENTS

1. INTRODUCTION

Show me a healthy community with a healthy economy and I will show you a community that has its green infrastructure in order and understands the relationship between the built and the unbuilt environment.

Will Rogers

1. Introduction

1.1 Aims and Objectives

1.1.1. Purpose of this document

The Green Infrastructure Strategy has been prepared on behalf of Otterpool Park LLP and is submitted in support of the Outline Planning Application masterplan for Otterpool Park.

The Green Infrastructure Strategy provides the framework for the existing and the delivery of proposed Green Infrastructure (GI). The approach to GI references the Natural England definition and an outline of the benefits it can bring to communities securing the network and connectivity to green and blue spaces. The Strategy seeks to plan a deliverable approach to retain and improve GI, considering this as a natural resource delivering a wide range of environmental and quality of life benefits (ecosystem services) for local communities.

The Strategy has brought together different disciplines including landscape, water, ecology and heritage specialists to understand the extent and nature of GI and ensuring GI is fully embedded into the design process. Extensive stakeholder consultation with Local Authorities, Kent Downs AONB, Statutory Environmental Bodies and other interest groups has helped shaped the integration of GI into the masterplan.

The Strategy sets out:

- The guiding vision and philosophy for the Green and Blue Infrastructure contribution;
- Explores context and establishes the baseline information;
- Assesses Green and Blue infrastructure opportunities; and
- Outlines proposed actions and principles for various open space typologies.

The strategy considers, at a strategic level:

- Promotion of green routes, in support of active transport principles like walking and cycling;
- The role of privately owned and inaccessible green spaces, including areas that support habitats and wildlife movement, contributing to the quality and character of the local environment;
- The contribution Green Infrastructure elements can make to flood alleviation, supporting the water management strategy;
- Shade provision and cooler conditions can be promoted as part of helping address the impacts of climate change;
- The role of trees and woodlands, opportunities for renewable energy generation;
- Land allocation for biodiversity functions, contributing to biodiversity conservation and net gain potential.

1.1.2. Goal of the Green Infrastructure Strategy

The principal aims of the Green Infrastructure Strategy are:

- To understand existing Green Infrastructure linkages at a sub-regional and local level;
- To identify the challenges and opportunities for delivering Green and Blue Infrastructure at Otterpool Park;
- To provide a set of strategic principles to guide delivery of the Green Infrastructure Vision;
- To communicate the value of Green Infrastructure and how this connects with other strategies;
- To demonstrate how Otterpool Park could be a unique Green Infrastructure led Garden City and sustainable settlement enriching the lives of the new community.

1.1.3. Relationship with other strategies

The Green Infrastructure Strategy is supported and integrated with several other strategies that collectively build a balanced masterplan for Otterpool Park.

The Green Infrastructure Strategy places focus upon the contribution that Green Infrastructure elements make to the masterplan in consideration of biodiversity, blue infrastructure, culture, health, access and recreation. Ultimately helping build Otterpool Park as a Healthy Place in which to live.

The Green Infrastructure Strategy should be read in conjunction with the following supporting information:

- The masterplan Spatial Vision;
- The Parameter plans;
- The Illustrative masterplan;
- The Design and Access Statement;
- The Landscape Visual Impact Assessment, ecology and natural capital strategies;
- The Environmental Statement;
- The Water Management Strategy;
- The Movement Strategy;
- The Heritage Strategy;
- The Sports and Recreation Strategy;
- The Governance Strategy.

1.1.4. Key messages from other strategies

All the different strategies combine to help shape the masterplan.

From a Green Infrastructure point of view, the strategy has endeavoured to embrace principles from those strategies that could have a particular impact upon Green Infrastructure.

The list below summarises the key strategic factors that have influenced the Green Infrastructure Strategy and helped shape the Masterplan arrangements, from a Green Infrastructure angle:

- The Landscape Led approach adopted by the Masterplan, has helped allocate approximately 50% of the development area to green space, helping integrate with the natural surroundings, improving access to nature;
- The Biodiversity Net Gain assessments (part of the Environmental Statement) have helped establish a 20% Biodiversity net gain target to which retention and enhancement of Green Infrastructure can contribute;
- Integrated flood and water management approaches, including the use of wetlands and other SuDS systems, are supported by the allocation of green open spaces as flood alleviation areas. For example Riverside Park and Barrow Hill Park;
- Using Green Infrastructure to highlight walkable trails helps improve awareness and access to local heritage features. This helps build local distinctiveness and builds upon educational benefits of learning about nature and local history;
- The Green Infrastructure strategy aims to bring forward Planting programs that promote advance establishment of trees and hedgerows and the use of pollinators avoiding the use of invasive species, building resilience;
- Otterpool park has the potential to be a walkable town and the principles of active travel, within the transport strategy, are supported by using Green Infrastructure elements to aid navigation, establish sense of place and add to pedestrian comfort (shade and shelter).

1.1.5. Structure of the Green Infrastructure document

The main sections of the document have been structured as follows:

1. Introduction – This section introduces the vision for the Green Infrastructure Strategy and sets out its principles, aims and objectives;

2. Context - this summarises scope and purpose and covers site and development descriptions;

3. Opportunities Analysis – This chapter defines Green Infrastructure and its benefits, outlines the vision and philosophy and ties in with other strategies and refers to Green Infrastructures' contribution to a resilient community;

4. Sitewide Approaches - This section defines Green Infrastructure and outlines relationships with other work streams such as ecology and water management;

5. Commitments and Next Steps- This demonstrates how the proposals can deliver in line with the principles and outlines the advance planting program;

6. Appendices.

1.1.6. The 3-tier application process

The Green Infrastructure Strategy is intended to support the outline planning application, as part of a Tier 1 application. For context the Tier process is outlined below:

- **Tier 1**: the outline application material itself, setting high-level principles for the Garden Town as a whole;
- **Tier 2**: a suite of more detailed masterplans and Design Codes principally focussing on individual areas that provide the 'rules' for guiding the detailed design of individual phases of the development; and
- **Tier 3**: Reserved Matters applications for individual phases ,including detailed design of buildings, streets and spaces.

This Green Infrastructure Strategy is a **Tier 1** document, and should be read in conjunction with the other documentation, with particular reference to the Strategic Design Principles Document and the Spatial Vision Document.

This document provides broad principles for Green Infrastructure in Otterpool Park, informing the development of a Strategic Design Principles Document. This will help shape future detailed Masterplans and Design Codes for each individual phase of development, supporting a coordinated approach across Otterpool Park.

Details of the approaches set out in some of the key documents is explored in more detail in Section 3 of this document and a full list is provided in the Bibliography section of the Appendices.

The broad principles of Green Infrastructure, applied to Otterpool Park, are listed in section 1 of this strategy.

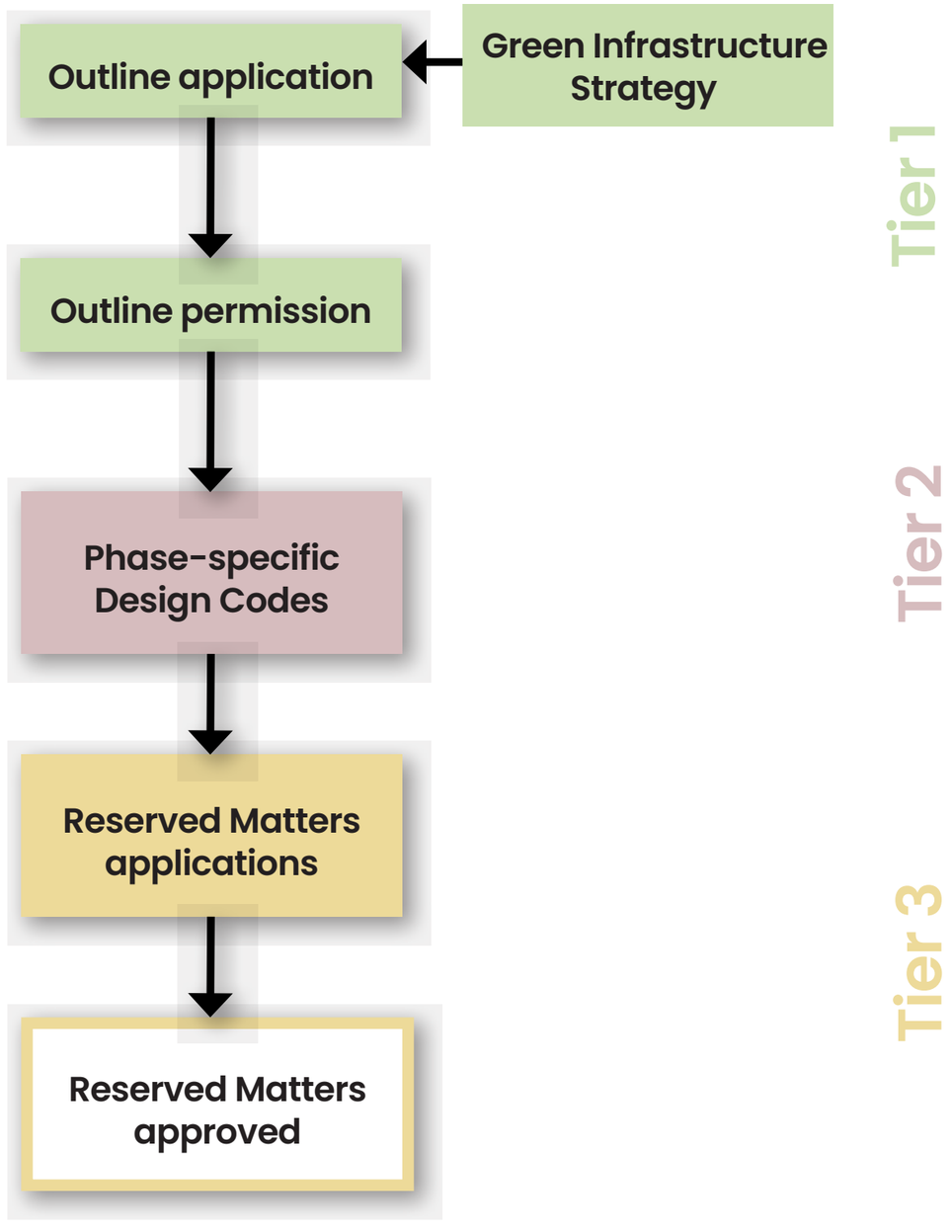


Figure 1: The Three Tiered planning permission structure

1.2 Vision Statement

By enhancing existing and planning new green spaces and corridors across 50% of the Otterpool Park area, the vision for Green Infrastructure aims to support a place that is integrated with its natural surroundings, brings people closer to nature and can adapt to future change.

The Otterpool Park Green Infrastructure assets will link to the surroundings and strategic spaces of the Kent Downs AONB

Through a Landscape and Green Infrastructure led masterplanning approach, the strategy is aimed at creating an exemplar **connected community**, linking places where people live, through green corridors and a network of strategic destination green spaces out into the **surrounding countryside**.

Figure 2: Green Infrastructure integrating people and place with nature

1.3 Visionary Objective - 'Doorstep to Countryside'

The diagram below and plan opposite demonstrate an imagined journey through the various Green Infrastructure through the site, with the transect numbers indicating these points across the route.

Green Infrastructure will enrich the lives of the people who live in Otterpool Park, right from their doorsteps to the wider countryside. From front gardens and street trees, through allotments and orchards to destination green spaces and green connections into the wider countryside, it will help integrate the community into its natural setting, provide connections with habitat and surrounding villages, benefiting health and well-being.

Figure 3: Doorstep to countryside typical journey transect

Figure 4: Doorstep to Countryside - typical journey in plan

1.4 Green Infrastructure Principles

1.4.1. Principles

Green Infrastructure should be multi-functional, helping an area of land to perform several functions and offer multiple benefits if its ecosystems are in a healthy state. More specifically, Green Infrastructure supports nature's ability to deliver multiple valuable ecosystem goods and services, potentially providing a wide range of environmental, social, climate change adaptation and mitigation, and biodiversity benefits.

The GI is designed to maintain and enhance the delivery of benefits to human society in the form of food, materials, clean water, clean air, climate regulation, flood prevention, pollination, and recreation. These benefits are known as ecosystem services.

Green Infrastructure, when considered in partnership with Blue Infrastructure, promotes multi-functionality. This has multiple benefits including health and ecological benefits, promoting social interaction, building resilience to flooding and climate control, and enhancing property values.

Eleven guiding principles have been established for GI in order to achieve multi-functionality and deliver the guiding Vision for Otterpool Park.

Principle 1: Integrate Blue and Green Infrastructure

Build on the multiple benefits of integrating green and blue infrastructure in order to make the best use of space and by doing so create additional benefits which enhance the performance of natural systems.

Principle 2: Promote Health and Wellbeing

Create a healthy place with green infrastructure close to home, accessible to all. Physically and visually connect people to nature with walkable/cyclable routes, providing spaces for sport, growing healthy food and quiet contemplation.

Principle 3: Build Resilience

Help to build a resilient place, with green and blue infrastructure linked as part of an ecosystem. Support the design and management of spaces to increase benefits such as natural flood management and drainage capacity. Improve biosecurity through the monitoring and control of invasive species and plant disease which may have a negative impact on green infrastructure.

Principle 4: Create Strategic Open Spaces

Shape communities around strategic open spaces. Create a network of green spaces that help integrate communities into the natural surroundings and respect the local heritage.

Principle 5: Improve Connectivity

Increase accessibility, visibility, and wayfinding, to help make Otterpool Park a walkable place, connecting it with existing neighbouring settlements and beyond. Consider the connections between habitats within and beyond Otterpool Park. Consider movement corridors as spaces; create a range of uses within the corridors and integrate green infrastructure elements, managed appropriately to balance sharing of space between people and wildlife.

Principle 6: Enhance Biodiversity

Support enhanced biodiversity through the promotion and management of spaces which support native and local provenance species, deterring invasive plants and encouraging pollinator species whilst in balance with recreational needs.

Principle 7: Positive Planting

Draw on findings of the Landscape and Visual Impact Assessment (LVIA)supporting the planning application, to guide a planting framework that contributes to local character, adds to sense of place and helps with orientation.

Principle 8: Green Infrastructure at all Scales

Ensure that green infrastructure is woven through Otterpool, from gardens and balconies, through river and wildlife corridors, local and larger strategic parks, and connecting with the wider countryside.

Principle 9: Towards Climate Change

Use green infrastructure to mitigate and adapt to climate change. Advocate reduced carbon through growing food locally, managing temperature, water supply, river and surface water flooding, reducing erosion and helping other species to adapt.

Principle 10: Engaging the Community

Contribute to community care and investment, with Green Infrastructure elements that support flexible spaces, to accommodate events and spaces that can encourage environmental management and stewardship, such as community managed orchards and allotments.

Figure 5: The eleven Green Infrastructure Principles

2. CONTEXT OVERVIEW

2. Context overview

2.1 Existing Landscape Context

2.1.1. Origins

The Weald

The Otterpool site lies at the edge of the area once known as the great Weald.

The Weald, a Saxon word meaning 'forest' was an area of ancient woodland stretching from the marshes of Kent, through Surrey and Sussex to the New Forest in Hampshire.

It was made up of three parts:

- **The High Weald** - sandstone central area crossing the East Sussex and West Kent boundary;
- **The Low Weald** - the clay area on the periphery of the area;
- **The Greensand Ridge** - the area of higher land on the fringe of the Weald. The site lies on the north facing slopes of the Greensand Ridge.

Though much forest has been cleared, the area remains one of the most heavily wooded parts of England.

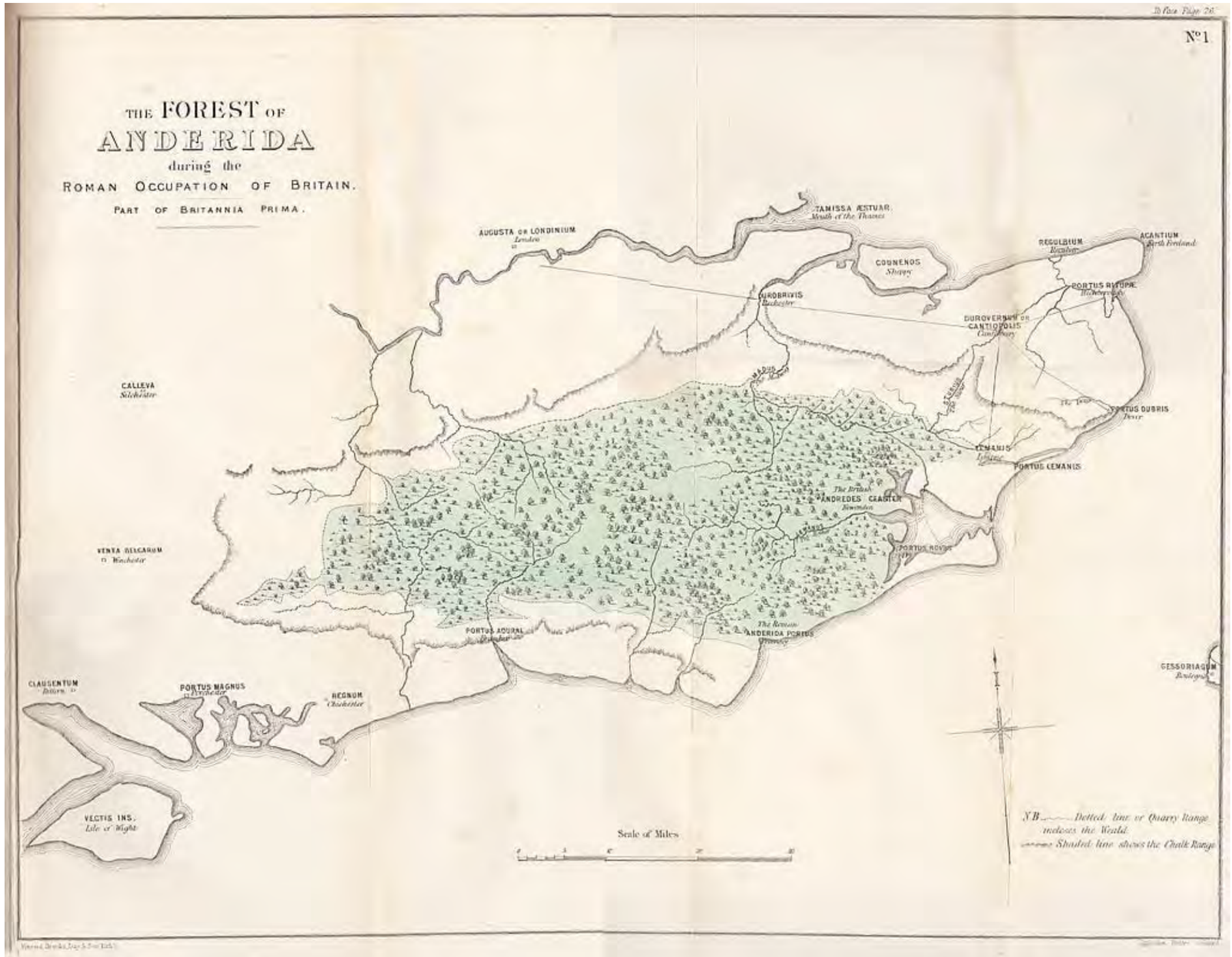


Figure 6: Originally 'The Weald' formed an extent of Forest that connected across the Counties of Kent, Surrey and Sussex.

2.1.2. Evolution of Place

Figure 7 represents an illustrative time line of how the land at Otterpool has changed through history from a naturalised forest landscape (The Weald') to a deforested agricultural landscape.

The significant levels of tree planting proposed at Otterpool Park will reintroduce some of the woodland areas lost through time, building upon the concept of a 'reforested' settlement and using Green Infrastructure elements to connect and integrate with the natural surroundings.

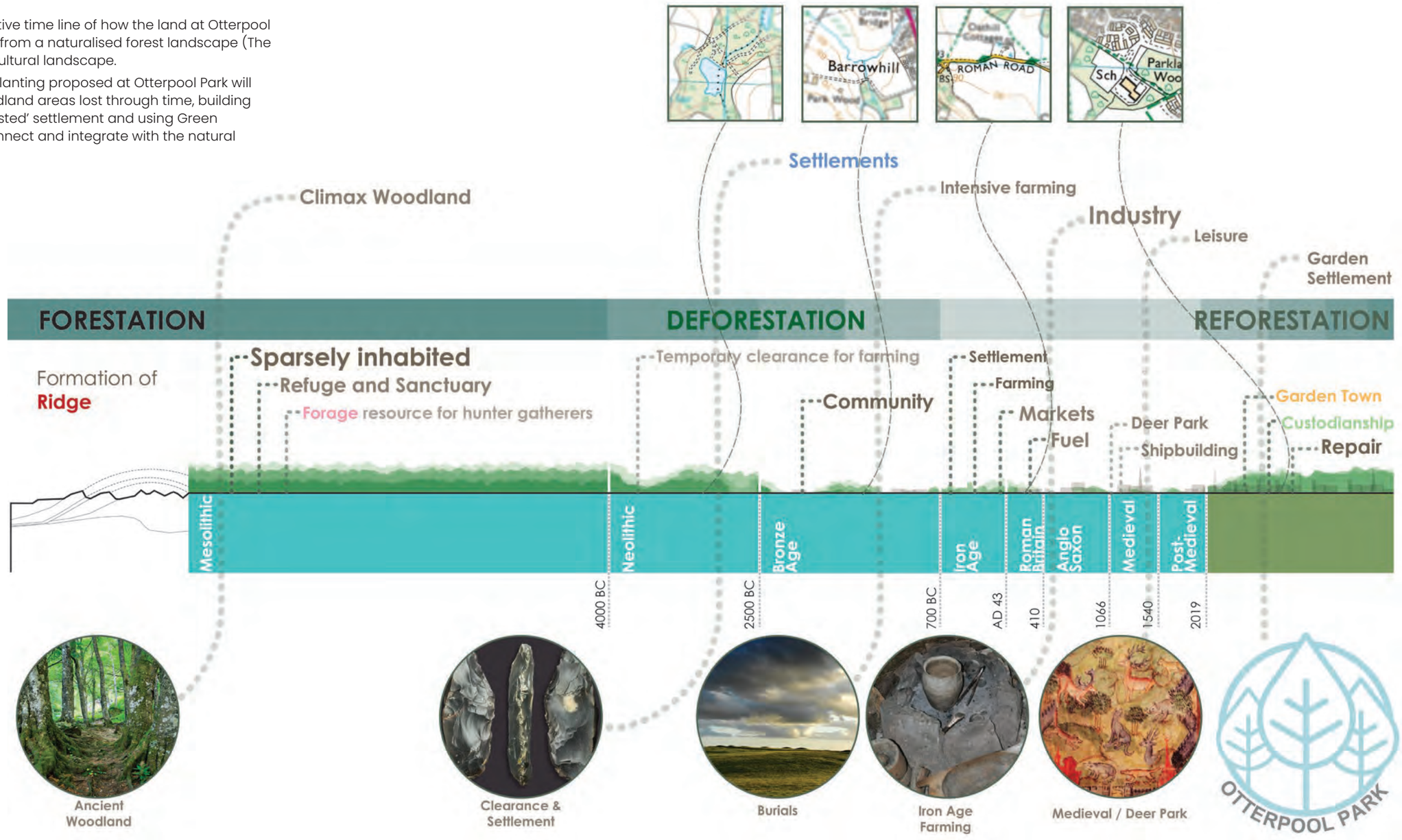


Figure 7: Placemaking Principles

2.1.3. Regional location context

The Otterpool Park site is located in the west of the Folkestone and Hythe District. The towns of Folkestone and Hythe are located to the south east with Ashford to the north-west.

The area is bounded by the M20 and Ashford-Folkestone railway line to the north, the A20/Stone Street and Sandling Park to the east, Harringe Lane to the west and Aldington Road to the south.

Westenhanger station on the Ashford-Folkestone railway line is within the master plan and a key opportunity for the location of the proposed Garden Town.

The Kent Downs Area of Outstanding Natural Beauty (AONB) bounds the area along its eastern and southern edges and approximately 1.25km to the north.

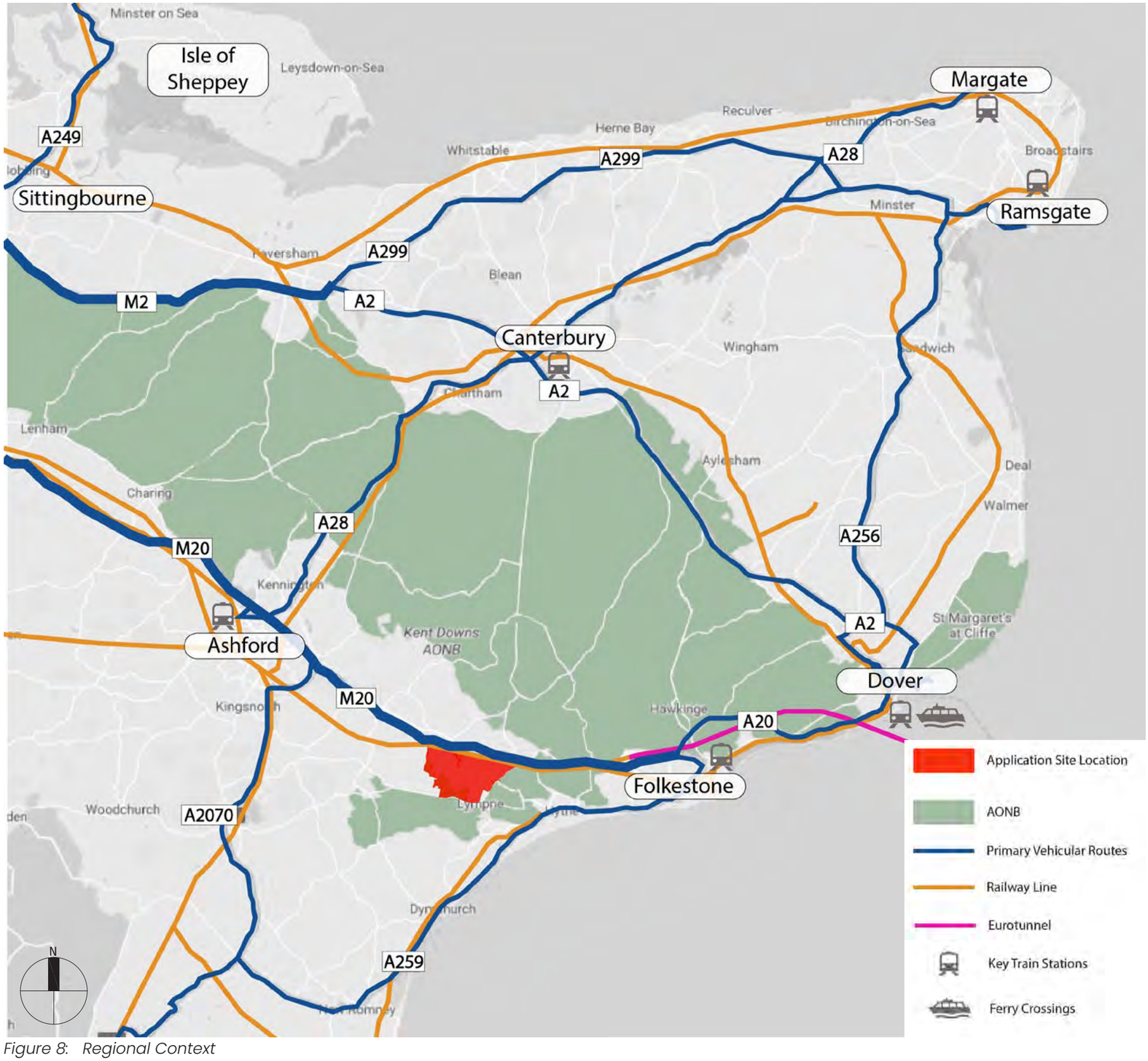


Figure 8: Regional Context

2.1.4. Local Green Infrastructure Context

The surroundings

The plan opposite maps out areas of Green Infrastructure existing in the areas surrounding the Otterpool park boundaries. This includes existing woodlands, local registered parks and gardens as well as surrounding local settlements and walkable routes connecting them.

Areas of green infrastructure in sensitive neighbouring sites, such as Harringe Brooks Wood, which is privately owned and not accessible to the public, still provide important visual amenity.

Views from the local area towards Hythe and the coast as well as views back across the vale provide a visual connection with destinations further afield and the wider countryside, an asset in itself.

Existing and surrounding communities

Five distinct communities are within or adjacent to the application area:

- Westenhanger to the north where, aside from the castle and station, existing buildings are primarily residential,
- Lympne is a residential community which lies to the south east,
- Barrow Hill, Sellindge and Newingreen are small residential communities to the north-west and east respectively.

The surrounding communities and villages have played a large part in Otterpool Park's development to date as have the historic manor estates and the existing farms on Harringe Lane.

The existing farmland is historically related to a landscape of small villages and farms creating a network to provide food for the local town market.

Assessments covering existing habitat, section 2.1.6. Ecology and biodiversity base lining exercises are in referenced in section 4.3 Ecology and are detailed in the Environmental Statement; Appendix 7.21 - Biodiversity Net Gain Calculations

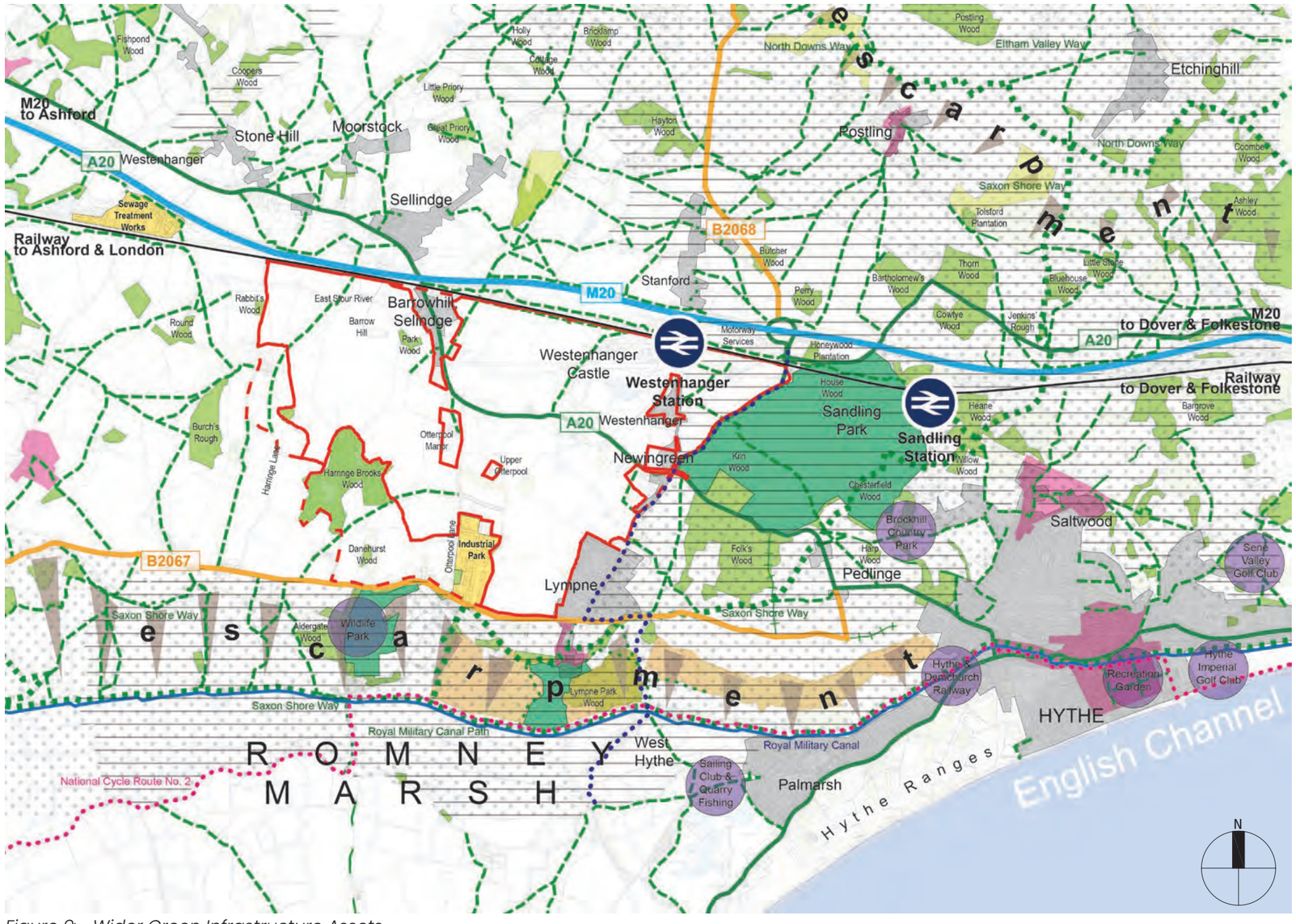


Figure 9: Wider Green Infrastructure Assets

..to protect and enhance key views, to provide orientation within Otterpool Park itself and to signpost to wider destinations...

KEY

- Framework Boundary
- Application 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 & National)

- Kent Downs Area of Outstanding Natural Beauty (AONB)
- Local and Registered Parks and Gardens
- Open Access Land (CROW Act 2000)
- Special Landscape Area (Folkestone & Hythe District Council)
- Conservation Area ((Folkestone & Hythe District Council and Ashford Borough Council)
- Lympne Escarpment SSSI

The Site: Existing Land Use

As indicated on the map diagram opposite, the principal existing uses, across the site, contain:

- A former racecourse;
- Areas of arable farming;
- Areas of pasture, generally on the steeper slopes;
- Areas of commercial use (distant from the existing settlements).

There are many visual detractors associated with road and rail transport corridors and linear development.

Walkable Connections

Today, the local communities have very limited access across the Outline Framework Masterplan Application site, therefore this area (c. 765ha) is largely closed to public access apart from a small number of poorly connected footpaths, many severed by the railway line.

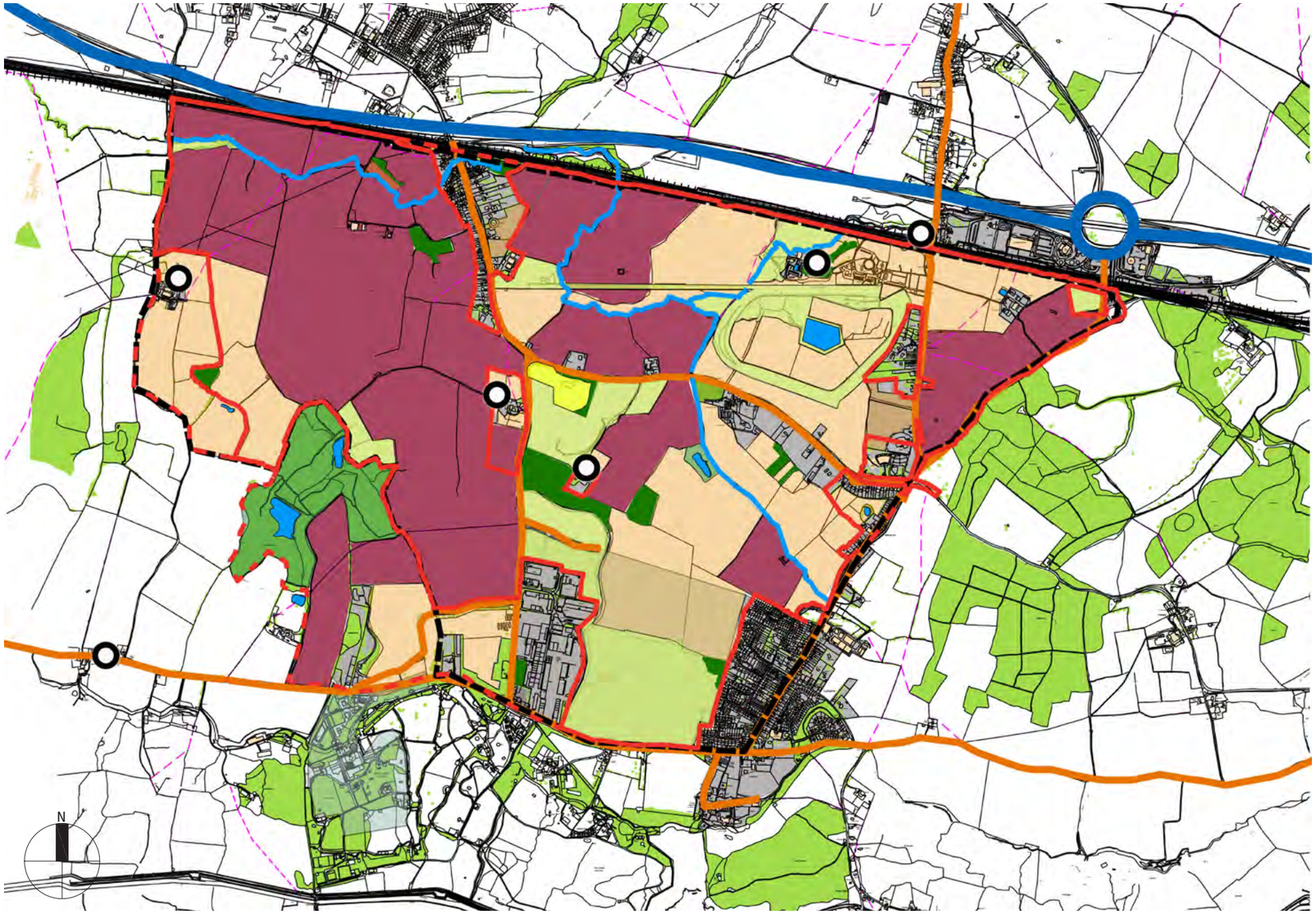


Figure 10: Existing Land Use

..Otterpool Park will give both new and existing residents access to a wealth of green infrastructure..

2.1.5. The Site: Existing habitat

The plan opposite, illustrates key findings from a Phase 1 habitat survey, which identifies habitats likely to be of nature conservation value, and investigating the potential for protected or notable species of plants and/or animals.

Habitat baseline exercises (Environmental Statement Appendix 7.3) conclude that the site is dominated by large areas of relatively common and widespread habitat, predominantly arable and improved grassland (forming over 70% of the site area).

Existing Biodiversity

Being intensively farmed, these areas have less biodiversity value, although areas being managed under higher-level stewardship (HLS) within some field margins are of higher value.

Areas which have the potential to qualify as priority habitats are:

- **Rivers** - none of the rivers on site are considered to be S41 qualifying, but these form the headwaters of S41 qualifying chalk streams downstream, so will be treated as such for mitigation purposes;
- **Ponds** - a subset of the ponds would likely qualify under as S41 habitat (i.e. those which support great crested newts);
- **Arable Field Margins** - the margins within the farmland managed under a HLS scheme are likely to qualify as S41;
- **Hedgerows** - the majority of the hedgerows are likely to qualify under this priority habitat description;
- **Traditional Orchards** - a small area south of the A20 is likely to qualify under these parameters;
- **Wet Woodland** - most of the trees within the riparian corridor would qualify under the parameters of this habitat description;
- **Lowland Mixed Deciduous Woodland** - Harringe Brooks Wood and Kiln Wood are adjacent to the site, these may potentially qualify as S41 habitat; and Park Wood and Springfield Wood, two deciduous woodlands are present on the site. Park Wood and Springfield Wood are historic components of the landscape, having been present since at least 1880 (from historic maps). In addition, there are small woodlands present elsewhere on the site, particularly roadside woodlands and small, young woodland blocks likely to have been planted as screening;
- **Open Mosaic Habitats on Previously Developed Land** - there are limited areas of this habitat within the defunct lorry park south of the A20 and the Link Park land to the north of the operating area of Link Park (east of Otterpool Lane).

More information on existing habitat, related to Biodiversity and statutory designated areas within and outside the site boundary, is included as part of the Ecology chapter section 4.3

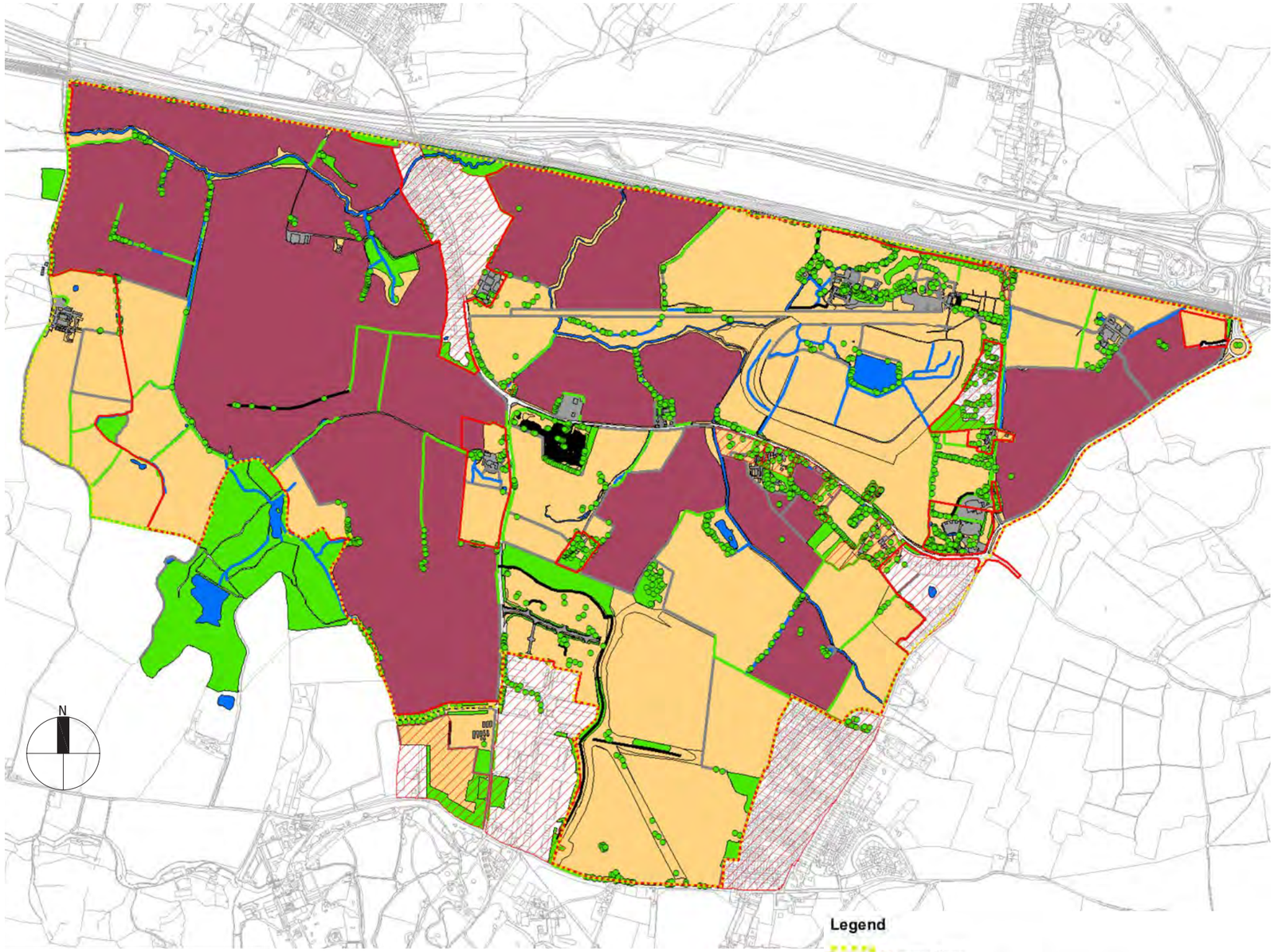


Figure 11: Existing broad habitat types - key taken from Phase 1 Habitat Survey

..a deliverable approach to retain and improve Green Infrastructure, considering this as a natural resource delivering a wide range of environmental and quality of life benefits...

2.1.6. The Site: Existing Landscape Character

Landscape Character Areas

The existing site and its rural and settlement context are made up of a number of landscape character areas including rural and arable farmland, the existing communities of Lympne, Sellindge, Stanford, Barrow Hill, Newingreen and Westenhanger, the existing historic buildings, the railway, river and M20 corridors, and areas of visual detraction.

Most of the site is within the Kent County Council Landscape Character Area (LCA) of Sellindge Plateau Farmlands; a small area is in the Upper Stour Valley LCA and the southern edge is in Aldington Ridge LCA. The entire site sits within the 'Lympne' Character Area as defined in the F&HDC 'High Level Landscape Appraisal', 2017.

Site specific Landscape Character

Based on the existing character areas and with further landscape analysis, a set of new local character areas has been created for Otterpool Park and is represented in the Spatial Vision. The spatial vision and the masterplan begins to define new places which are specific and integrate them into the landscape, to ensure the development feels like a special place, heavily influenced by its location and heritage.

2.1.7. Contextual summary

Reflecting upon the context information and mapping exercises undertaken the bullets below aims to summarise the stand-out factors:

- M20 and railway corridors to the North link Ashford and Folkstone, but challenge **connection** with surrounding villages and the **AONB** to the North East;
- Multiple **walkable routes** exist but are not well connected;
- The landscape character has evolved from its forested origins to a landscape dominated by **Arable farmland, grassland** and sporadic woodlands;
- Valuable Habitat is limited, but **grassland and wetlands** are noted, some areas such as **Harringe Brook woods** and the **Lympne Escarpment** are not publicly accessible;
- Generally the area has **low Biodiversity** value, mainly due to farming, however there are areas which have potential to improve;
- The site contains many culturally valuable features, **Westenhanger Caste** and a number of individual buildings. Some features are an integral part of the landscape, such as the Castle grounds causeway access route.

Moving forward, the following section aims to analyse the conditions summarised above and begin to identify opportunities where Green Infrastructure can contribute to improved connections, access and biodiversity.

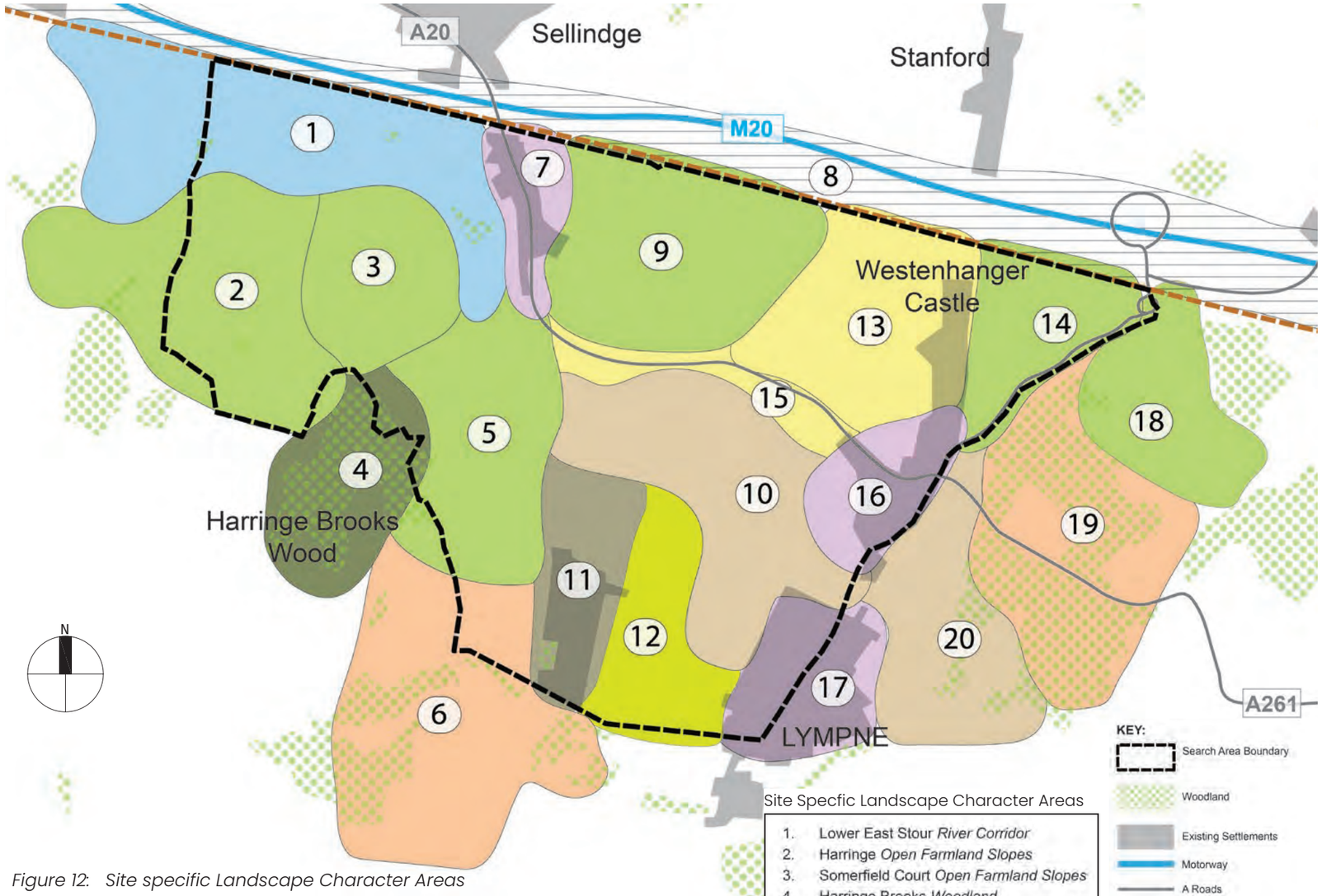


Figure 12: Site specific Landscape Character Areas

.. a set of new local character areas will be created for Otterpool Park, breaking the master plan down into areas complementary to existing character, relating to and taking influence from the existing landscape characters...

3. OPPORTUNITIES ANALYSIS

3. Opportunities Analysis

3.1 Opportunities Overview

3.1.1. Challenges and Opportunities - Broad view

The diagrams on the following pages and the list below, aim to illustrate the key challenges and opportunities that exist for Otterpool Park.

Section 4.3 Ecology highlights some of the Biodiversity Net gain and Habitat specific opportunities.

Section 6.4 Structure Planting plan outlines the proposed planting programs, typologies, species and phased implementation strategies that can help support the potential biodiversity net gain targets (Environmental Statement Appendix 7.21 page 20)

Example opportunities:

- Westenhanger train station offers quick transport links locally and nationally. The station is potentially within walking distance of most destinations on the site, with existing footpaths and bridleways that could be improved and connected with national footpaths and cycle ways;
- Surrounding the site, are areas of priority habitat largely Ancient Woodland (Harringe Brooks Woods and Sandling Park) with other priority habitats associated with Lympne Escarpment. Not always physically accessibly they contribute to the overall character of place and offer visual amenity;
- Local centres are spread out and have the potential to link together offering the community a range of services, not available previously.

Example challenges:

- The existing transport network causes severance between the site and the adjacent landscape, in particular the M20 and railway line. Visual and noise buffers may need to be considered to reduce negative impact;
- There are a large number of listed buildings and monuments which will need to be considered carefully to avoid detrimental impact. These historic features however also provide opportunities to enhance and celebrate the local history and character of the area;
- Areas of biodiversity priority are limited within the Otterpool park site itself, there are opportunities outside the boundary however, refer to opportunities.

The Priority Biodiversity areas illustrated by the diagram opposite, refer to areas that are or have the potential to contribute to net gain. These areas, as existing are mapped in more detail in Section 4.3 Ecology (Environmental Statement Appendix 7.21 Pages 7, 10 and 13)

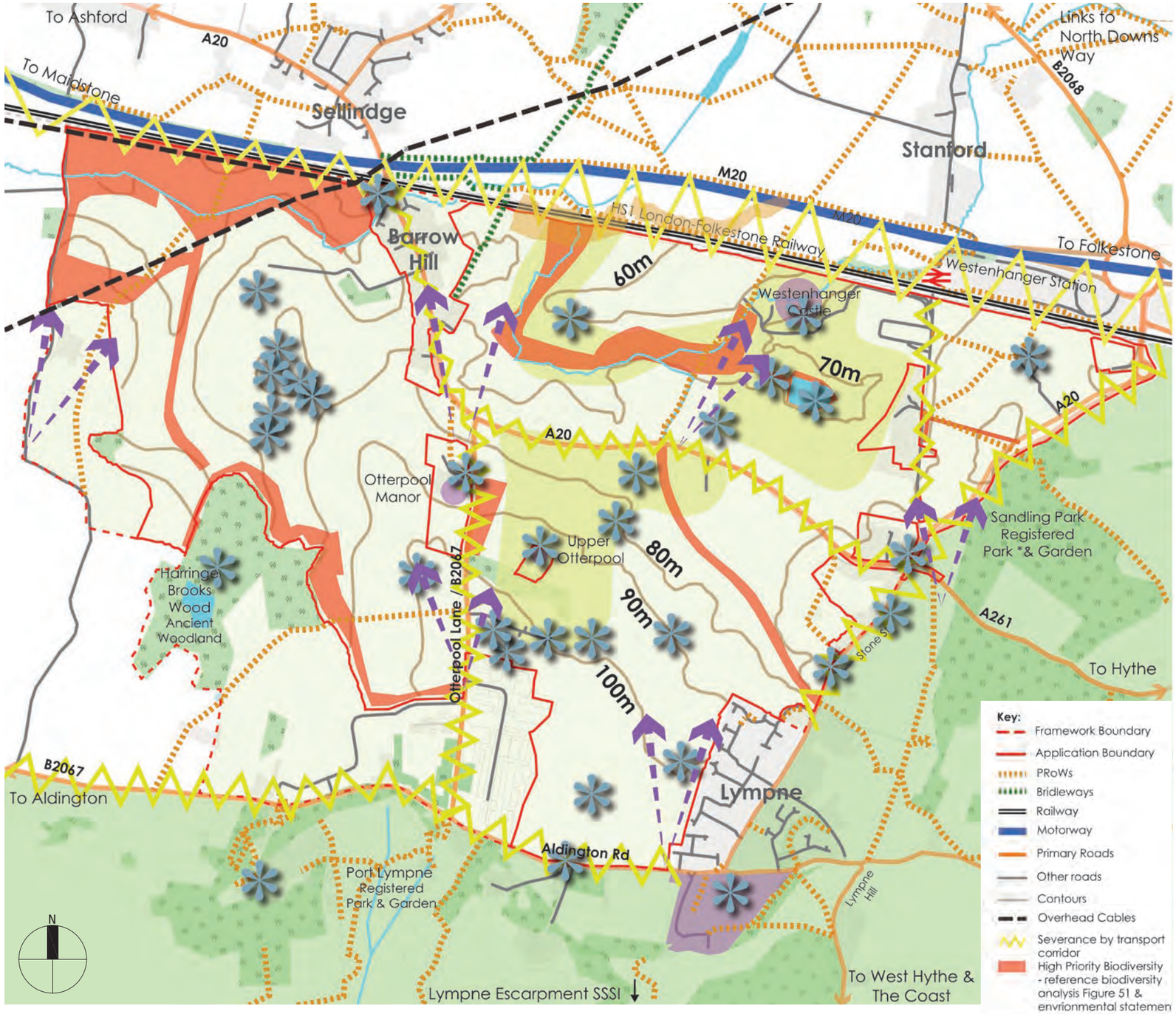


Figure 13: Challenges and Opportunities Overview

3.2 Principal Opportunities

3.2.1. Connections through the Vale

As part of its aspiration to be walkable place, Otterpool Park aims to use a connected network of green open spaces, footways and cycleways to link with surrounding communities. This also helps to provide access to a diverse range of services that may not have otherwise been accessible.

There is an opportunity for improved connectivity to help link Otterpool Park with neighbouring communities and reach out into the wider surroundings with improved linkages promoting connections to Hythe and the coast.

.. Otterpool Park aims to use a connected network of green open spaces, footways and cycleways to link with surrounding communities...

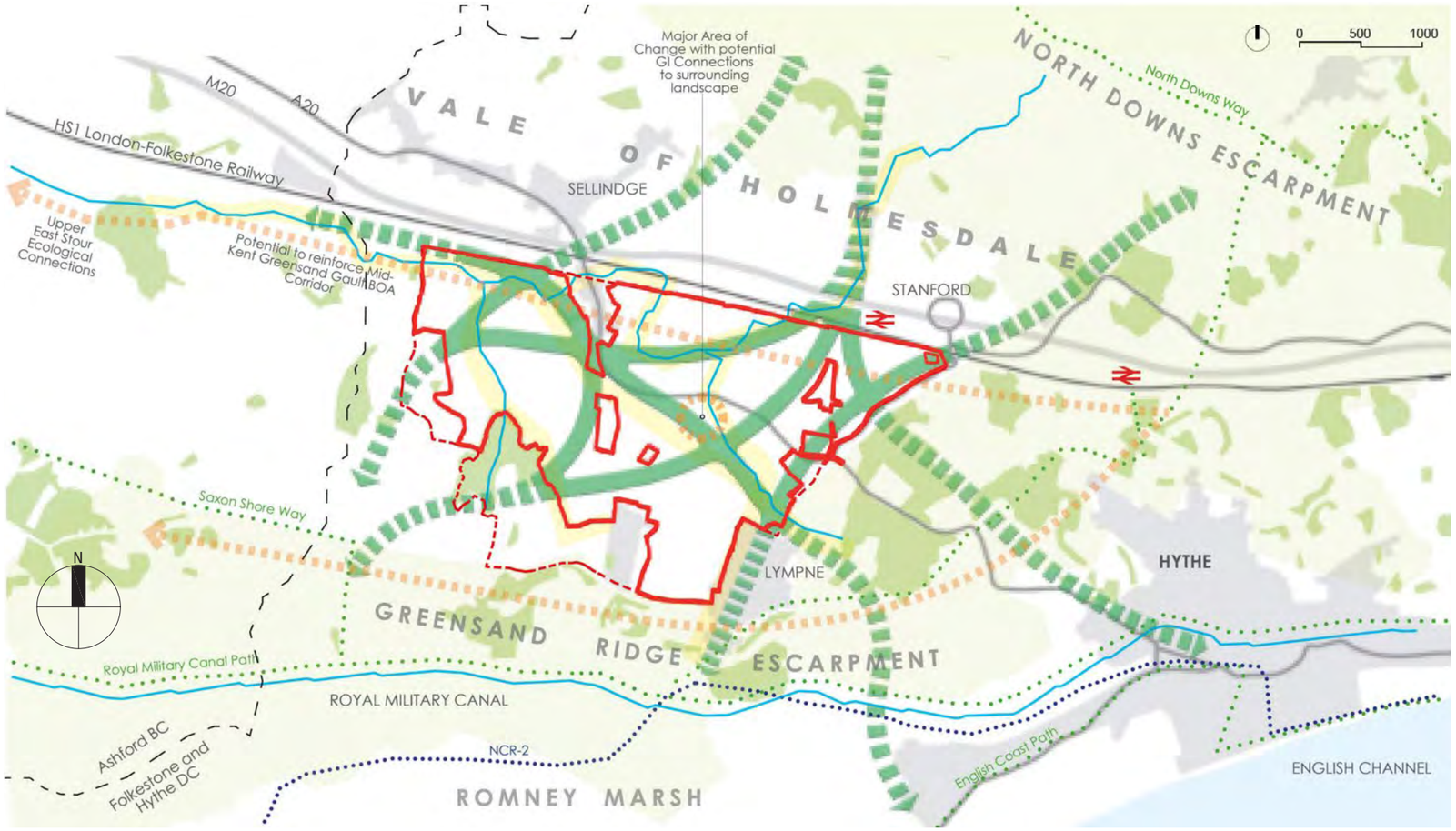


Figure 14: Connections through the Vale

3.2.2. Green Infrastructure

A key opportunity for Otterpool is its location, its natural surroundings and its proximity to other areas of green open space, such as Areas of Outstanding Natural Beauty.

There is an opportunity to make maximum use of these existing elements, helping current and future Green Infrastructure elements to contribute to:

- The integration of space with blue Infrastructure, supporting natural drainage and water management helping mitigate flood risk;
- The integration of communities, both human and wildlife, connecting them with the natural surroundings and each other;
- The establishment of place, using existing and proposed forests, tree belts and structure planting to maximise views and visual connection within and outside the boundary.

..Integrating blue and green infrastructure helps the function of natural systems, adapting to the challenge of climate change and supporting health and well being and biodiversity...

Figure 15: Green Infrastructure Opportunities

3.2.3. Walkability

The size of Otterpool Park means that, with an appropriate network of attractive routes, it could be possible to walk from one side to the other in around 40 minutes.

If the '10 minute town' concept could be adopted, most homes would be within walking or cycling distance of facilities, services and places of work.

An opportunity exists to use Green Infrastructure elements to:

- Identify and connect walking and cycling routes as a real alternative to motorised transport;
- Provide visual connections between neighbourhoods and surrounding communities, linking services and local amenities;
- Improve awareness of the proximity of the place to the wider countryside and provide connections to it.

How could this be achieved?

- Provide attractive walking and cycling routes, linking footways and green corridors, with a network of formal parks, play and recreational open spaces;
- Use green infrastructure elements such as avenues of trees or hedgerows for navigation and way finding;
- Provide tree lined walking and cycling routes including along main transport routes to create environments that people want to walk along.

.. The '10 minute town' concept being adopted for Otterpool Park will help the community to access facilities, services and places of work, by walking or using a bicycle...

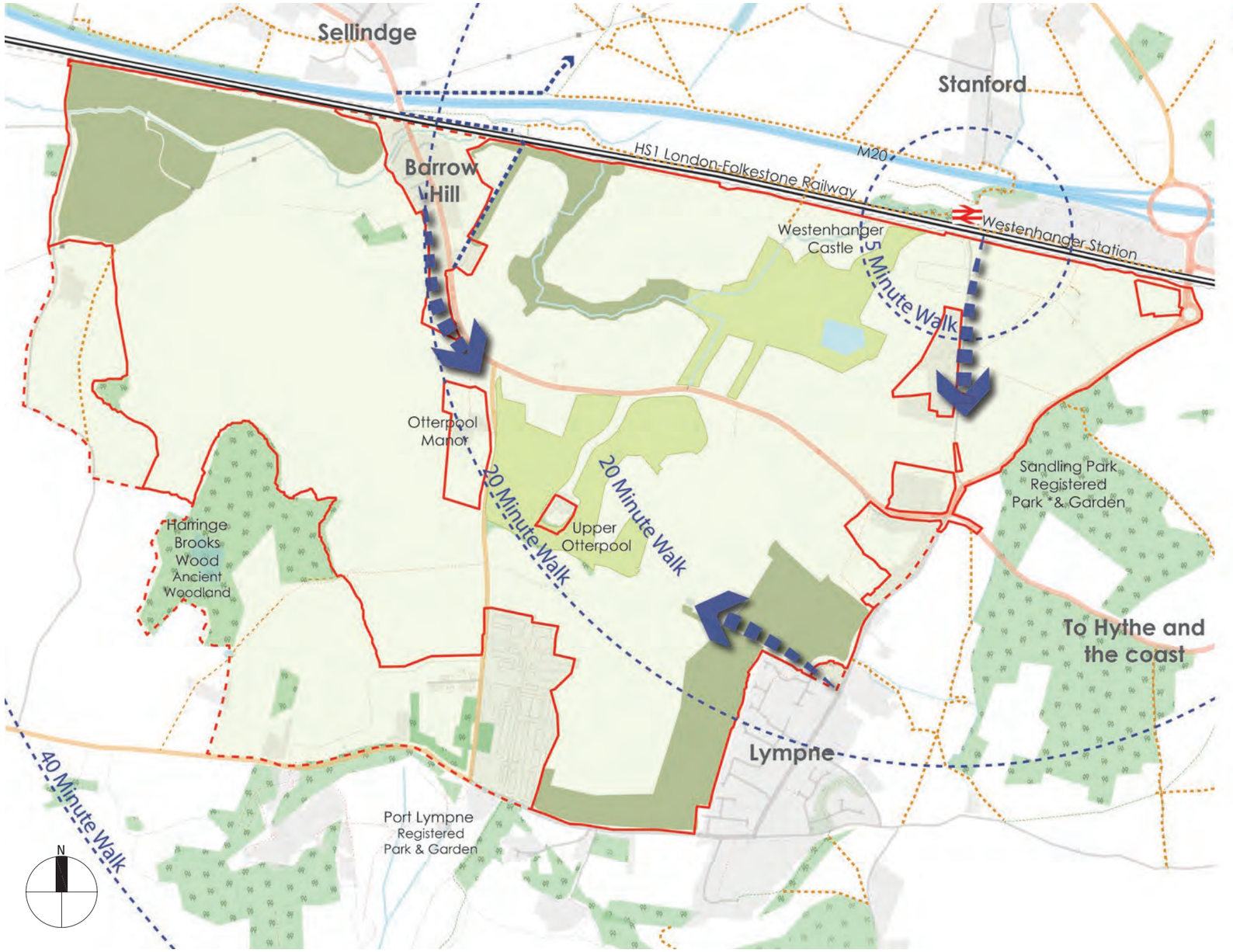


Figure 16: Walkability and Movement

3.2.4. Integration

Existing communities and businesses surround the site for Otterpool Park, however these communities are fairly rural and not all provide a full range of amenities for their residents.

There is an opportunity for Green Infrastructure elements to help bring the surrounding villages and communities closer together:

- Maximise use of views from the Kent Downs AONB and Downs escarpment from within and areas surrounding the Site;
- Encourage community investment with productive spaces like allotments and orchards, driving community ownership;
- Integrate Green Infrastructure elements into building typologies. For example by incorporating green roofs on homes or providing green space to the front and rear of the property.

How could this be achieved?

- Utilise the existing topography to help integrate Otterpool Park into its surroundings, improve awareness and orientation;
- Use LVIA study to draw benefit from advance and structure planting, focused upon views and setting;
- Utilise a palette of native species that integrates into the local vernacular.

Note - The Otterpool Park LLP has commissioned a separate Kentish vernacular study, which is being submitted In support of the Outline Planning Application.

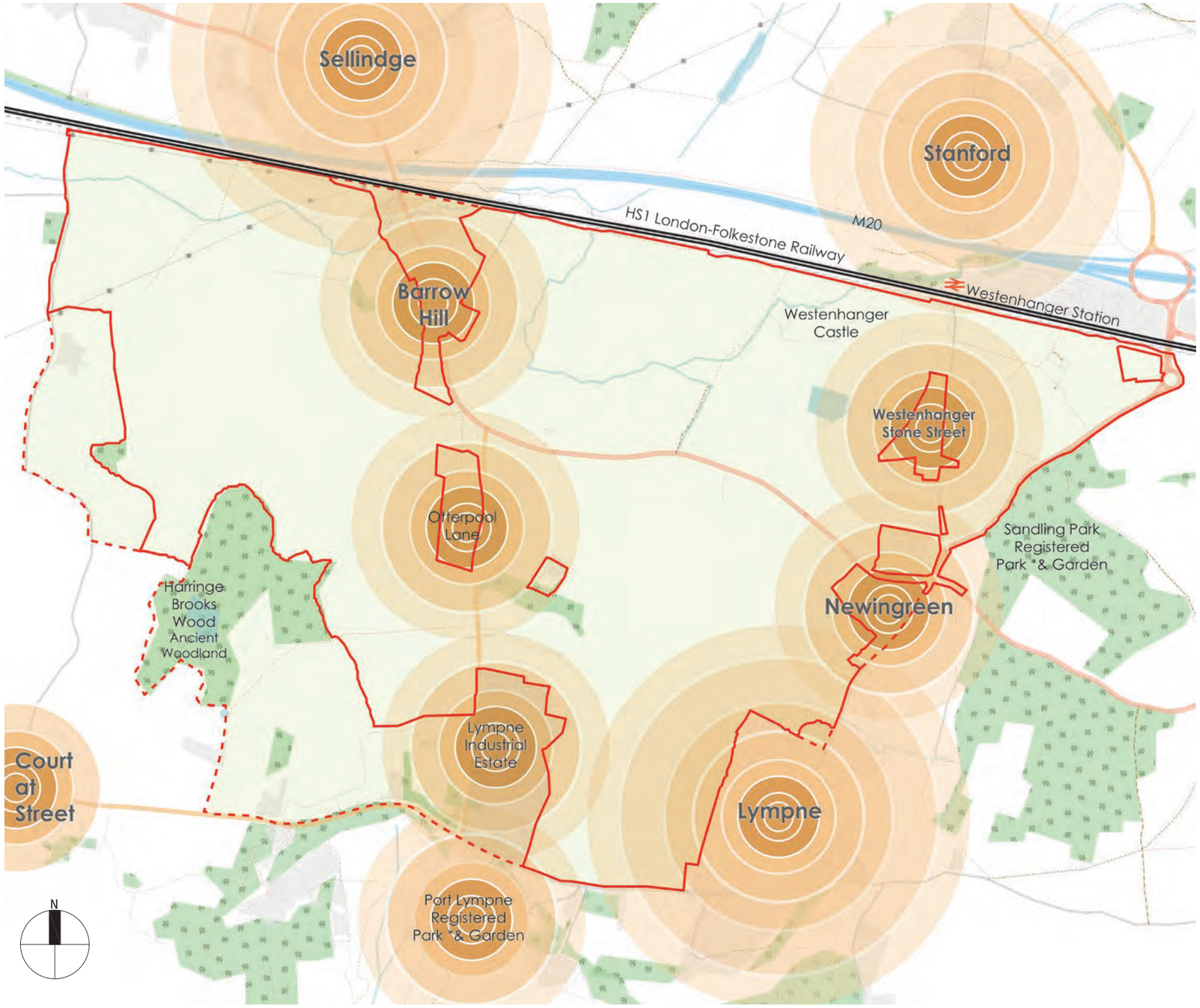


Figure 17: Integration and Community

3.2.5. Strategic Destination Green Spaces

Otterpool Park's spatial context provides an opportunity to accommodate a number of strategic destination spaces, around which to shape the development.

Green infrastructure elements can provide an interface between open space resources and a wide range of property types, aiming to:

- Create a family of strategic destination parks that serve a wide range of uses and characters;
- Utilise these spaces as part of a connected network with footpaths and cycleways;
- Develop a strength of character within these spaces that relates to the natural surroundings, integrates the community within it and supports a new vernacular.

How could this be achieved?

- Consider recreational use and adaptive uses with these spaces, helping build a resilient place;
- Build upon spatial characteristics, building local distinctiveness, heritage, and ecological assets;
- Consider the use of native species and climate adaptive species.

Figure 18: Strategic Destination Green Spaces

3.2.6. Health and well being

The location of Otterpool park opens up opportunity to take advantage of natural assets by bring people that live there closer to these assets.

There is an opportunity to help people experience the natural landscape from the smallest to largest scale as part of a better place to live. Key aims behind this would be:

- Enable the community to take an active role in the care of certain spaces;
- Broaden accessibility to spaces, beyond physical access toward visual and perceived;
- Enable people to get closer to nature, learn about natural processes and interact.

How could this be achieved?

- Incorporation of productive spaces such as allotments, orchards and community gardens will help provide space for which the community can invest into and care for;
- The open space network considers all forms of access, for walking alongside an area that is not physically accessed but can be visually accessed, provides benefit;
- Provision of spaces which support all forms of recreation, for example contemplative spaces as well as space for active sports.

Figure 19: Health and Well-being principles

3.2.7. Using Natural Resources for Recreation and Play

The Otterpool Sports Strategy sets out principles for consideration of open space and formal sports activities. Planting and green infrastructure can play a role in defining space for formal sports, help integration with the natural surroundings and contribute to functional aspects, such as increasing natural drainage

Natural Play can support this formal provision providing an opportunity for play, rather than prescribing play.

An opportunity exists for Otterpool park to use existing and proposed Green Infrastructure element support this, by:

- Consider play opportunity for informal recreation, for example walking through areas of nature, as well as formalised play areas
- Using Green Infrastructure elements such as trees and hedges to define areas of play;
- Provide accessible Green Infrastructure elements to support opportunites to learn about nature and its benefits first hand.

How could this be achieved?

- Where possible, enhancing adjoining tree belts to help provide green linkages and help increase awareness of the surrounding natural elements
- Provide Functional space that is visually open, with natural surveillance provided by adjacent land uses;
- Consider Green Infrastructure elements contribution to the visual, as well as physical accessibility, to open spaces to broaden uses. E.g. as an educational resource.

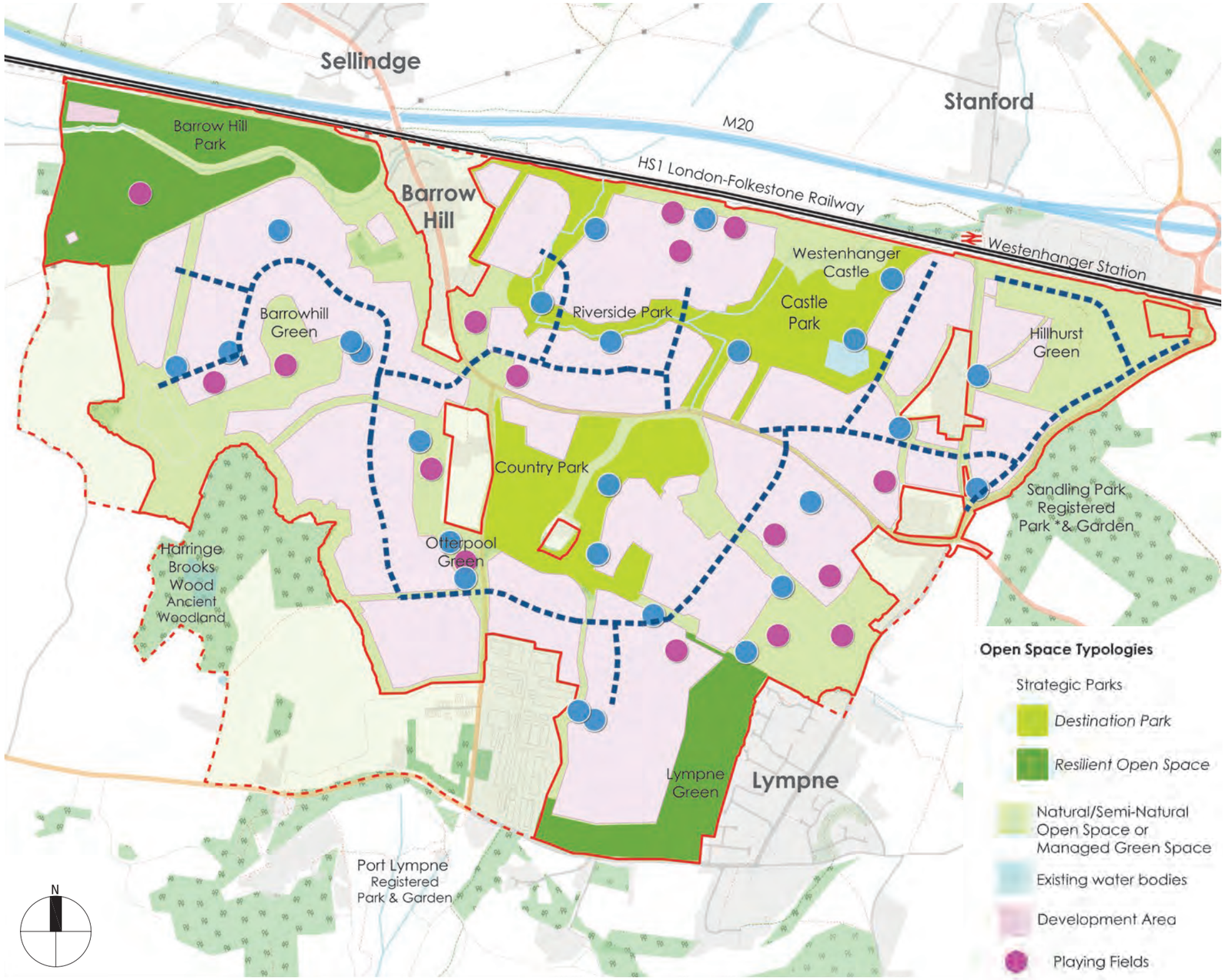


Figure 20: Using natural resources for recreation and play

3.2.8. A sustainable place

Otterpool Park's Sustainable aspiration

Otterpool Park has an opportunity to make the most use of its location, natural surroundings and existing village character to provide a sustainable place, in which people will want to live. *Otterpool can build upon these advantages by:*

- Promoting the benefits of Otterpool Park as an exemplar sustainable place;
- Promote walkability, active travel and public transport options;
- Make the most use of the local, natural resources.

How could this be achieved?

- Use Green Infrastructure to support walking and cycle networks, linked with access to public transport options;
- Incorporate spaces and elements that help natural systems, like river systems, to function;
- Connect the community with sustainable goals by supporting access and community stewardship environment, as well as the unknown challenges around climate change.

At the same time, the area possesses tremendous opportunity; to become a truly walkable neighbourhood, to integrate new into existing and to maximise use of its natural resources to create a healthy place to live, an opportunity to be an exemplar sustainable community.

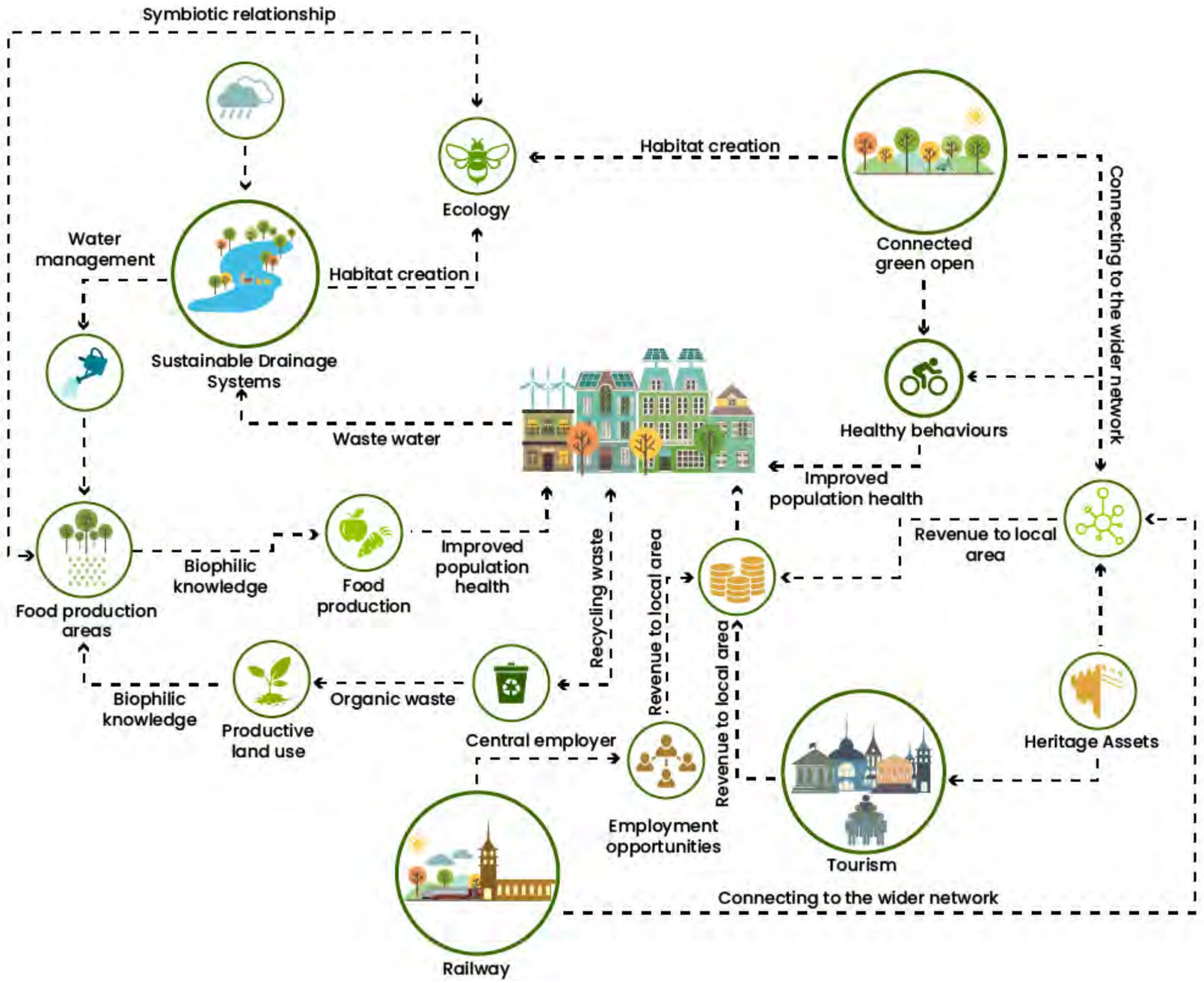


Figure 21: Connected services diagram adapted from The Hammerby Model

3.2.9. Nature towards resilience

Drawing from Nature to build resilience

Helping communities to live in close proximity with nature and engage with natural elements, can draw benefits such as learning about natural processes and improvements to health and well-being.

By combining the principles of nature loving (biophilic) urbanism, Otterpool park can strengthen its ability as a place to adapt and become a resilient place, helping it prepare for future challenges such as those of climate change.

Green Infrastructure elements have a role to play in building this adaptive capacity.

Resilience and Water management

Otterpool Park Green Infrastructure assets can help support integrated water management plans and flood risk mitigation, allocating water retention and flood alleviation areas, that are otherwise used as green open spaces. By including such spaces that are flexible builds in an ability for the place to adapt to changes in the environment.

Planting Species

The risk assessment, on existing and proposed green infrastructure elements, completed as part of the environmental statement, can be used to guide the suggested species lists and a pollinator strategy.

An opportunity exists to use the results of these studies to support the development of advance planting programs.

A note on Ash die back

There is an opportunity to utilise the Landscape and Visual Impact assessment to inform advance planting programs and help address risks to existing trees and woodlands.

Early identification, built from the LVIA surveys can be used to drive monitoring, as part of an ongoing stewardship and management program for Otterpool Park, helping minimise the risk of outbreaks.

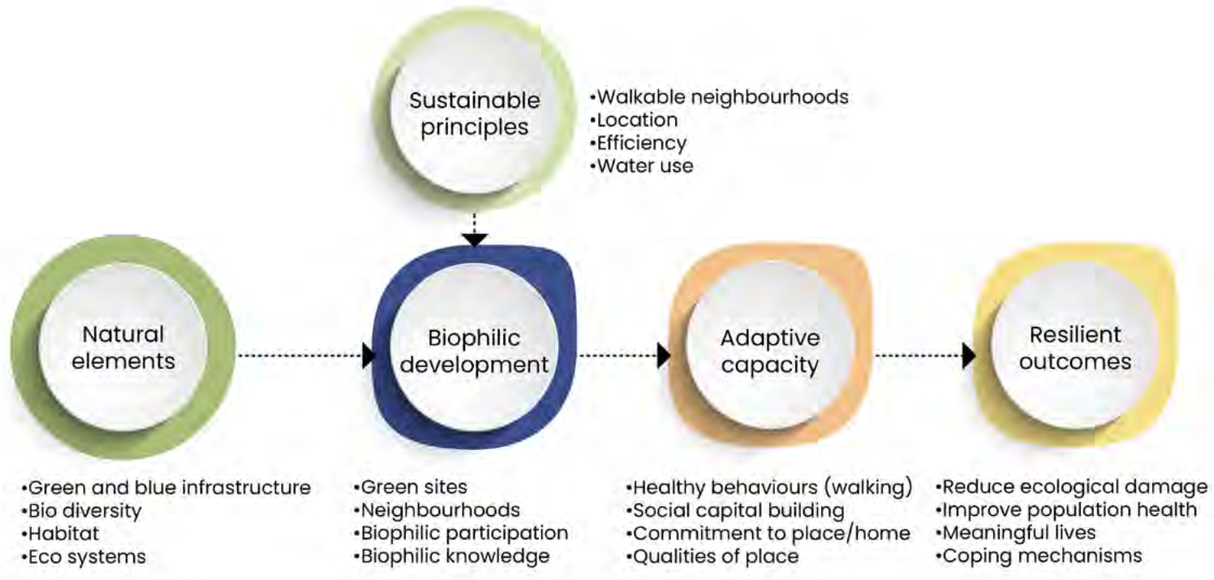


Figure 22: Nature towards resilience principles

3.2.10. Landscape and Green Infrastructure Concept Development

Baseline

The Existing Green Infrastructure and related land uses around Otterpool park, present an opportunity to create a landscape led plan that positions natural assets and green open space as key drivers to how the different land uses are arranged and connected.

Existing green infrastructure should be used as a start point for the development of a green infrastructure framework that can guide an overall concept, enhance and improve Green Infrastructure performance.

The plan opposite aims to map out existing Green and Blue Infrastructure assets and features as a start point for the development of a framework that supports the landscape led approach

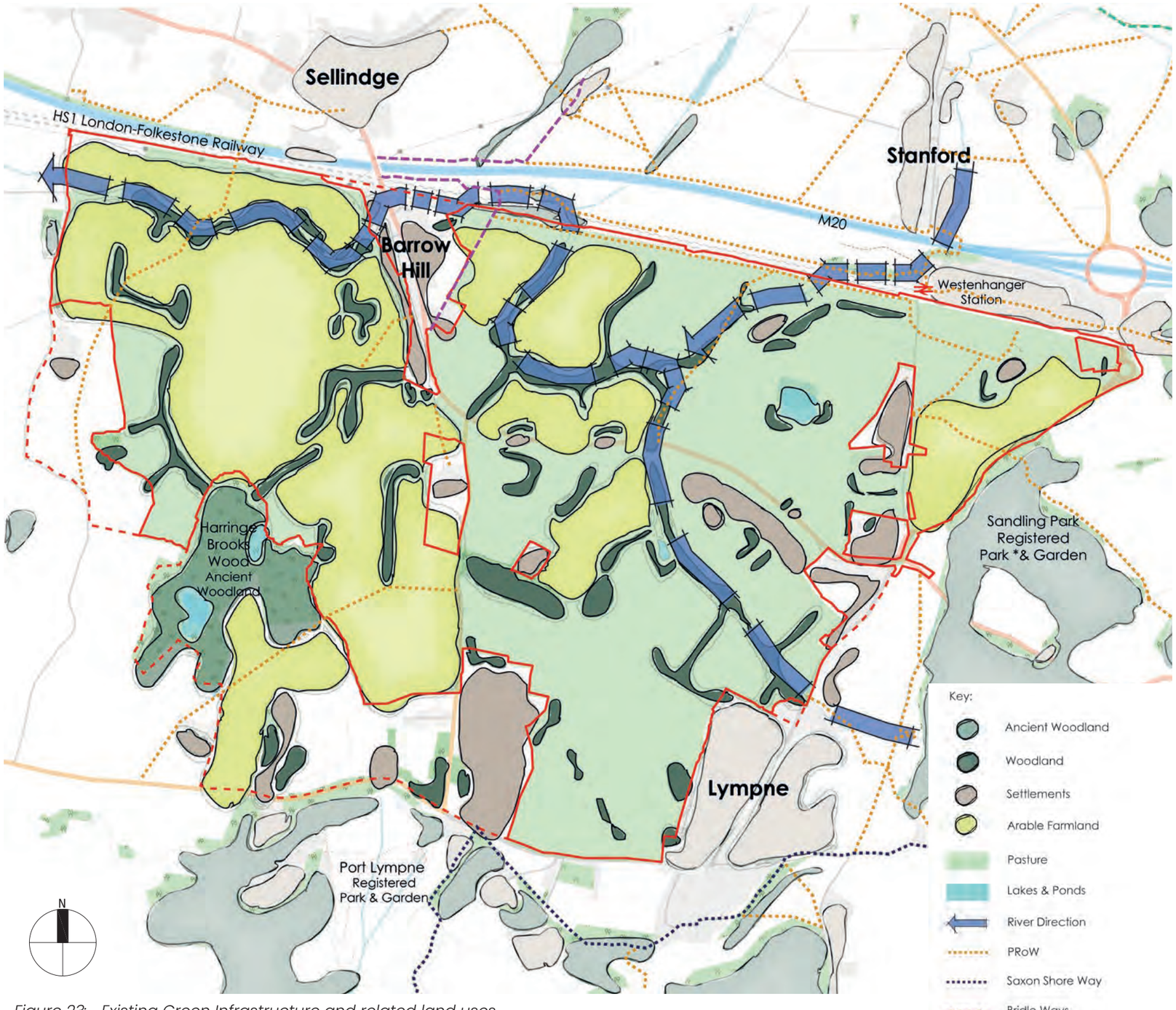


Figure 23: Existing Green Infrastructure and related land uses

Landscape and Green Infrastructure Framework

The Otterpool Park proposals plan to build around three destination park spaces that help integrate the community with the existing surroundings. These strategic spaces include, Castle Park, Country Park and The Riverside Park, refer to Figure 75 on Page 87.

This forms the core of a Green Infrastructure framework which encompasses the following:

- Enhancing existing landscape and green and blue infrastructure assets such as the river corridor, the SSSI site and dark corridors for wildlife;
- Celebrating heritage through respecting the setting of the heritage assets, for example; Westenhanger Castle, the route of the ancient causeway and the farmstead setting at Hillhurst Green;
- Embedding the development within the landscape by considering advanced and screen planting, enhancing views and drawing upon requirements of the environmental impact assessment;
- Careful consideration of offsets and interfaces/use of space adjacent to existing settlements, heritage and landscape designations, including land use choices in areas such as Lympne Conservation Area, the SSSI and Harringe Brook Woods ancient woodland;
- Placement of amenities such as recreation and play to maximise the opportunity for green infrastructure to support these amenities.
- Using Green Infrastructure to create recreational routes and amenity spaces as alternatives to the formal movement corridors.

Figure 24: Initial concept built around strategic open spaces and Green Infrastructure connections

Landscape and Green Infrastructure Concept

The concept diagram in Figure 25 demonstrates how the masterplan approach has been landscape-led and how the design has been influenced by the intention to protect and enhance existing landscape and green and blue infrastructure features.

This includes retaining existing significant views and valuable areas of green infrastructure including existing significant vegetation and valuable habitats or mitigating where this is not possible.

It demonstrates how the masterplan design evolution has been shaped by the creation of three key open spaces - Castle Park, Otterpool Country Park and the Riverside Park - and the strong green links between them and the wider countryside. It also highlights how the green infrastructure supports the setting of heritage and designated landscape features including key buildings and the SSSI.

This supports the creation of a place that:

- Contains an attractive and varied network of spaces for people; ensuring accessibility from the doorstep to the wider countryside;
- Protects, conserves and enhances existing habitats;
- Connects the scheme's green infrastructure within and beyond the site;
- Reveals, enhances and integrates the existing watercourses and woodlands;
- Utilises the natural topography, landscape character and existing and historic landscape features to retain local landscape distinctiveness.

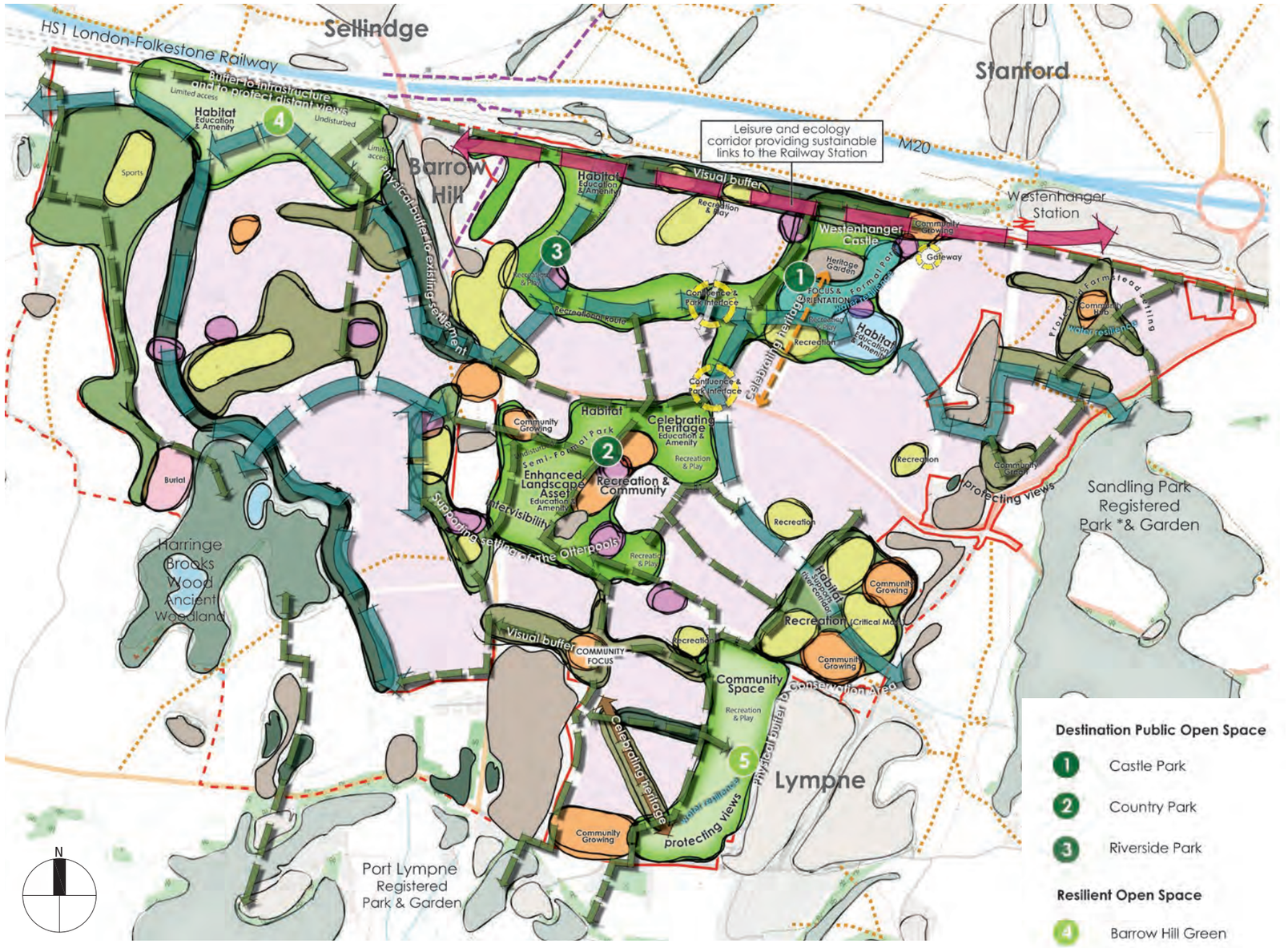


Figure 25: Landscape and Green Infrastructure Concept

4. SITEWIDE APPROACHES

4. Sitewide Approaches

4.1 Green Infrastructure

4.1.1. Existing and Proposed Green Infrastructure

Existing green open space and the existing landscape character, has been used to drive the development of three key strategic park spaces.

The purpose of the GI framework is to provide an organised structure of Green Infrastructure typologies and identify where they occur physically within the development, helping illustrate where principles are being applied and providing a basis from which to potentially monitor net gain requirements.

Any required monitoring of net gain could potentially be based around the phased proposals for structure planting (Appendix 6.4) Implementation of an appropriate condition, should happen at later stages of the application and will be discussed in advance with the Local Planning Authority.

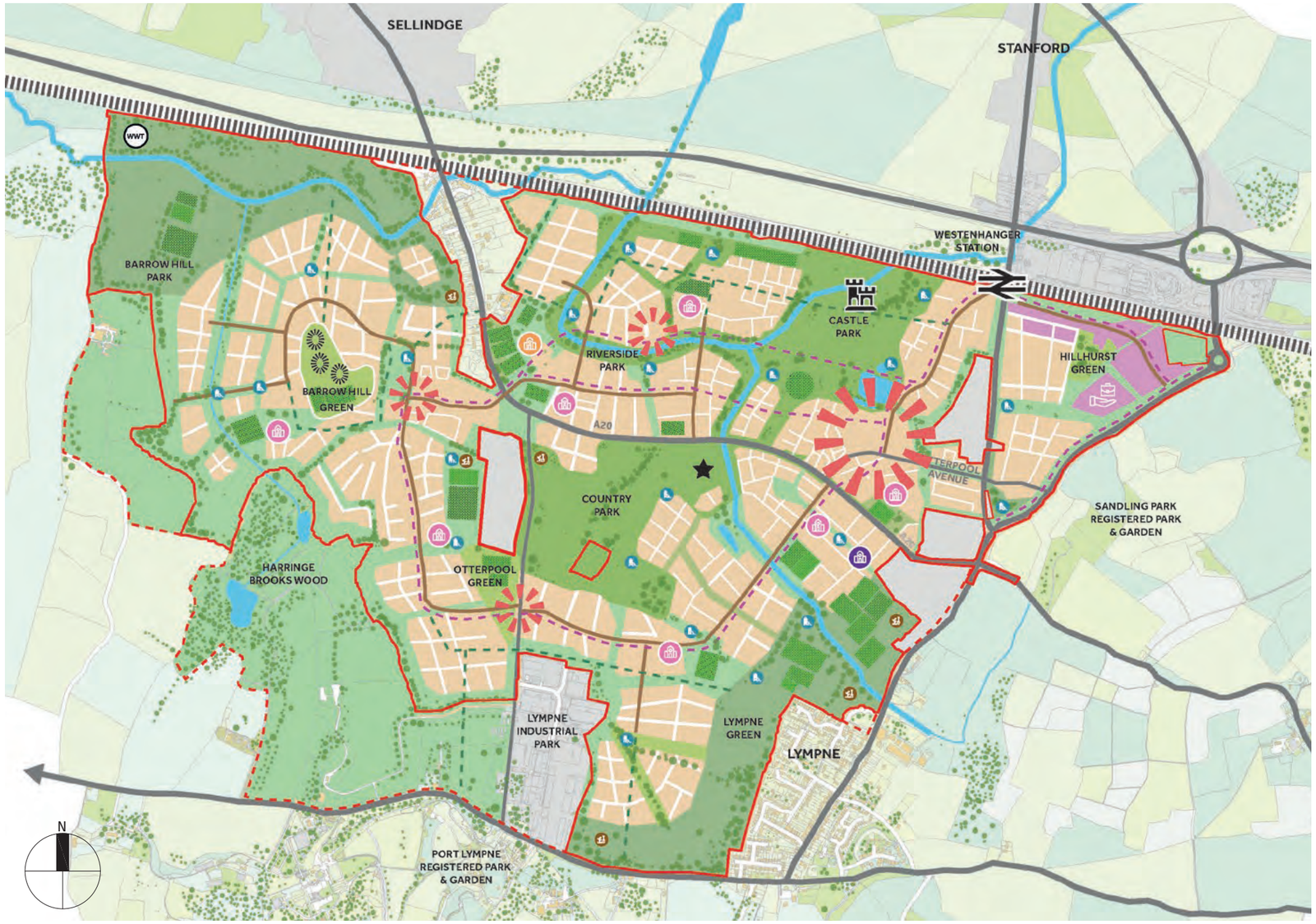


Figure 26: Existing and Proposed Green Infrastructure Framework as shown as part of the illustrative masterplan

- Outline Application Boundary
- Masterplan Framework Boundary
- Resilient open space
- Destination green space
- Managed green space
- Natural / semi-natural open space
- Land for development
- Existing communities
- Employment Area
- Proposed Sports Pitch area
- Existing roads, A20 & Otterpool Avenue
- Proposed primary and secondary streets
- Town-wide strategic cycle & pedestrian routes
- Sub-regional strategic cycle & pedestrian routes
- Town and Local Centres
- Proposed Primary School
- Proposed Secondary School
- Potential site for Secondary School
- Proposed Play Areas / Multi-use Games Area
- Proposed Allotment Gardens
- Proposed Waste Water Treatment
- Barrows
- Roman Villa
- Westenhanger Castle
- Westenhanger Station
- Woodland Burial
- Community Orchard
- Biodiversity Priority Area

4.1.2. Categorising Green Infrastructure

For the purposes of this report, a set of categories has been developed, based upon those used by Natural England and tailored to Otterpool Park, connecting with the requirements of the overall masterplan and with the F&HDC Local Plan.

Green Infrastructure has been categorised by typologies, assets and functions;

Typologies refer to the category, for example green open spaces, playing fields, woodlands, wetlands, grasslands, river and canal corridors, food production, private gardens, water management features, recreation corridors or architectural features.

Assets refers to the individual assets within the typology, for example, a typology of 'food production' may include assets such as allotments, community orchards, market gardens.

Functions set out the functional aspects of each typology/asset. For example, allotments may provide: education, visual interest, community cohesion, environmental awareness, health & well-being, vibrancy, wildlife habitat, water management/attenuation.

4.1.3. Green Infrastructure Typologies

The schedule on page 38, details the description, function, elements, scale and benefits of Green Infrastructure elements, organised within the principle types.

This aims to identify the key typologies that will make up the Green Infrastructure contribution (existing retained, and proposed), what assets are contained within them and the functions they will perform.

4.1.4. Green Infrastructure allocation

The outline planning application proposes to accommodate 8,500 homes across a total development area of approximately 589 Hectares (refer to development specification)

Parameter plans target approximately 50% of the total development area as Green infrastructure, aiming at around 312 hectares of space.

Examples of space allocated to Green Infrastructure , excluding farmland, are summarised below, all areas are approximate and in Hectares;

- Habitat* 160
- Sports playing fields 12
- General amenity 38
- Play space 6
- Strategic parks 16
- Allotments/orchards 10
- Cemeteries 3
- Mixed use suds 7
- Housing Suds 42
- Secondary school playing fields 10
- Primary school playing fields 8

* Ecological surveys which have informed the masterplan allocation and the list above, break down Habitat into more detail. They include types and species supported, assessments of impacts and alignment with relevant policy. This has formed the basis for determination of the potential for Biodiversity net gain on the site (Environmental Statement Appendix 7.21 Biodiversity Net Gain)

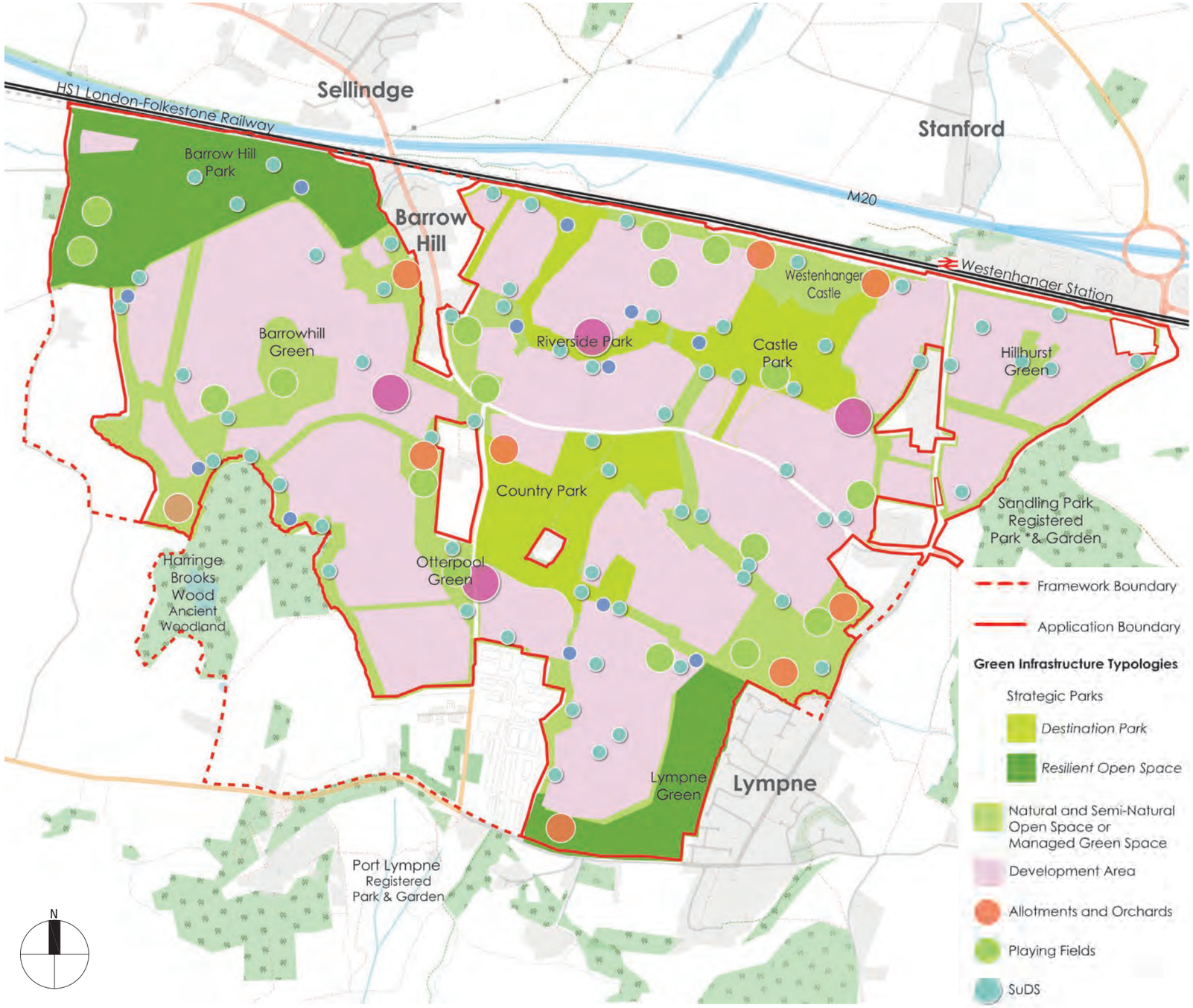


Figure 27: Principle Green Infrastructure Typologies

Green Infrastructure Typology	Description	Function	Elements	Scale	Benefit
1. Natural or Semi-Natural Open Space	1a. Hedgerow - field boundaries, property boundaries, highway boundaries	Biodiversity, visual integration, historic field pattern, landscape character, wind break	• Land ownership boundaries • Edges - paths and corridors	Local and Neighbourhood	• Value to nesting birds • Shelter for woodland birds • Shelter for flora and fauna including vertebrates, badgers, hedgehogs, reptiles and amphibians
	1b. Woodland/Copse Ancient Woodland/Scattered Tree Planting	Biodiversity, visual integration, landscape character, shelter, shade, wind break, carbon store	• Woodland planted areas • Woodland Edge Planting • Specimen Tree Planting	Neighbourhood and District	• Value to nesting birds • Shelter for woodland birds • Shelter for flora and fauna including vertebrates, badgers, hedgehogs, reptiles and amphibians
	1c. Grassland	Biodiversity, landscape character	• Agricultural fallow land • Open grassland • Verges and edges	Local, Neighbourhood and District	• Shelter for flora and fauna including vertebrates, badgers, hedgehogs, reptiles and amphibians • Pollinator provision
2. Managed Green Space	Publicly accessible open space managed by public or private regime	Recreational, walking, informal sports and play, dog walking	• Footpaths • Cycleways • Informal sports areas	Neighbourhood and District	• Connectivity • Health and Wellbeing • Eco System Services
3. Strategic Parks (Destination Park and Resilient Open Space)	Publicly accessible green open spaces with a project-wide catchment	Destination spaces accommodating a wide range of recreational and community activities such as cycleways and footways, formal and informal sports and play	• Footpaths • Cycleways • Formal and informal sports areas • Formal and informal play areas • Community event space	District	• Health and Wellbeing • Destination and Place Making • Character • Social Interaction • Education
4. Allotments and Orchards	Productive land, restricted access managed under Community Stewardship Strategy	Productive land allocated for the community growing of food	• Fencing and controlled access • Workable land • Fruit trees, vegetable etc.	Neighbourhood	• Health and Wellbeing • Social interaction • Resilience
5. Cemeteries	Controlled public access, privately or publicly managed green space	Allocated space for the accommodation of graves, tombs or funeral urns	• Footpaths and controlled entry points • Managed plots • Memorial gardens • Built structures	District	• Social value • Cultural • Health and Wellbeing
6. SuDS and Wetlands	Areas allocated within public open green space to accommodate drainage and flood attenuation	Open space contributing natural drainage to the overall water management system	• Engineering profile for drainage and attenuation of water	Neighbourhood	• Flood Management • Eco System Services • Resilience
7. Playing Fields	Publicly accessible privately and publicly managed physical recreation space, typically including sports fields and school playing fields	Open managed grassland for the purpose of formal sports	• Club houses • Changing rooms • Car park • Pitches and courts • Maintenance and storage areas	Neighbourhood	• Health and Wellbeing • Social Interaction • Community Cohesion

Figure 28: Green Infrastructure Typology Schedule

*Scale: ***Local*** (Private, semi-private spaces, gardens, streets) ***Neighbourhood*** (Parks) = ***District*** (Destination Parks)

4.1.5. Green Infrastructure hierarchy, structure and distribution

A series of proposed GI typologies have been set to distinguish the 'green' spatial components and hierarchy across Otterpool Park and have been measured to ensure GI is suitably balanced with the built development parcels.

A target figure of 50% GI [NE1] [PCM2] is anticipated which will include Blue Infrastructure and Sports facilities.

The GI typologies provide a useful means of measuring the various component of the masterplan and to ensure a healthy balance is achieved. Primary measurable GI types can be summarised as follows:

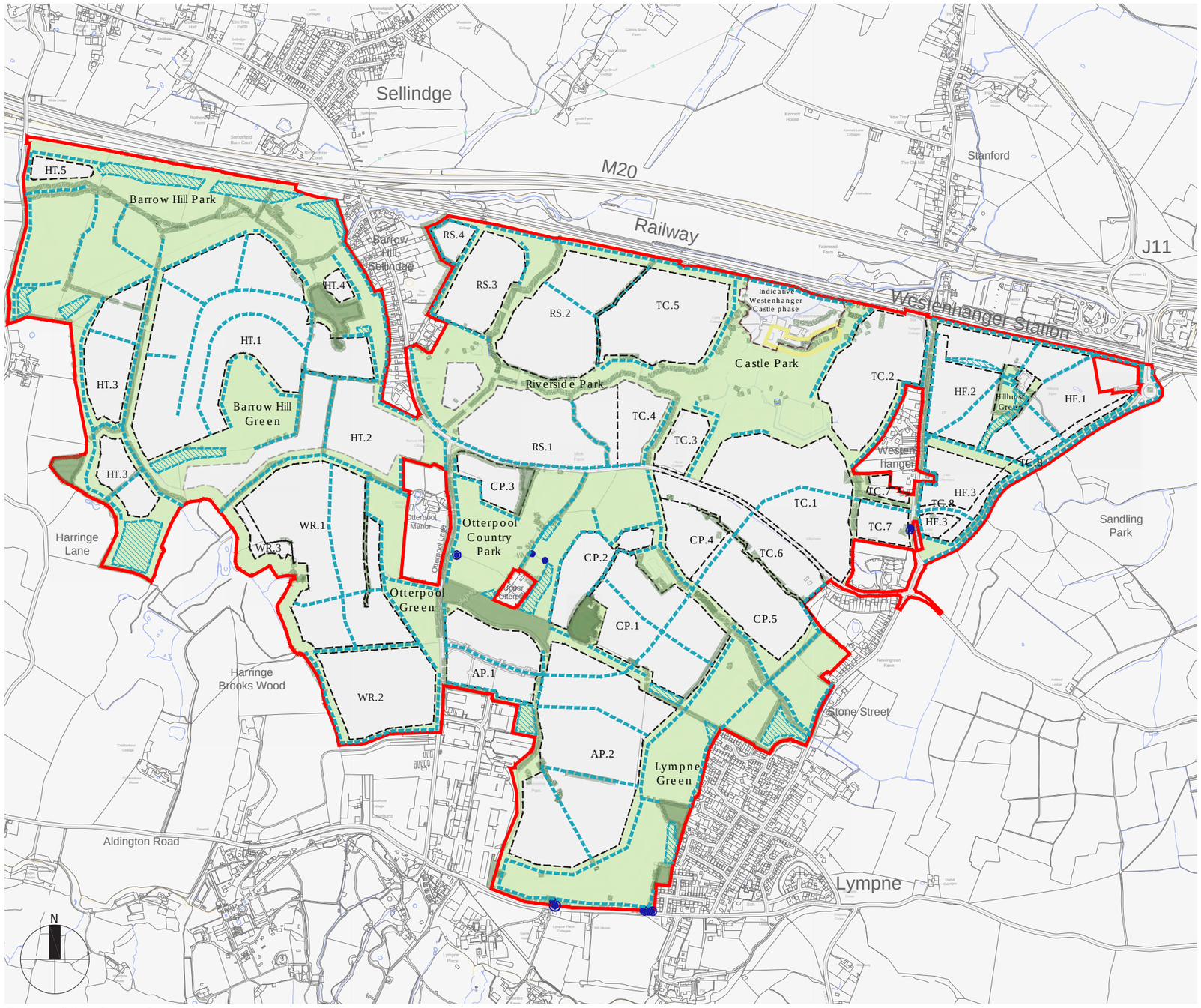
- Green Open Space;
- Formal Play;
- Food Production;
- Outdoor Sports.

Supporting GI types include but are not limited to:

- Areas of woodland;
- Nature play;
- Green Roofs;
- Heritage features.

The Open Space and Vegetation Parameter Plan, illustrated opposite, refines the hierarchy, structure and distribution of green infrastructure and open space across the site, including public realm and open space for leisure, sport and play.

Existing GI typologies including high value hedgerows / trees and woodlands have guided the placement of development parcels with a presumption towards vegetation retention where feasible.



Existing

Existing woodlands, trees, treebelts and hedgerows retained. This Parameter Plan shows where

Area in front of Westenhanger Castle with vegetation to be removed subject to further survey and Conservation Management Plan

Existing trees with TPO retained

Proposed areas of structural planting

Proposed rows of structural planting

Proposed

Proposed development areas

n.n Numbered key to reflect development areas in illustrative phasing plan

Proposed indicative Westenhanger Castle phase

The indicative Westenhanger Castle phase relates to an area of development will be the subject of future consideration/approval

Proposed open space

Application Red Line Boundary

Figure 29: Open Space and vegetation Parameter Plan

4.1.6. Green Infrastructure Contribution to Different Spaces

Applying the Doorstep to Countryside Approach

The following pages chart an imagined journey which tracks the contribution of Green Infrastructure, starting from Home and moving through the varying scales and types of space and finally moving out into the wider countryside.

1 Home
Food production (garden/balcony/ window box)
Formal play, Natural Play (recreation)
Green roof
SuDS (grey water harvesting)

2 Residential Street
Transport Corridor 'homezone', community street
Formal Play, Natural Play
SuDS Integrated SuDS drainage

3 Local Play
Formal Play, Natural Play
Green Open Space,
Amenity Grass
SuDS Integrated SuDS drainage

4 Footpath
Recreation Corridor (Street trees, hedgerow, verge),
Natural Play and recreation
SuDS Integrated SuDS drainage

5 Food Production
Productive Landscape (Allotments, community orchard)
SuDS Grey water harvesting

6 Green Corridor
Recreational Corridor, Development Buffer & Visual Screening, Hedgerow & Woodland Buffer Lane, Bridleway
SuDS integrated SuDS drainage

7 Primary Street A20
Transport Corridor
Street trees, Community and recreation
SuDS Integrated SuDS drainage

8 Local Centre
Public Square, Village Green or Hub
Green Open Space, Formal Play, Natural Play, Formal Sport, Food Production, community
SuDS Integrated SuDS drainage

9 Linear Park
Recreation Corridor, Formal Play, Natural Play, Green Open Space, Health and Wellbeing (trim trail)
SuDS Integrated SuDS drainage

10 Westenhanger Park
Green Open Space, Formal Sport, Formal & Natural Play, Development Buffer & Visual Screening, Hedgerow & Woodland Buffer recreation and play, habitat creation, community
SuDS Integrated SuDS drainage

11 Transition Space
Recreational Corridor, **Natural Play,** threshold to wider countryside, habitat enhancement, ecological corridor
SuDs Flood management

12 Wider landscape
Recreation, links to other settlements, informal play, habitat protection and enhancement

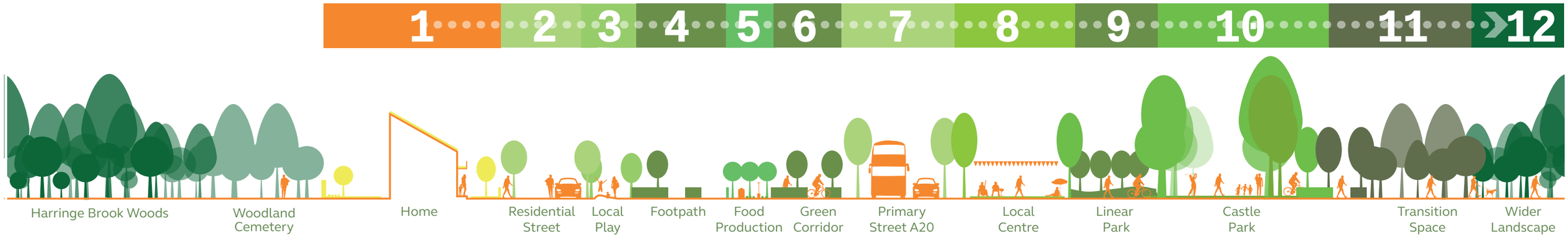


Figure 30: Transect - Doorstep to Countryside

Home

Food production (garden/balcony/ window box)
Formal play, Natural Play (recreation)
Green roof
SuDS (grey water harvesting)

Home

The philosophy aims to establish the potential contribution to spaces like; housing frontages, green roofs and back gardens, subject to sub plot division and plot set backs expected to be defined as part of a later, detailed phase of work.

Elements:

- Frontages - At a strategy level space between the corridor boundary and the build footprint presents an opportunity to incorporate green infrastructure and help create a soft zone between public and private space, benefits the resident mental well-being and contributing to water management strategy;
- Green roofs and window boxes - contribute to the establishment of a new local vernacular, sustainable building principles and energy efficiency. Small spaces like balconies, can become productive through the inclusion of simple planter boxes and can increase the feeling of privacy or add value to views out;
- Back Gardens - Where back gardens spaces are incorporated, these can contribute to allotment space for growing food and include green open space providing residents with usable outdoor space. In some cases, these spaces may face onto public parks and open spaces and presents an opportunity to increase points of connection between the private plots and the opens space network.

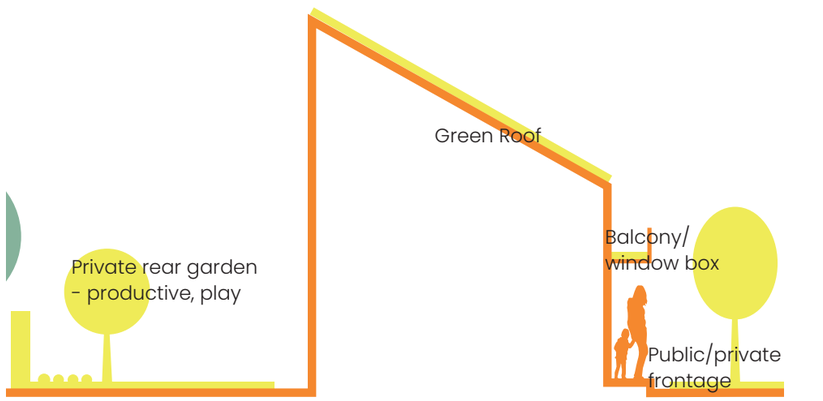
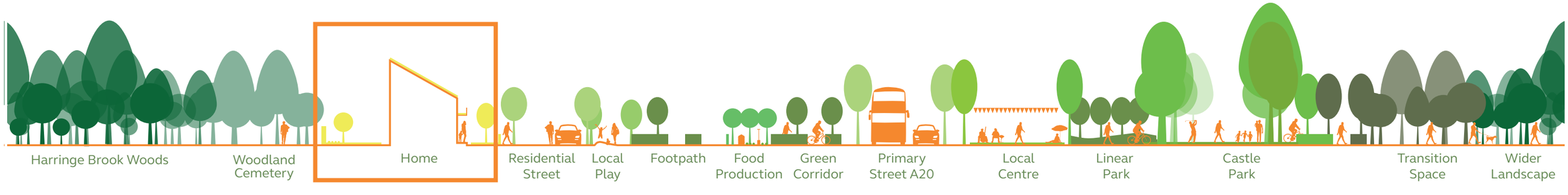


Figure 31: Images: Typical garden



Residential Street

Transport Corridor 'homezone',
community street
Formal Play, Natural Play
SuDS Integrated SuDS drainage

Residential Street

The approach to access and movement across the masterplan is captured in a separate connectivity strategy and is referred to in the Design and Access Statement.

The corridors created which support the movement network are considered here as linear spaces, to which there is a Green Infrastructure contribution, influencing character and function. The corridors incorporate formal footways and provide opportunity to connect with a cross cutting footpath network, helping support Otterpool Park as a walkable neighbourhood. The movement corridors also presents opportunity to highlight arrival points and formalise gateways, supporting a new vernacular in keeping and making the most of, the natural setting.

The residential street represents the initial point of connection from the doorstep to the countryside journey, interfacing with residential frontages, providing access to property and a navigable route onward destination. The intention is to use elements green infrastructure, such as street trees, rain gardens and green swales to characterise a people focused residential street that people are comfortable walking along, maintain a suitable public private threshold and contribute to sustainable drainage.

Elements:

- Vehicular carriageways are assumed as two way, footways on both sides;
- Where on street parking is appropriate, integrate with streets trees and planting;
- Consider the longer-term impact of social distance, footpath widths and pedestrian comfort;
- Consider the provision of green swales as a contribution to sustainable drainage, supporting water management strategy;
- Promote the use of wildflower, native and locally occurring species.

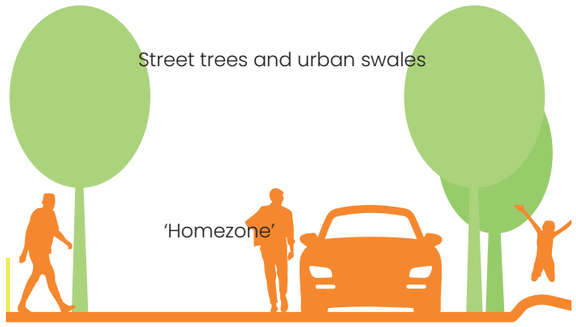
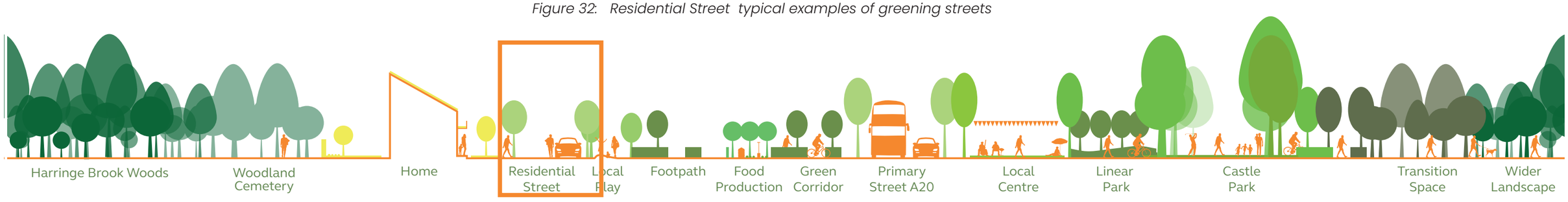


Figure 32: Residential Street typical examples of greening streets



Local Play

Formal Play, Natural Play
Green Open Space,
Amenity Grass
SuDS Integrated SuDS drainage

Play

The Green Infrastructure Strategy considers the contribution that elements of green infrastructure can make to creating a natural, diverse play offer, providing opportunities beyond physical recreation toward social exercise, education about nature as well as supporting interesting places in which to walk.

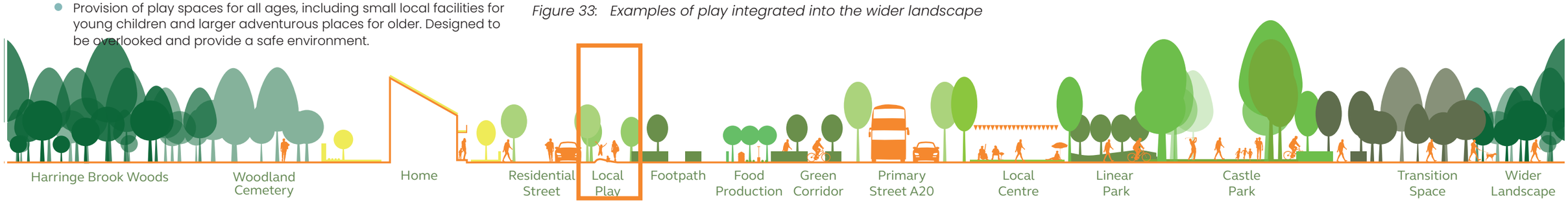
Providing opportunity for play supports the local community needs and can offer opportunities for social interaction, connecting residents from the surrounding neighbourhoods and villages. Play provision is intended to go beyond the offer of designated play spaces and is to include playful landscapes and routes for people of all ages and abilities.

The principle aim is to provide a combination of NEAPs LEAPs and LAPs within a walkable distance of local centres, reflecting the overall aspiration for Otterpool Park as a walkable neighbourhood. The masterplan captures the provision of formal play and the Design and Access Statement incorporates more detail around this aspect of the masterplan, supporting the planning application.

Elements:

- Maintain strong ecological links and water management with open spaces;
- Existing trees and woodlands help provide a framework and help enhance the natural setting of Otterpool;
- Woodlands and grasslands can help support outdoor classrooms, Forest Schools as well as supporting nature trails as a form of mental and physical exercise;
- Provision of ecotone zones between woodland areas to help maximise recreational space;
- Consideration of certain heritage assets as a contribution to recreational opportunity;
- Consideration of car free routes, linking green ways and footpaths, again supporting the idea of Otterpool Park as a walkable community;
- Consideration of view corridors, maximising opportunities on high ground and how the advance planting program can help enhance these ;
- Promote opportunities for informal leisure, walking, meeting and gathering in opens spaces;
- Provision of play spaces for all ages, including small local facilities for young children and larger adventurous places for older. Designed to be overlooked and provide a safe environment.

Figure 33: Examples of play integrated into the wider landscape



Footpath

Recreation Corridor (Street trees, hedgerow, verge),
Natural Play and recreation
SuDS Integrated SuDS drainage

Footpath

A network of formal footpaths and cycle routes will be integrated with streets and lit, hard surfaced paths will be provided to create direct access between communities and local centres, supporting the ten minute town and doorstep to countryside principles.

An additional network of leisure routes will provide routes with unlit rural paths, linked to surrounding footpaths and existing and proposed landscape assets.

Elements:

- Contribute to 'Ten Minute Town' by providing a movement network across Otterpool Park;
- Street trees contribute to biodiversity and character;
- Water management achieved through integrated SuDS drainage;
- Easy movement supporting the 'Doorstep to Countryside' principle, linking the Green Infrastructure network.

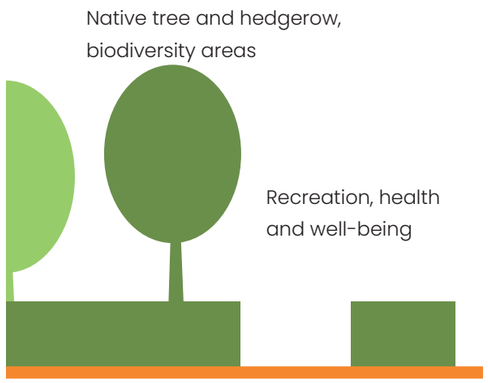
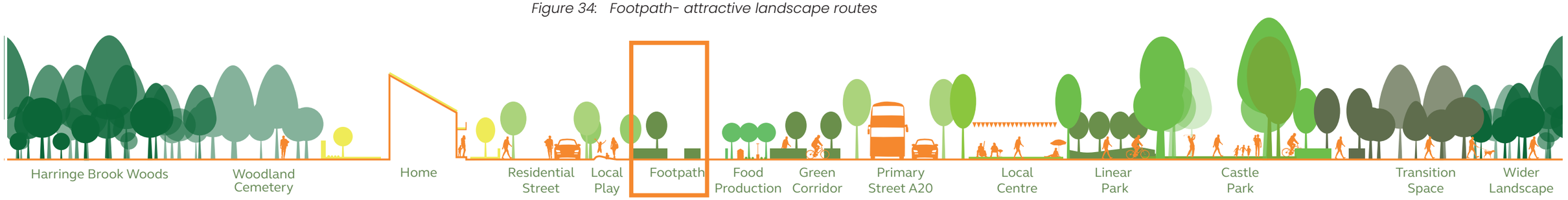


Figure 34: Footpath- attractive landscape routes



Food Production

Productive Landscape
(Allotments, community orchard
SuDS Grey water harvesting

Food Production

Productive landscapes provide the local community opportunity to play an active role in small scale growing projects. The general aim is to provide the community with the opportunity to grow fresh produce and care for land through traditional allotments, sited within walking distances of people's homes, supporting community stewardship, helping build a sense of ownership, stimulating social interaction, benefiting health and well-being.

Where possible, the inclusion of Community Orchards would link with historic land uses, provide residents with opportunities for fruiting trees and contribute to biodiversity and wildlife (refer to Ecology and biodiversity net gain strategies).

Elements:

- Contributes to policy requirements for community space;
- Distributed proportionally across the site, aimed to be within walking distance of neighbourhoods and local centres connected with a network of footpaths, bridle and cycle ways;
- Considered as part of a connected network of public open spaces;
- Existing trees and woodland, supported by the advance planting program to contribute to the natural setting for productive spaces - for example following permaculture and forest gardening principles;
- Ecological features and water management incorporated where appropriate and beneficial;
- Emphasis Otterpool as a walkable neighbourhood, vehicular access provides for servicing;
- Areas tested and cleared for contamination prior to final allocation.

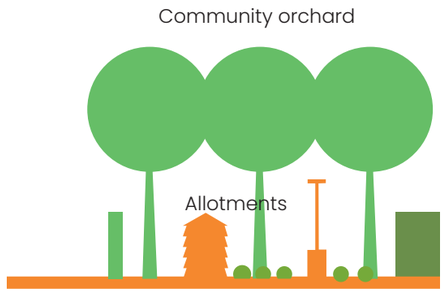
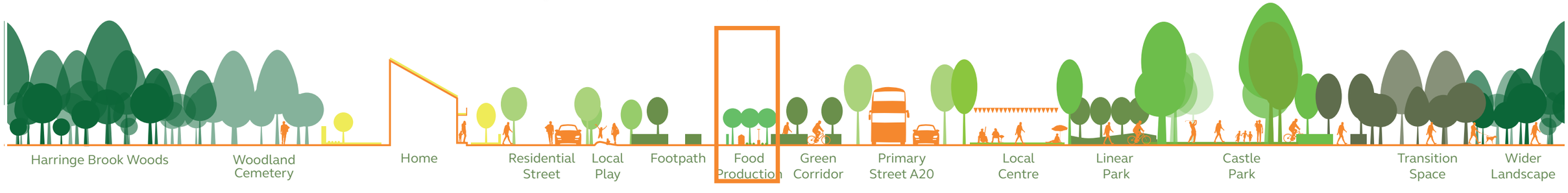


Figure 35: Food Production examples



Green Corridor

Recreational Corridor, Development Buffer & Visual Screening, Hedgerow & Woodland Buffer Lane, Bridleway
SuDS integrated SuDS drainage

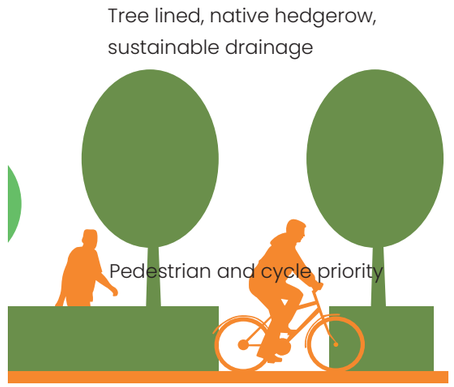
Green Corridor

This represents linear green infrastructure elements within Otterpool Park where human activity is appropriate and encouraged and may be shared with, but is not exclusive to, the wildlife.

Green corridors or 'Greenways' also provide an important leisure resource to the future population. They include ecological areas and water management that contribute to offsetting the effects of development and also have a recreation and open space function and value: specifically, they can provide an activity 'bridge' (e.g. perimeter trim trails) allowing all but particularly younger residents to pursue an active and healthy lifestyle instead of, or supplementing formal sports and recreation. This is offered as 'semi-formal space' since it provides facilities designed specifically to promote this active lifestyle as an alternative to formal sports or as a bridge to them.

Elements:

- The informal greenways are mainly characterised by retained tree groups and preservation of existing ecology (e.g. badger setts and runs, toads, bat roosting, retained ponds);
- They will accommodate spaces for seating, areas for education and informal play;.
- Greenways would also make provision for Neighbourhood Equipped Area of Play (NEAP) and Local Equipped Areas of Play (LEAPs);
- Water management achieved through integrated SuDS drainage.



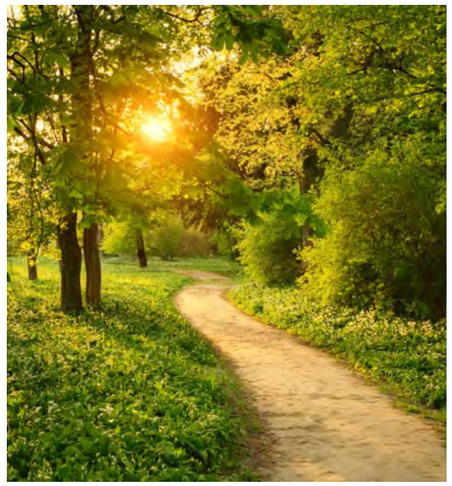
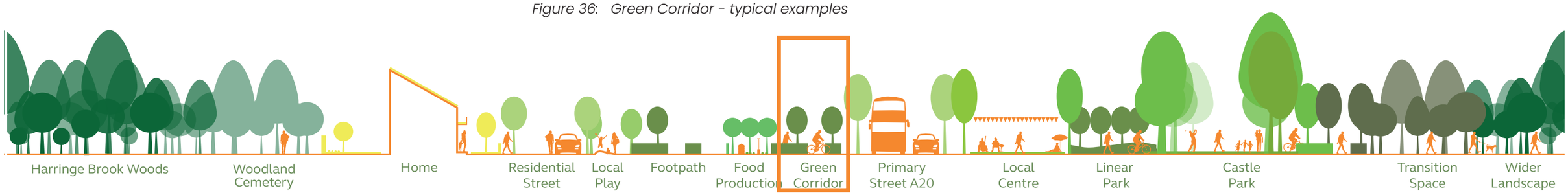


Figure 36: Green Corridor - typical examples



Primary Street

Transport Corridor

Street trees, Community and recreation

SuDS Integrated SuDS drainage

Primary Street

The distribution road corridor supports movement between principle destinations while connecting the various neighbours and links with the wider movement network. The vehicular usage on these routes is anticipated as higher than that of the residential streets, but these corridors are also expected to integrate cycle routes and footways as part of an overall connected network. The principal corridor, in some cases, also incorporates bus routes and bus only routes, supporting the public transport offer as part of the master plan.

Street trees and green swales are again envisaged as elements that are appropriate to help provide a degree of pedestrian comfort, particularly along sections that accommodate cyclists as well as those that help connect green ways and public footpaths

Elements:

- Vehicular carriageways are assumed as two way, with the potential for footpaths on at least one side;
- On street parking would be restricted to certain urban areas, street trees will be incorporated where possible;
- Consider the longer-term impact of social distance, footpath widths and pedestrian comfort;
- Consider the provision of green swales as a contribution to sustainable drainage, supporting water management strategy;
- To achieve a 'green' character and assist with orientation;
- Promote the use of wildflower, native and locally occurring species;
- Creation of attractive, humane streets that use planting to add visual interest;
- Street trees and planting to help mitigate air/noise pollution and provide shade
- Provide space for lingering and space for outdoor tables at cafés in appropriate locations;

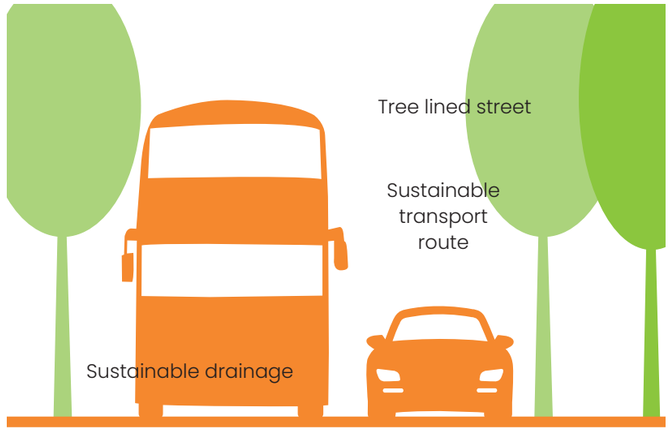
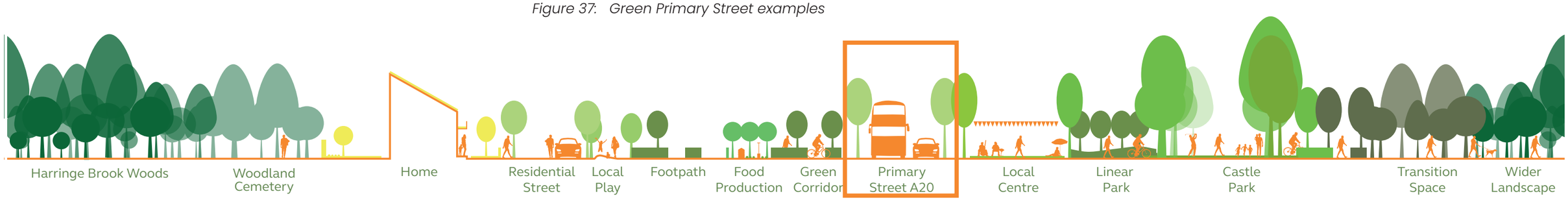


Figure 37: Green Primary Street examples



Local Centre

Public Square, Village Green or Hub
Green Open Space, Formal Play, Natural Play,
Formal Sport, Food Production, community
SuDS Integrated SuDS drainage

Local Centre

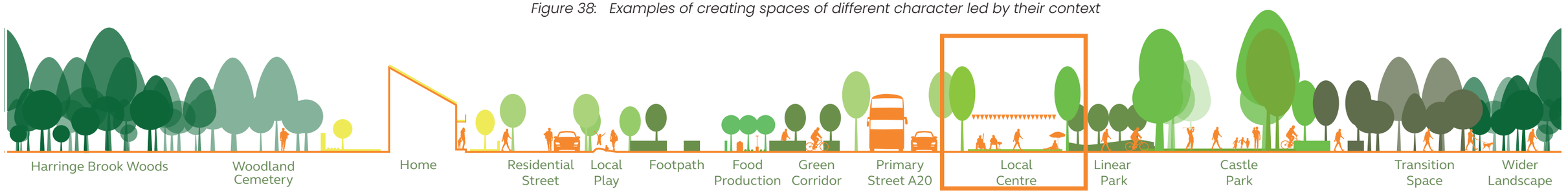
The spatial plan for Otterpool Park is focused around the creation of three strategic destination spaces and the location of principle local centres, providing local amenity and services. Green infrastructure contributes to the distinct character of these Local centres, helping differentiate neighbourhoods and commercial areas, assisting legibility and aiding natural navigation.

Green Infrastructure elements also benefit walking and cycling routes, helping create green corridors that link the various green assets (parks, play areas, allotments, sports etc.), communities and local centres to homes and to each other, promoting walking and cycling as an alternative to driving. Leisure routes will link into the wider landscape, connecting existing footpaths and bridleways, providing opportunities to access the amenity provided by surrounding assets such as the Kent Downs AONB and further afield to the coast.

Elements:

- Sustainable walkable neighbourhood centres linked through a network of footpaths, open spaces and cycle routes, connecting residential communities to service and amenities;
- Provision of green infrastructure within the town centre, including productive spaces, like orchards and allotments;
- Places for communities to meet including play areas and gathering spaces outside schools, central squares and greens;
- Green spaces with the secondary schools located in accessible locations close to the bus route, walking and cycling network and with playing fields forming part of the green space;
- Centres will be at optimum distances apart from each other to create walkable neighbourhoods whilst providing critical mass and footfall for the viability of commercial uses with variety and distinctiveness;
- These routes will link into the existing footpaths and footways within the site, which will be upgraded as appropriate to form an integral element to support the Strategy;
- Architecture with active frontages to engage with spaces and create vibrancy.

Figure 38: Examples of creating spaces of different character led by their context



Linear Park

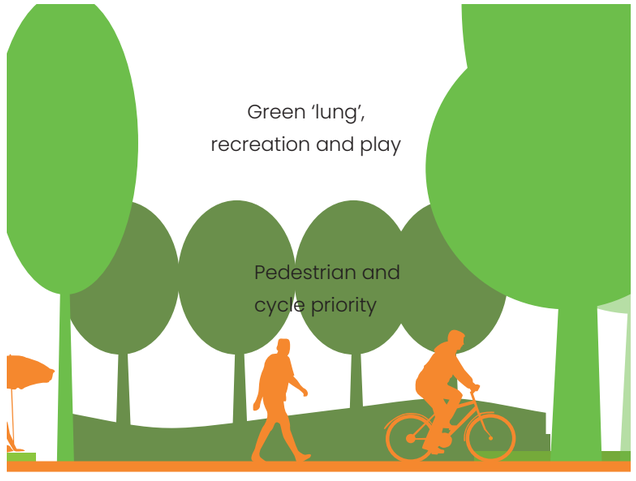
Recreation Corridor, Formal Play, Natural Play, Green Open Space, Health and Wellbeing (trim trail)
SuDS Integrated SuDS drainage

Linear Park

Linear green spaces which create an off-road route between local centres or communities, supporting movement, recreation and play and providing amenity and biodiversity value. An opportunity for wildlife corridors to meet pedestrian and cycle movement corridors in a symbiotic space

Elements:

- Alternative route to roads through green space;
- Pedestrian and Cyclist priority;
- Linking areas of green infrastructure, local centres and communities;
- Supports recreational activity such as running routes and trim trails; as well as providing habitat and wildlife movement corridors;
- Water management achieved through integrated SuDS drainage.



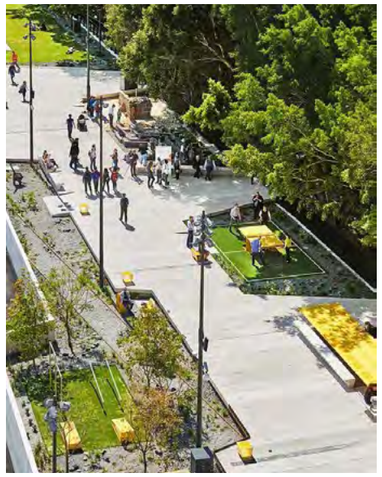
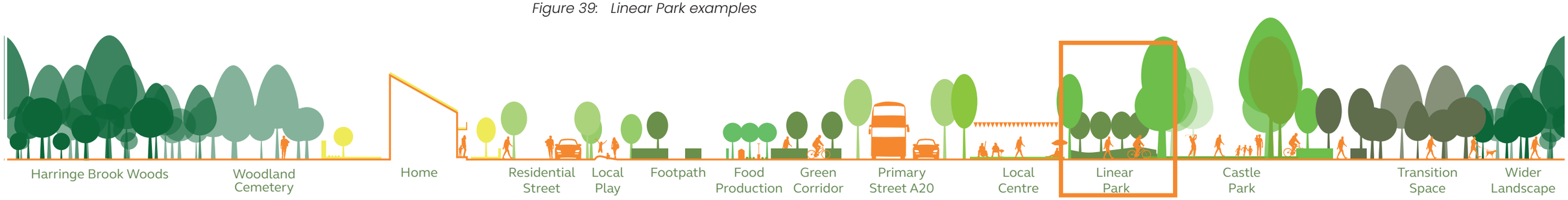


Figure 39: Linear Park examples



Destination Park - Riverside Park, Country Park & Westenhanger Castle Park

Green Open Space, Formal Sport, Formal
Play Natural Play recreation and play
habitat creation, community
SuDS Integrated SuDS drainage

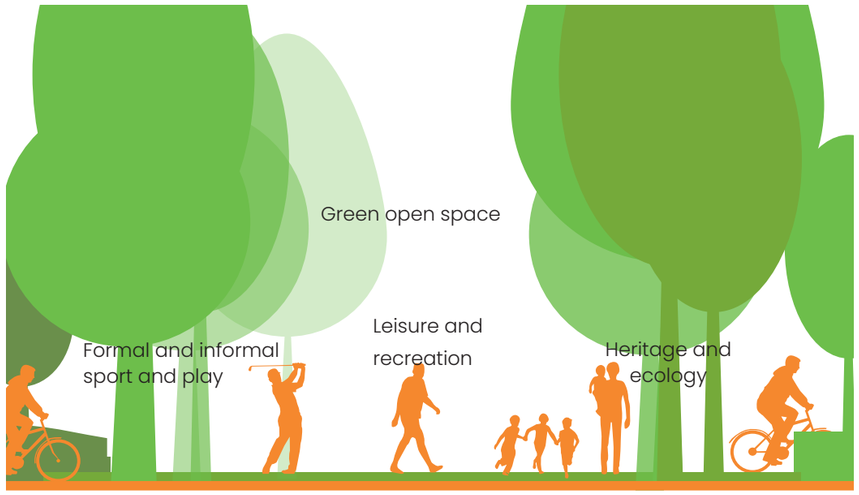
Destination Park

Otterpool Park has three destination parks, each with their own character: Castle Park, Riverside Park and Otterpool Country Park and these are described in more detail in the Key Strategic Spaces section

Acting as a focal point for the community, the parks are intended to provide amenity within walkable distances of residential neighbourhoods and form part of an interconnected network of footways and opens spaces, contributing to the 'doorstep to countryside' Green Infrastructure philosophy

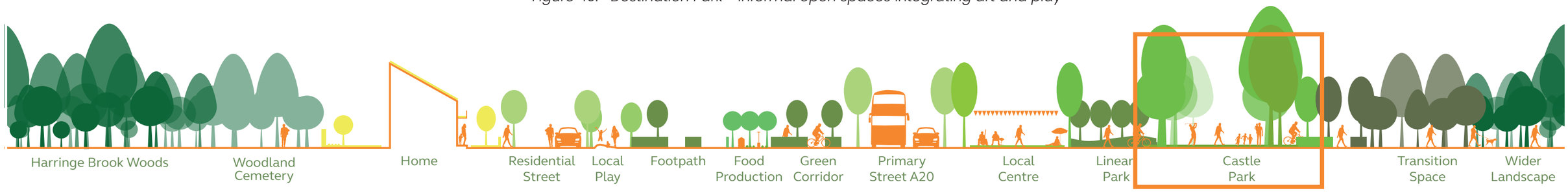
Principle Elements:

- The destination parks will all be natural green spaces, that will differ in character relevant to the proximity to historic and naturally occurring features;
- Enhanced existing ecosystems, driving ecosystem services benefits and linking with improved connections to increase access to those benefits;
- Improve connections and awareness of existing destinations and heritage assets to support the development of a walkable neighbourhood, promoting health and well-being.



Through a Landscape and Green Infrastructure led masterplanning approach, the strategy is aimed at creating an exemplar connected community, linking places where people live, through green corridors and a network of strategic destination green spaces out into the wider countryside in the surrounding region.

Figure 40: Destination Park - informal open spaces integrating art and play



Riverside Park

Recreational Corridor, **Natural Play,**
threshold to wider countryside, habitat enhancement,
ecological corridor
SuDs Flood management

Riverside Park

The riverside landscape next to the East Stour will provide flood and habitat mitigation as well as a linear park. Wetland margins will provide opportunities for amenity, recreation and food growing.

It provides an attractive setting for homes overlooking the river and experience its changing character as it transitions from urban to connecting to the wider countryside to the west

Principle Elements:

- Public access, recreation and play;
- Flood alleviation;
- Enhanced ecological value;
- Health and well-being;
- Water treatment.

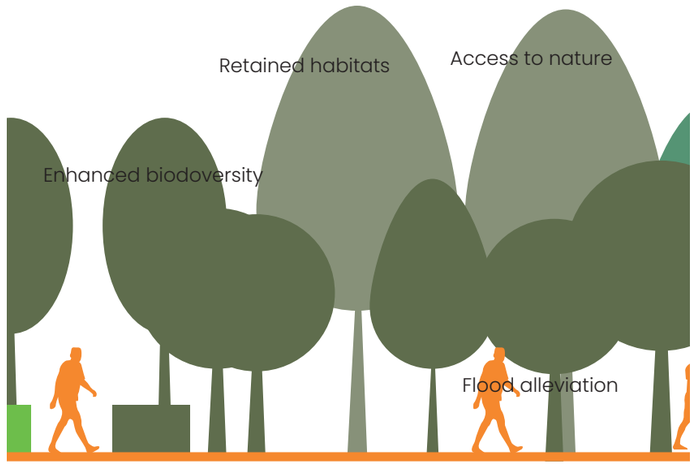
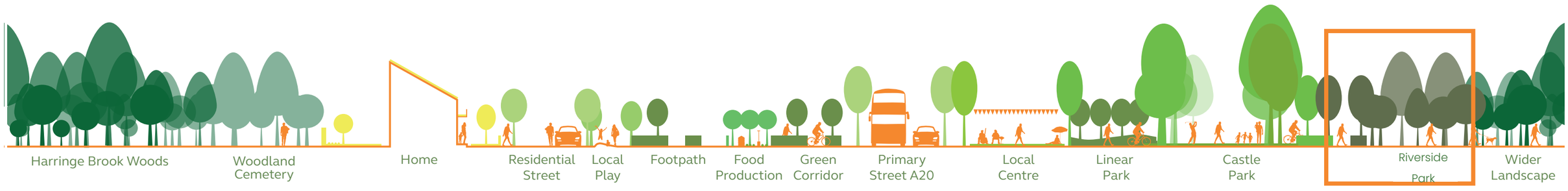


Figure 41: River Corridor and woodlands along the River Stour

Figure 42: Bath Western Riverside - Alison Brooks Architects
(source: https://www.alisonbrooksarchitects.com/project/bath-western-riverside/Images: wider countryside)



Wider landscape

Recreation, links to other settlements, informal play, habitat protection and enhancement

Wider landscape

Connecting Otterpool Park with its surroundings, is achieved by providing access through a network of footpaths and bridleways and through orientation and wayfinding, improving awareness.

The green infrastructure vision of doorstep to countryside is realised through the experience of transitioning through a palette of varying green infrastructure types to link eventually to the wider countryside.

The benefits of easy access to the countryside include improved health and well-being, educational benefits and opportunities to engage people with the natural and historic local landscape

Elements:

- Experience of ancient woodland and local heritage assets;
- Direct access to open countryside;
- Links to existing public rights of way and the wider footpath network;
- Sustainable movement links to surrounding communities.

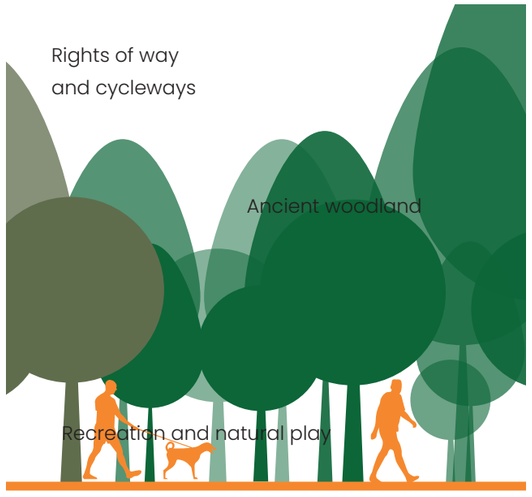
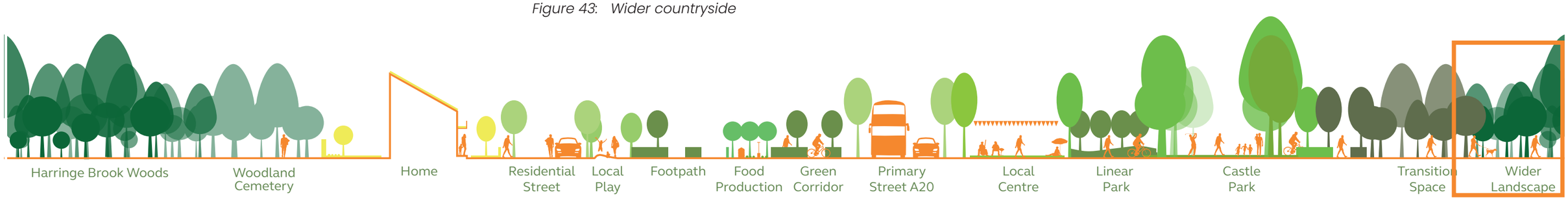


Figure 43: Wider countryside



4.2 Landscape

4.2.1. Utilising the Distinct Topography of the area

The master plan site sits on the slopes between the Greensand Ridge and North Downs Escarpment, within the Vale of Holmesdale, allowing for expansive views across the landscape to the South. Within the site boundaries there are a series of ridges and valleys that create more prominent areas of the site. Through consideration of the landscape form, open spaces and vegetation will be introduced to help define views into, out of and within the master plan and integrate the settlement into its surroundings, in particular the impact on the setting of the AONB.

1 **View across the Vale of Holmesdale to the North Downs**
View from Harringe Lane and public footpath HE325 across the Vale of Holmesdale to a broad expanse of the escarpment of the North Downs - from Brabourne Down to Summerhouse Hill.

2 **View across agricultural land to the North Downs Escarpment**
View from north end of Otterpool Lane and public footpath HE315 across open agricultural land to the North Downs escarpment - from Brabourne Down to Tolsford Hill.

3 **View to the North Downs Escarpment**
View from Otterpool Lane and the entrance to the Port Lympne Animal Park to the escarpment of the North Downs - from Broad Down to Brabourne Down.

4 **View along the Historic Causeway to the North Downs Escarpment**
View along the historic causeway of Westenhanger Castle from the A20, with the escarpment of the North Downs upon the horizon.

5 **Glimpsed views of the North Downs escarpment**
View across the open space of the old Lympne Airfield, high upon the greensand ridge, with glimpses of the North Downs escarpment in the distance.

6 **Glimpsed distant views of the North Downs escarpment**
View from public footpath HE313 across open farmland to Newingreen and the edge of Sandling Park, with glimpses of the North Downs escarpment in the distance.

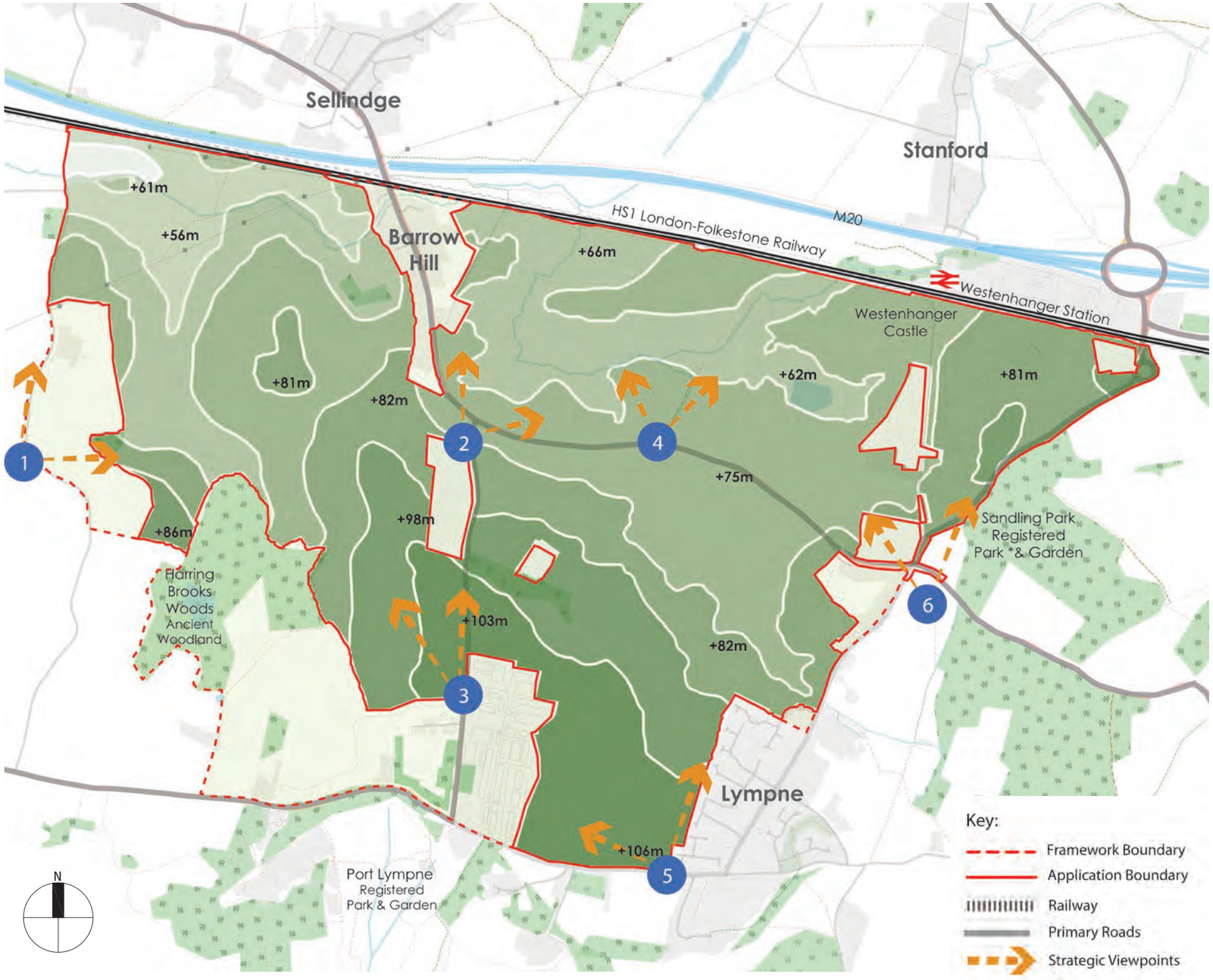


Figure 44: Site Topography and significant views

Principle 4: Create Strategic Open Spaces

Principle 7: Positive Planting

Principle 8: Green Infrastructure at all Scales

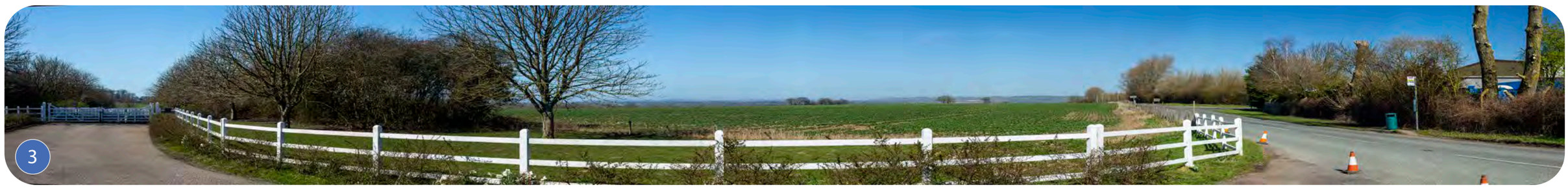
4.2.2. Significant Views

Views of the development from the Kent Downs AONB are a key consideration of proposals and retaining views back to the North Downs escarpment from within and areas surrounding the site.

The existing topography will be utilised to integrate the new settlement to best effect, with mitigation (landscape offsets, for example) being used to ensure the new settlement sits well within the local landscape.

Building design will incorporate measures that maximise their integration with the landscape. Possibilities include the use of earth sheltering for public buildings and green roofs on homes. PV, if used would be oriented south, therefore having limited/no visibility in views from the AONB in the north.

Please see plan on previous page for location of viewpoints.



4.2.3. Landscape Connections

A key consideration for the masterplan development was the opportunity to strengthen the landscape connectivity of the site.

This can be achieved through the retention of existing and creation of new green corridors supporting cycle and pedestrian movement as well as linking wildlife corridors and habitat areas. This is supported by plugging into the local and national trails and cycle routes beyond.

These factors were considered as part of development of early landscape strategies, illustrated in Figure 45.

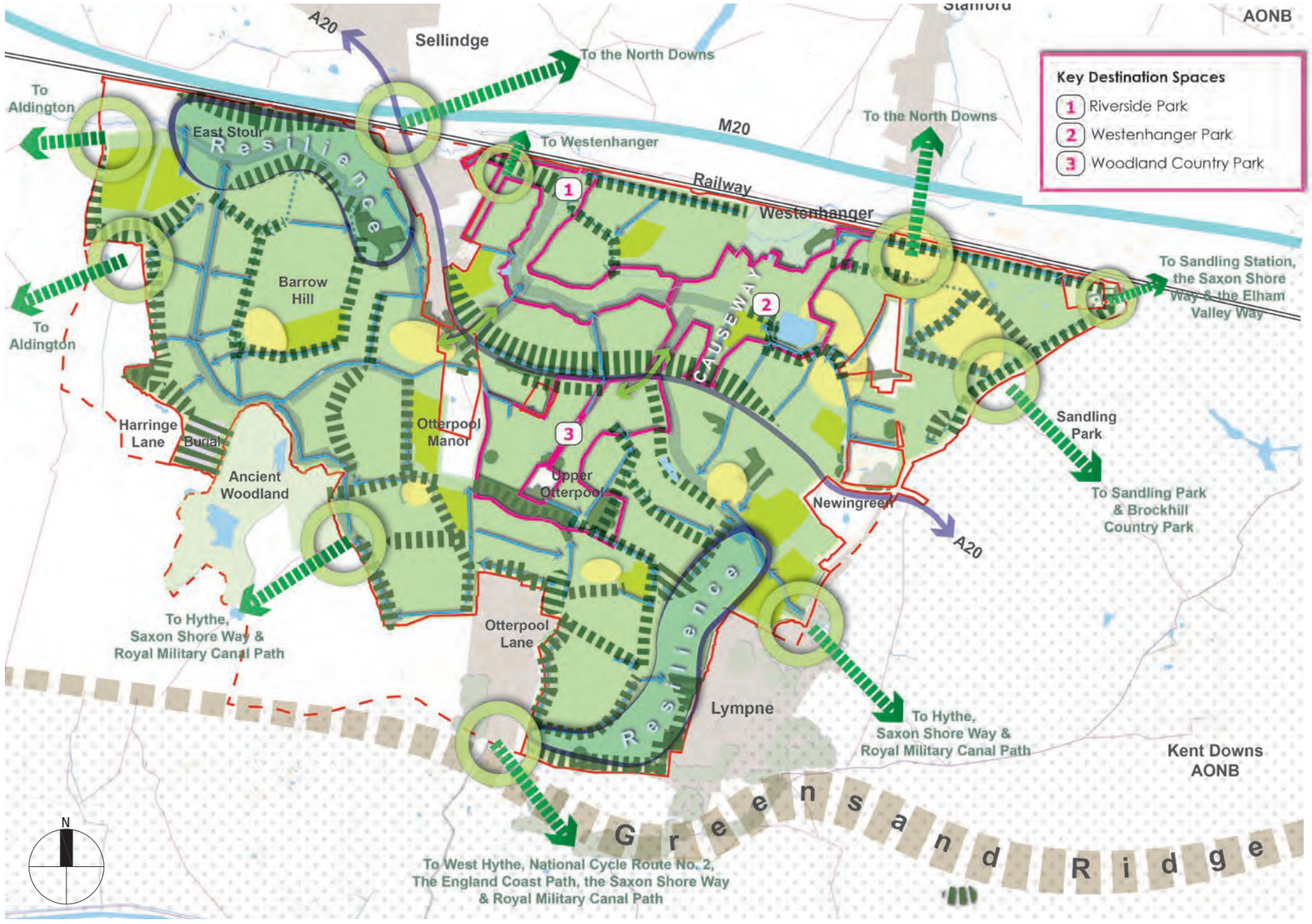
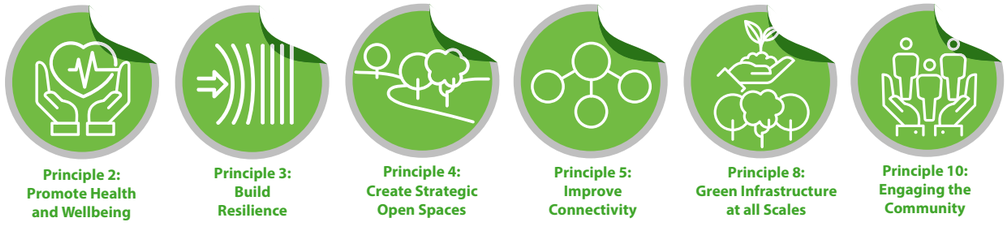


Figure 45: Initial Landscape Strategy focused on green connections, access to open space and protecting local views



4.3 Ecology

4.3.1. Habitat Priority areas

The assessments provided in the Biodiversity chapter of the Environmental Statement, conclude that there are limited priority habitats on the Otterpool Park site.

Surrounding the site are areas of priority habitat; largely Ancient Woodland (Harringe Brooks Woods and Sandling Park) with other priority habitats associated with Lympne Escarpment

The Biodiversity chapter in the Environmental Statement references Kent Biodiversity Strategy (Ref. 7 47) which supersedes the Kent BAP.

Priority habitats and BOAs (Appendix 6.6) have been transposed into Kent Biodiversity Strategy, however these species are still relevant and reflects the UK BAP. Conservation and enhancement of biological diversity in Kent and references to Species and Habitats on this list are covered in more detail as part of the Environmental Statement Section 7 on Biodiversity.

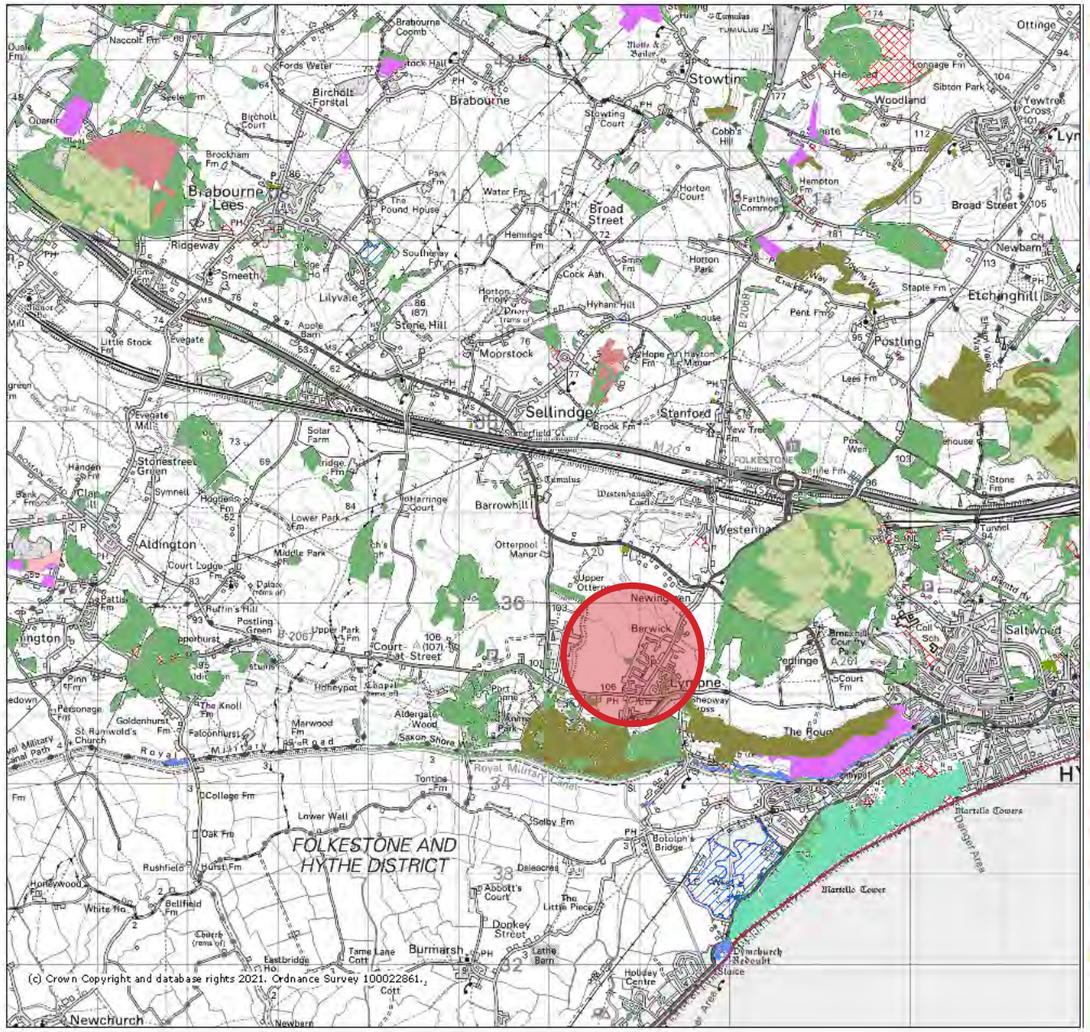


Figure 46: Habitat Priority areas map extracted from DERFRA's Magic Mapping

4.3.2. Statutory designations

Referring to the designation reviews (Environmental Statement Chapter 7 Table 7-10, 7-11, 7-12 and Appendix 7.1, figures 1 , 2 and 3) key designations, in the immediate vicinity of the site called out as having value, are summarised below;

Lympne escarpment (SSSI) contains grassland that are among the best remaining examples of semi-natural habitats on ragstone in Kent. Wet ash-maple is the predominant woodland type with a small area of calcareous ash-wych elm wood. Many plants usually associated with chalk soils occur in the grassland. The south-facing slope is close to the sea and the resulting mild humid conditions encourages the growth of ferns and mosses. The area has potential value but is not easily accessible, mostly located within private. Land.

Sandling park (LWS) Local Wildlife Site is located approximately 1km from the site and was not therefore assessed fully, although the area is connected to the site by green corridors.

Otterpool Quarry (SSSI Geological) This quarry shows the finest section through the Cretaceous Hythe Beds in East Kent and is of significance in showing the contact between this formation and the Sandgate Beds above.

Harringe Brooks Wood (LWS) is located along the South Western boundary of the site but is not publicly accessible.

Looking forward

Building upon the findings from the Biodiversity reporting on habitat priority and designated areas, the Green Infrastructure strategy would aim to support improved connections between these habitats. Where possible, the design of the development will aim to retain all areas of priority habitat.

Looking forward the Environmental Statement notes measures to safeguard designated sites employed these have been incorporated into the connectivity for wildlife within the site where possible.

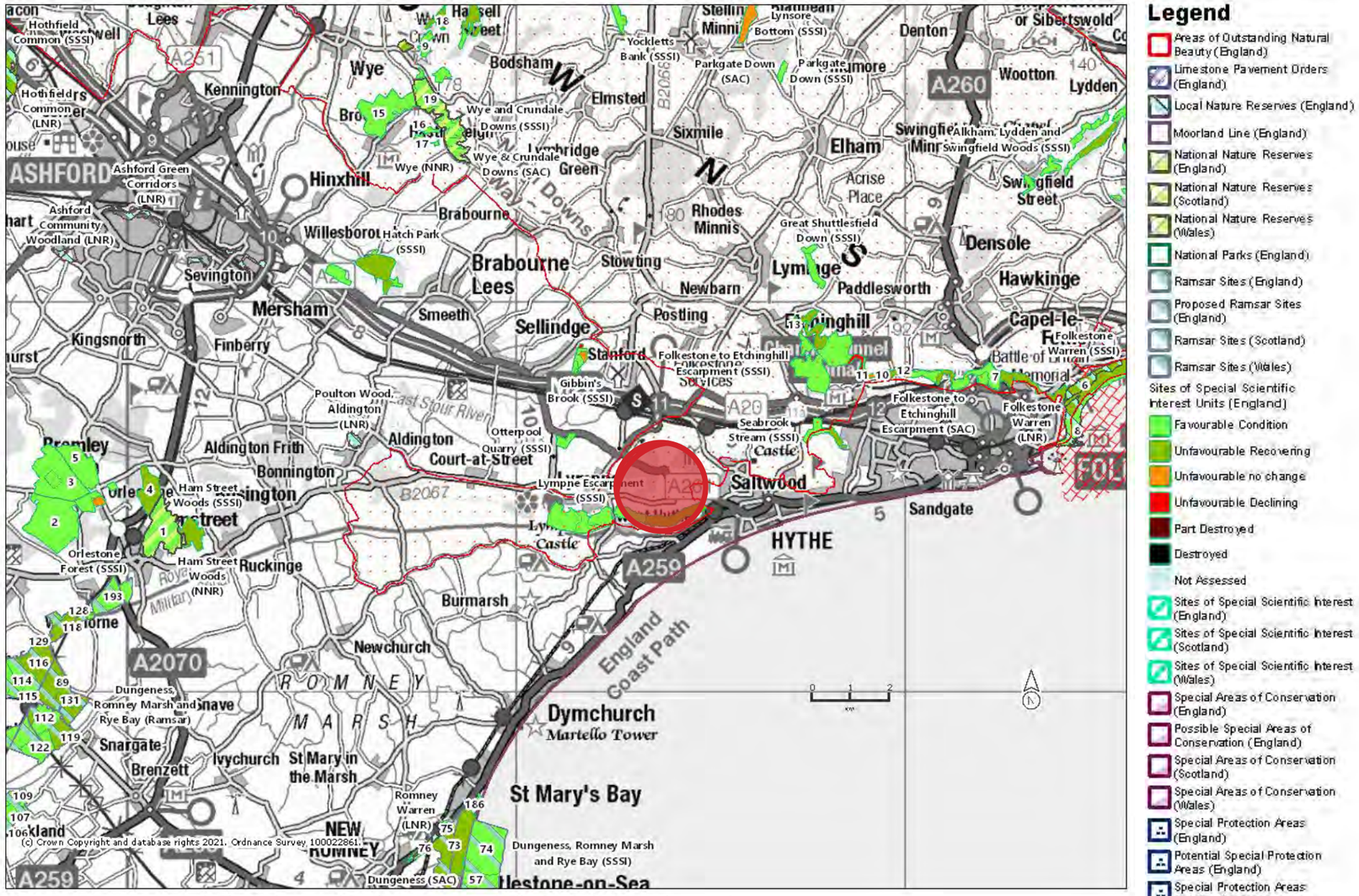


Figure 47: Statutory designations, taken from DEFRAs online Magic Mapping tool

4.3.3. Ecology and Semi Natural areas

Otterpool Park will celebrate biodiversity. The design will retain and enhance habitats including hedgerows, the River Stour and tributaries, broad-leaved semi natural woodland, trees, grassland and ponds. Retention of these habitats, design in their vicinity and the introduction of new and supporting habitat will ensure that the land continues to support many notable species.

Ecological surveys have concluded covering the various species on site to date including Kingfisher, Water Vole, Bats, Turtle dove, Badger, common reptiles including Slow worm, Grass Snake and Common Lizard, Cinnabar Moth, Dragonflies and Great Crested Newt.

4.3.4. Biodiversity net gain

The Environmental Statement, which supports the outline Planning Application for Otterpool Park, contains details of the Biodiversity Net Gain assessment, carried out to inform an Environmental Impact Assessment (EIA) The details of the report explain the methodology for demonstrating how the outline application can achieve biodiversity net gain (in line with planning policies) including how different types of Green Infrastructure are assessed.

Whilst Otterpool Park aims to achieve certain gains through open space allocation, maintaining green Infrastructure and introducing structure planting, targets are not specified in policy.

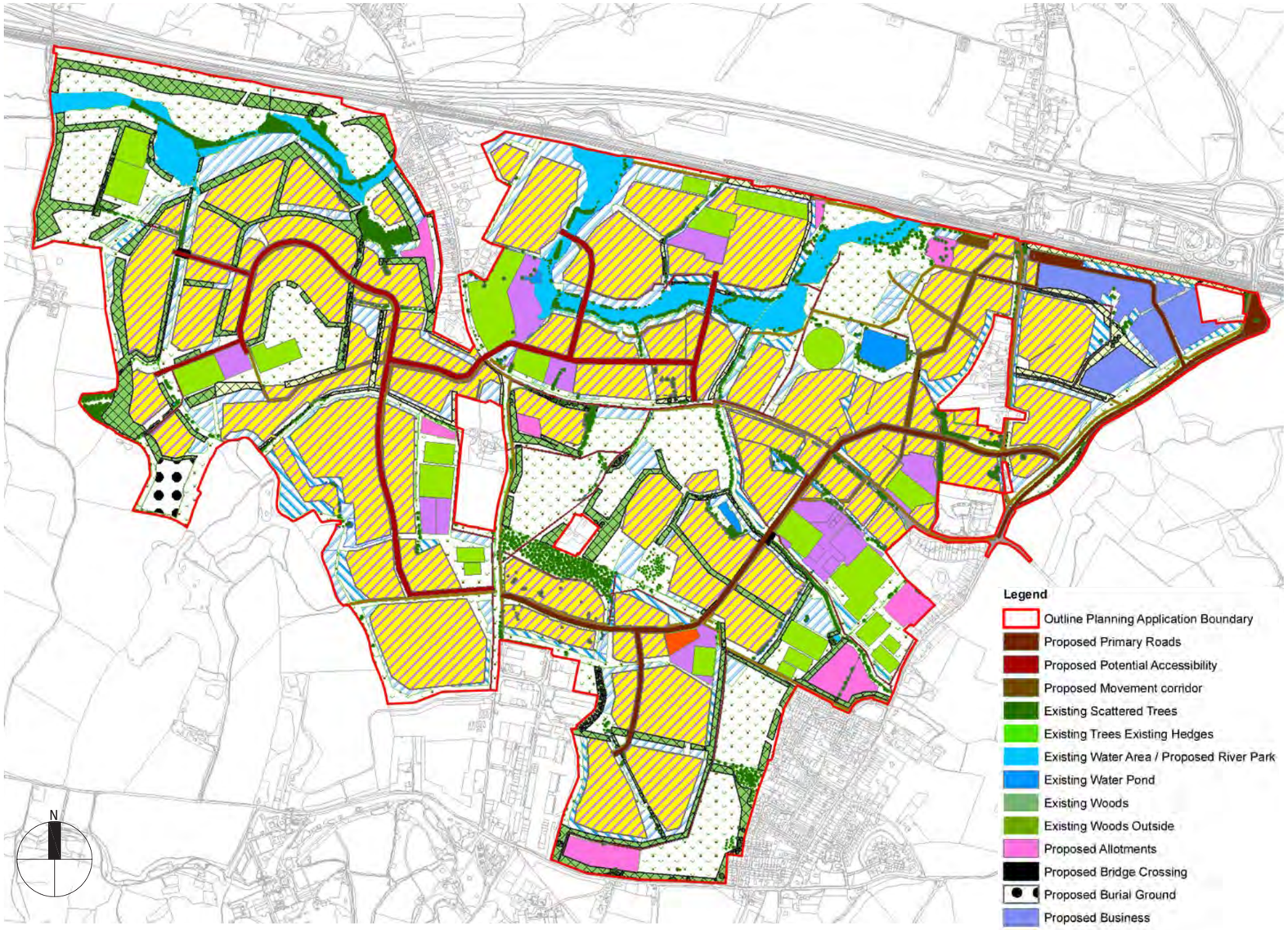
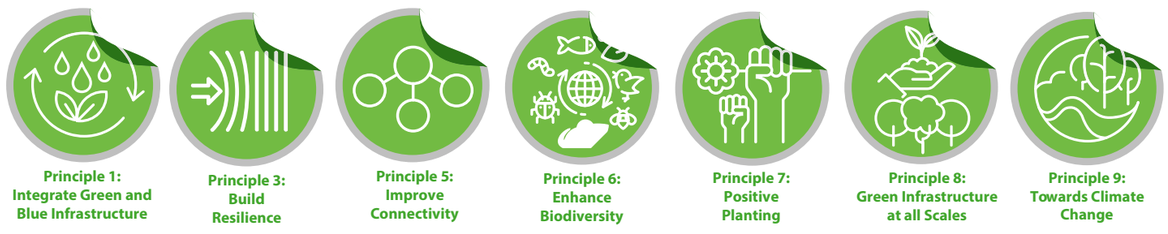


Figure 48: Biodiversity Calculation



4.3.5. Net Gain Targeting

Focusing on the conclusions of the assessment, the amount of Green Infrastructure provided contributes to Otterpool Park's potential to achieve a **Biodiversity Net Gain overall of approximately 20%.** This can be achieved by:

- Ensuring the development avoids the most valuable areas;
- Buffering features such as the river corridor and woodlands in appropriate, high quality habitats;
- Creation of new areas of valuable habitat, including wetlands, ponds, areas of tree planting etc.;
- Maximisation of the ecological value of the built development areas; and
- Inclusion of **approximately 50% Green Infrastructure** within the development.

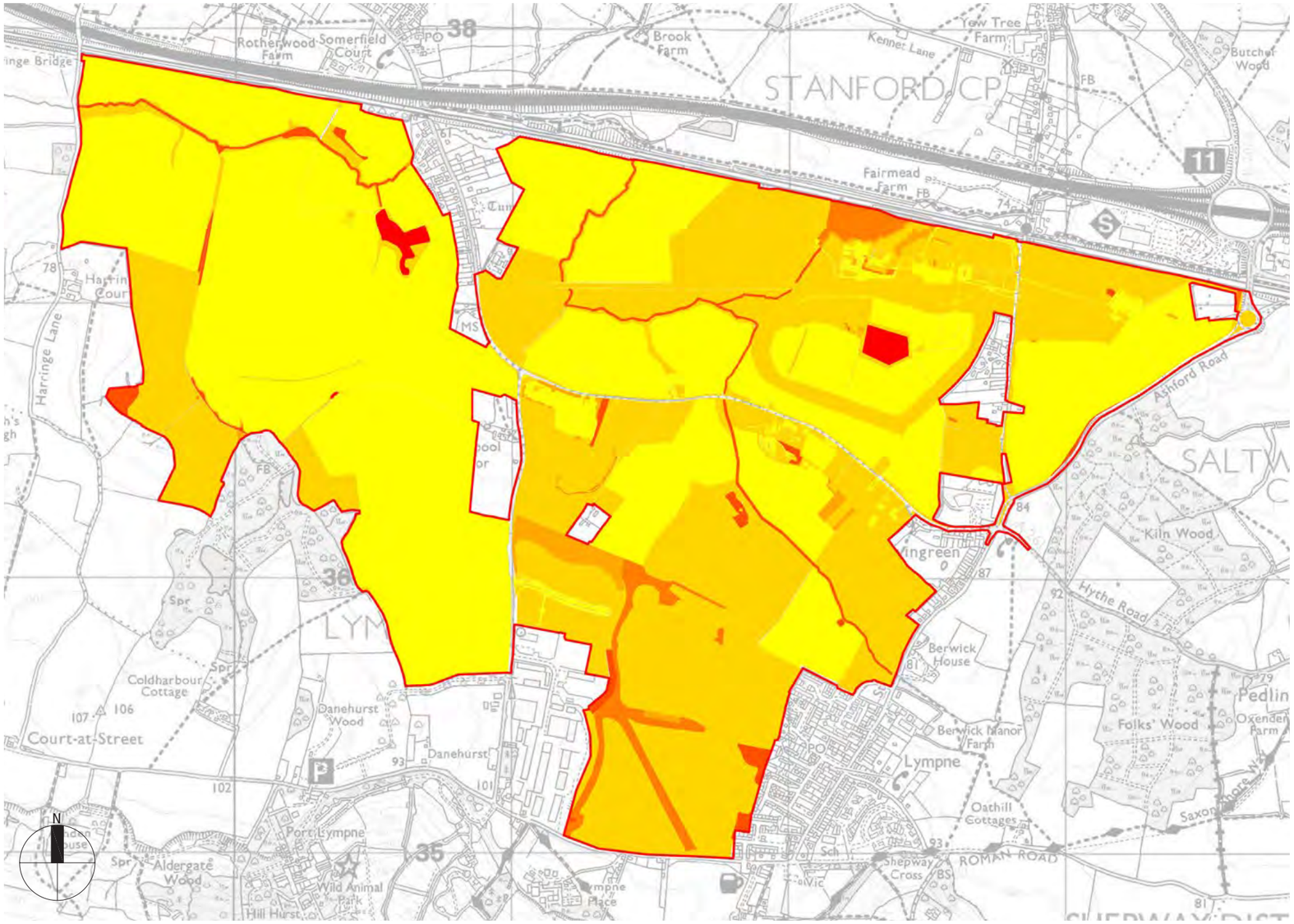


Figure 49: Baseline Habitat Evaluation before development