

PS17



Dover District Council

Green Infrastructure Strategy

January 2014

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Executive Summary

Green Infrastructure (GI) describes the environment which provides both essential natural resources for life (air, water, biodiversity and much more) and a pleasant, healthy place for people of all ages. As populations and lifestyles change, so GI must alter to ensure that such changes are sustainable. This increasingly results in the use of space for more than a single purpose, and a key feature of GI is multi-functionality:

Whether in a city:



Beehives on Lloyds Building, London, producing honey from city gardens and trees. © www.urbanbees.co.uk

Or in the countryside:



The White Cliffs of Dover support rare wildlife and provide clean drinking water as well as a place for healthy recreation

The Council is committed to a high growth agenda to stimulate regeneration, and this has sharpened the focus on GI. In order to respond to the Council's growth agenda while maintaining compliance with sustainable development, it is necessary to ensure that there is sufficient new provision of GI and protection of the existing assets.

The Council had previously commissioned a GI strategy (Dover Green Infrastructure Strategy 2011), but significant changes affecting various aspects of GI, including the demise of Regional Spatial Strategies (RSS) and the emergence of the National Planning Policy Framework (NPPF), have occurred in the intervening period and necessitated a thorough review of GI.

In order to identify the components of GI relevant to the Council, a wide literature search has been undertaken which has resulted in a simplified categorisation of GI assets, grouped under 'Biodiversity', 'Civic Amenity' and 'Linear'. This classification, which is of particular use when considering GI at different spatial scales such as for east Kent, clarifies the approach to GI and complements the updating of other strategies such as the following, supporting Civic Amenities:

- **Review of Play Area Provision, 2012-2026**
- **Parks and Amenity Open Space Strategy, 2013**
- **Forthcoming Playing Pitches and Outdoors Sports Facilities Strategy**

The target agreed by the world's Governments in 2002, "to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth", was not met and this led to a re-shaping of targets at the Convention on Biological Diversity Conference at Nagoya in 2010. These have subsequently been taken forward through the following strategy which permeates sustainable development and has been used to refresh the GI strategy:

- **Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services.**

Linear assets are, by and large, beyond the control of the Council. However, progress continues to be made on recreational walking and cycling routes through positive working with Kent County Council (KCC) and Natural England (NE), under, respectively:

- **Countryside and Coastal Access Improvement Plan**
- **England Coast Path**

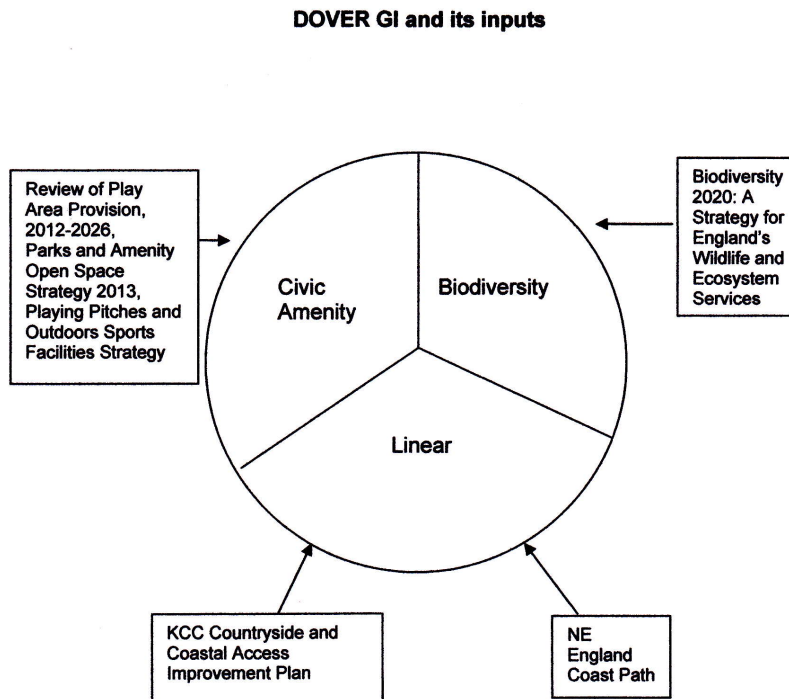


Figure 1.1 DOVER GI and its inputs

Population increase is being accompanied by greater longevity, which brings concomitant health and wellbeing issues. GI, through access to nature, is seen as a means to address some of the physical and psychological needs that people may have. GI is also recognised as having a value in ameliorating flooding and excessive temperatures, which extreme weather events are considered to be increasing, possibly through climate change. These wider benefits of GI can clearly result in economic benefits which reinforce the application of GI in planning.

To gain understanding of what the future GI needs might be, Dover district's rich resource of existing GI assets, ranging from ecosystem service provision to local cycle routes, have been collated to provide a baseline of information and to indicate elements for improvement and elements for protection. This is further explored through themes embedded in the Core Strategy.

With development, changes in the quantity and quality of GI need to be recorded and monitored. To this end a framework has been established which details what the Council can reasonably do. The civic amenity strategies set out what is sought with development, while improvements in walking and cycling routes are achievable on a site-specific basis through partnership with KCC and developers. Biodiversity presents a more complex and challenging problem. This GI strategy considers how the Council can address the Nagoya and Biodiversity 2020 goals and how the use of the new UK Biodiversity Action Reporting System, **BARS 2**, could be used to record and monitor habitat loss and gain with development.

One of the fundamental functions of GI is the establishment, maintenance and enhancement of networks, for people and for nature. This was considered at the time of the Core Strategy and continues to be expressed through a thematic approach to the wider district that also links to GI in other east Kent districts. The growth of East Kent Green Infrastructure (EKGI) is important in recognising that administrative boundaries have little impact on GI.

The 2011 strategy detailed action plans. Some of those actions were delivered within months of publication of the strategy while others remain aspirations. To provide the 2013 strategy with greater flexibility, the bulk of the action plans, particularly those offered by others, are to be web-based, with a Dover District Council webpage linked to adoption of the Land Allocation Local Plan (LALP). However, this strategy does itself contain commitments towards GI that the Council can deliver within a time frame of no more than twelve months:

- Establish a dedicated GI webpage;
- Continue the development of EKGI;
- Take forward the outcome of ARCH (Assessing Regional Habitat Change – an Interreg IVA-Two Seas Cross Border Co-operation Programme) in using the 2012 Kent Habitat Survey (KHS) for planning purposes;
- Establish the practical utilisation of another ARCH outcome, the Planning Application Screening Tool (PAST);
- Devise a protocol that will allow Kent and Medway Biological Records Centre (KMBRC) to obtain and utilise development site biodiversity data.

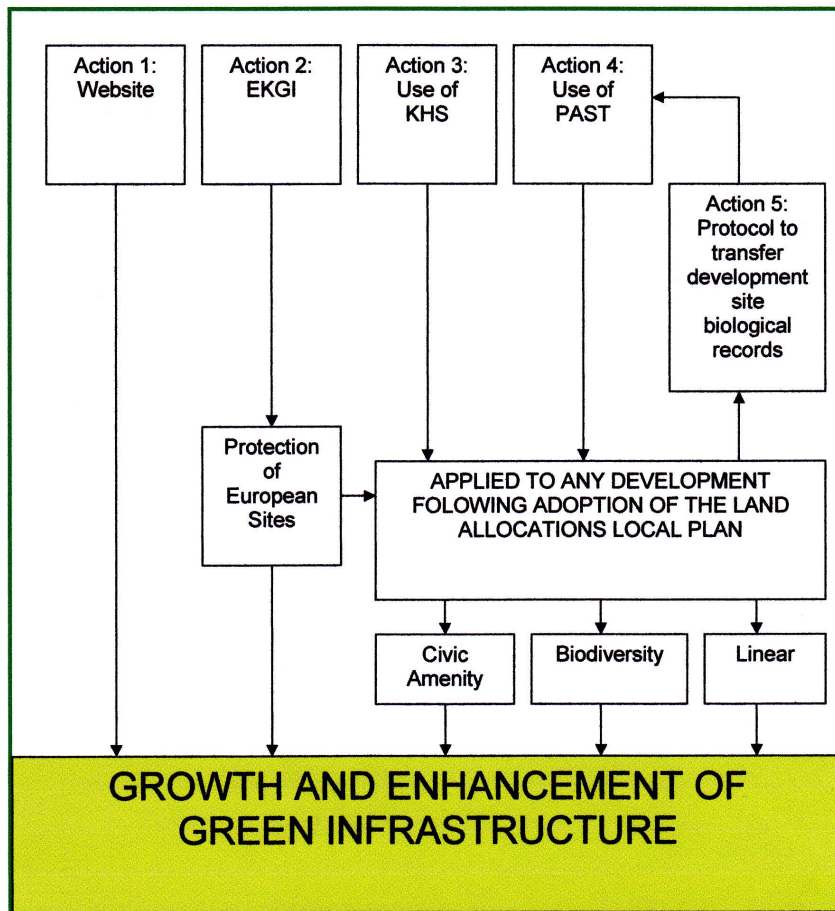


Figure 1.2 Delivering Green Infrastructure



Ancient woodland

1 Introduction

Definition of Green Infrastructure

1.1 The National Planning Policy Framework defines Green Infrastructure (GI) as:

- *A network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits to local communities.*

This definition is expanded in paragraph 1.13.

Importance of Green Infrastructure in Dover District

1.2 Dover District is characterised by a spectacular natural landscape and coastline and has a wealth of GI assets that are of value at the local, regional, national and international level and provide significant social, economic and environmental benefits. The District's assets range from the Heritage Coasts of the White Cliffs to the 'new' land created at Samphire Hoe and Fowlmead Country Parks. Chalk aquifers feed the catchments of the Rivers Dour and Stour. The Stour catchment incorporates the wetlands in the north of the District. Areas of rich biodiversity can be found such as chalk grassland, wetland marshes and coastal habitats including salt marsh and mud flats, many of which are sites designated for protection at the European level. These assets are detailed in Chapter 4.

1.3 The District contains the three towns of Dover, Deal and Sandwich and a large rural area with a great variety of villages including those associated with the former East Kent Coalfield. Mining activity and other industrial uses have left a legacy of isolated pockets of derelict and despoiled land in parts of the District which contrasts with the natural and historic beauty of the District. Dover was designated as a 'National Growth Point' in 2008 and is close to the national growth areas of Kent Thames Gateway and Ashford where major jobs and population growth are planned.

1.4 The 2011 census recorded that the DDC area had an estimated population of 111,700 people. Over the next 25 years, Dover's population is naturally projected to decline by -1,900 people resulting in a total population of 109,800 people by 2031. The main factor influencing Dover's falling population is an ageing population. In 2006, 19% of the district's population was aged 65+ but by 2031 this proportion is projected to have risen to 34%. Between 2006 and 2031 the number of people aged 65+ will increase by 70%. (Demographic Forecasts Dover District Council April 2010, Research & Intelligence Kent County Council).

1.5 Social and economic deprivation is a significant issue for the District but there is great variance within the District and a concentration in a small number of wards. There is overwhelming evidence of the health benefits of exercise and the concomitant reduction in healthcare costs emphasises the economic contribution GI can make.

Background to the Dover Green Infrastructure Strategy

1.6 The Dover District Green Infrastructure Strategy was originally written in 2011. It set out a framework for protecting, managing, enhancing and increasing the District's Green Infrastructure (GI) and for ensuring that the quality of provision is maintained and enhanced in the light of the significant housing growth forecast for the District. The GI Strategy was prepared by Dover District Council in partnership with key organisations and stakeholders involved in the planning and delivery of GI including Natural England, the Environment Agency, Kent Wildlife Trust, the Royal Society for Protection of Birds, and Kent County Council.

1.7 The strategic approach builds on the Council's Core Strategy Policy CP7 which relates to GI. The supporting text to Policy CP7 states that the Council will develop the Core Strategy's conceptual GI Framework into a GI Strategy and Action Plan to provide a framework for future development in the District, in conjunction with forthcoming master-planning for the Strategic Allocations in the Core Strategy and the emerging Land Allocations Local Plan. This ensures that GI and Habitat Regulations Assessment issues are appropriately incorporated into new development. In addition, work on the GI Strategy has also reviewed the Council's Open Space standards which can be used to support the identification of need for GI in new developments.

Introduction to the 2013 Strategy

1.8 In the two years that has passed since the original Green Infrastructure Strategy was published in 2011 there have been numerous changes, from Central Government Planning Policy to project work, including:

- The National Planning Policy Framework (NPPF), which has replaced all earlier Planning Policy Guidance and Statements (PPG and PPS);
- Revision of various key Dover District Council documents (see paragraph 1.14)
- The White Cliffs Landscape Partnership has been awarded £1.64 million by the Heritage Lottery Fund to pursue partnership projects amounting to £2.5 million within Dover and neighbouring Shepway District Council;
- The Sandwich and Stonar Loop Tidal Storage and Wetlands Nature Reserve project has been substantially altered, to preserve agricultural land use;
- Substantial progress with the wider East Kent Green Infrastructure (EKGI).

1.9 The rate of change is such that the Action Plan section of the 2011 Strategy has dated significantly. In order to avoid such rapid dating in future, it is now to be a web-based Delivery document, initially considering Council activities, that can be updated and expanded as needed. The Strategy itself, in accordance with the NPPF, will consider certain aspects of ecosystem services provision and take an updated approach to biodiversity protection.

1.10 The GI Strategy provides the foundation for the provision of a network of high quality accessible and multi-functional green infrastructure within the context of the area's growth and regeneration agenda. The strategy collates a robust evidence

base that will be used by the District Council when it is considering allocating land for development whether through the Council's forthcoming Land Allocations Local Plan or by sites coming forward as windfalls.

1.11 Dover District Council's Core Strategy was adopted in February 2010. This document sets out an agenda for housing growth and regeneration in the period up to 2026. It makes provision for 14,000 homes, at least 10,100 of which are planned to be delivered in the period up to 2026. This significant housing and population growth will put pressure on the District's GI. The challenge will be how to keep the quality and functionality of open spaces and improve the condition of others when faced with a significant expansion in population. A clear strategy is required to protect these assets, ensuring that growth is used as an opportunity to improve GI for current and future residents and to support wildlife and protect the natural environment. GI should be provided as an integral part of all new development alongside other infrastructure to ensure that the needs of new residents are met and the growth agenda is used as a positive tool for enhancing the District's natural assets.

1.12 Dover District Council is currently the lead member of a Planning Group which is seeking to establish a joint approach towards the identification, protection and enhancement of EKGI. Originally working together through the Regional Spatial Strategy (RSS) for the South East (the South East Plan, revoked in 2013), the group now functions through the Duty to Cooperate, as required in the Localism Act 2011. The Planning Group comprises the District Councils of Thanet, Dover, and Shepway, Canterbury City Council together with Natural England, with some financial support from Kent County Council (KCC). The Planning Group is a sub-set of a wider Stakeholder Group that includes the Environment Agency (EA), Kent Wildlife Trust (KWT) and RSPB. This wider stakeholder group allows for planning GI to integrate with GI created or enhanced through other initiatives (countryside stewardship, Heritage Lottery Fund schemes, organisational targets).

Evolution of Green Infrastructure Policy

1.13 The NPPF definition of GI is given at paragraph 1.1. This definition is derived from a number of works of which the White Paper, **The Natural Choice: securing the value of nature, 2011**, provides the link to earlier policy:

'Green Infrastructure is a term used to refer to the living network of green spaces, water and other environmental features in both urban and rural areas. It is often used in an urban context to cover benefits provided by trees, parks, gardens, road verges, allotments, cemeteries, woodlands, rivers and wetlands.

Green infrastructure is also relevant in a rural context, where it might refer to the use of farmland, woodland, wetlands or other natural features to provide services such as flood protection, carbon storage or water purification. Green infrastructure maintains critical ecological links between town and country.'

1.14 Earlier guidance and policies from PPG 17 (2002) through to the South East Plan (2009) listed assets which are incorporated within GI. The Core Strategy utilised the asset list in the South East Plan. For this updated strategy, those assets have been reviewed and modified to include the following:

- Natural and Semi-natural Open Space, including Access Land (Countryside and Rights of Way Act 2000);
- Accessible Green Space, including parks and gardens, (formal and informal, free of charge for access), amenity open space; green corridors, village greens and common land, informal kick-about areas, informal playable space and closed churchyards. (These particular GI assets are considered in detail in the **Parks and Amenity Open Space Strategy 2013**)
- Outdoor Sports Facilities including multi-use games areas. (These assets are to be considered within the forthcoming Playing Pitch and Outdoor Sport Strategy).
- Children's Play Space, including equipped play space, and skate parks. (These assets are considered in detail in the **Review of Play Area Provision 2012-2026**).
- Community gardens and allotments
- Historic Parks (These assets are discussed in detail in the **Heritage Strategy 2012**).
- Beaches and Foreshores, as linear features
- Public Rights of Way and permissive trails
- Cycle paths

1.15 While none of the original assets in the Core Strategy have been removed, they have been rationalised for consideration at east Kent scale. Therefore, for EKGI purposes, they fall into one of three broad categories of asset, based on their primary function, set out in table 1.1.

EKGI Asset Category	Dover DC GI Asset Type
Biodiversity	Natural and Semi-natural Open Space
Civic Amenity	Accessible Green Space Outdoor Sports Facilities Children's Play Space Community Gardens and Allotments

EKGI Asset Category	Dover DC GI Asset Type
	Historic Parks Commons and Village Greens
Linear (Features for which area measurements would not add to understanding of the asset)	Beaches and Foreshores Public Rights of Way and permissive trails Cycle paths

Table 1.1

1.16 The landscape in which GI sits is of importance and there are close associations between landscape quality and GI. Although not considered a GI type in its own right, the aesthetic contribution landscape makes is highlighted in Chapter 3 and its role in future GI emerges in Chapter 7.

Wider Benefits of Green Infrastructure

1.17 Although GI finds expression mainly through the planning framework its benefits are known to extend far beyond this context, providing a critical resource for both people and wildlife. According to **Benefits of Green Infrastructure** (Forest Research, 2010):

GI can help to build more sustainable communities by delivering:

- Ecosystems Services (see 1.18)
- Green spaces that can support greater social interaction and social inclusion
- Increased life expectancy and reduced health inequality
- Improvements in physical activity and health as well as psychological health and mental well being
- Encouraging education and learning by engaging people in the outdoors and the natural and built heritage environment.

GI supports wildlife and ecology by:

- Increasing wildlife habitat areas
- Increasing populations of some protected species
- Increasing species movement
- Providing migration corridors for species and habitats

GI helps to mitigate the impacts of climate change by:

- Reducing heat and flooding, particularly in urban areas
- Reducing CO₂
- The implementation of sustainable urban drainage systems which can combat flood risk

1.18 In 2011 **The Synthesis of Key Findings of the National Ecosystem Assessment** emphasised the need to consider Ecosystem Services. Six key messages emerge:

- *The natural world, its biodiversity and its constituent ecosystems are critically important to our well-being and economic prosperity, but are consistently undervalued in conventional economic analyses and decision making.*
Ecosystems and the services they deliver underpin our very existence. We depend on them to produce our food, regulate water supplies and climate, and breakdown waste products. We also value them in less obvious ways: contact with nature gives pleasure, provides recreation and is known to have a positive impact on long-term health and happiness.
- *Ecosystems and ecosystem services, and the ways people benefit from them, have changed markedly in the past 60 years, driven by changes in society.*
During the second half of the 20th Century, the UK's population grew by roughly a quarter to nearly 62 million, living standards greatly increased and technological developments and globalisation had major effects on behaviour and consumption patterns. The production of food from agriculture increased dramatically, but many other ecosystem services, particularly those related to air, water and soil quality, declined.
- *The UK's ecosystems are currently delivering some services well, but others are still in long-term decline.*
Of the range of services delivered in the UK by eight broad aquatic and terrestrial habitat types and their constituent biodiversity, about 30% have been assessed as currently declining. Many others are in a reduced or degraded state, including marine fisheries, wild species diversity and some of the services provided by soils. Reductions in ecosystem services are associated with declines in habitat extent or condition and changes in biodiversity, although the exact relationship between biodiversity and the ecosystem services it underpins is still not completely understood.
- *The UK population will continue to grow, and its demands and expectations continue to evolve. This is likely to increase pressures on ecosystem services in a future where climate change will have an accelerating impact both here and in the world at large.*
The UK's population is predicted to grow by nearly 10 million in the next 20 years. Climate change is expected to lead to more frequent severe weather events and alter rainfall patterns, with implications for agriculture, flood control and many other services. One major challenge is sustainable intensification of agriculture: increasing food production while decreasing the environmental footprint.

- *Actions taken and decisions made now will have consequences far into the future for ecosystems, ecosystem services and human well-being. It is important that these are understood, so that we can make the best possible choices, not just for society now but also for future generations.*

Contemporary economic and participatory techniques allow us to estimate values for a wide range of ecosystem services. Applying these to scenarios of plausible futures shows that allowing decisions to be guided by market prices alone forgoes opportunities for major enhancements in ecosystem services, with negative consequences for social well-being. Recognising the value of ecosystem services more fully would allow the UK to move towards a more sustainable future, in which the benefits of ecosystem services are better realised and more equitably distributed.

- *A move to sustainable development will require an appropriate mixture of regulations, technology, financial investment and education, as well as changes in individual and societal behaviour and adoption of a more integrated, rather than conventional sectoral, approach to ecosystem management.*

This will need the involvement of a range of different actors – government, the private sector, voluntary organisations and civil society at large – in processes that are open and transparent enough to facilitate dialogue and collaboration and allow necessary trade-offs to be understood and agreed on when making decisions.

1.19 Evidence in **The Natural Choice: securing the value of nature**, 2011, suggests clear benefits to public health and the economy of reconnecting people with nature. A good quality environment is associated with better mental health, reduced stress and increased physical activity and economic activity.

1.20 Natural England carried out a review on GI in 2012: **Microeconomic Evidence for the Benefits of Investment in the Environment**. The review offers economic evidence which is relevant to GI and brings the focus back to land use planning in order to optimise environmental benefits for:

- Economic growth and regeneration, including health and productivity, image and attractiveness, tourism and recreation, together with community cohesion;
- Economic security, including water, food and resources, flood control, heat and air pollution, and health;
- Climate change mitigation, including carbon sequestration, avoidance of energy use, and behaviour change;
- Climate change adaptation in respect of water management, flooding, and the urban heat island.

1.21 At a more local scale, the role of public rights of way for health and wellbeing is highlighted in the **KCC Local Transport Plan, 2011 – 2016**:

‘Being able to access and enjoy Kent’s countryside is important to health and wellbeing and many people use the County’s footpaths, bridleways and byways to do this.’

1.22 In 2013 the Landscape Institute issued an updated Position Statement on GI. The change in emphasis from the earlier position statement (2009) illustrates how widely GI now pervades spatial planning:

- From *Connected and multifunctional landscapes* (2009)
- To *An integrated approach to land use* (2013)

1.23 Significantly, both the coastal zone and wider countryside are considered more fully in the 2013 position statement, supporting the selection of Dover GI assets.

Document Structure

1.24 The diagram below indicates how the document is structured.

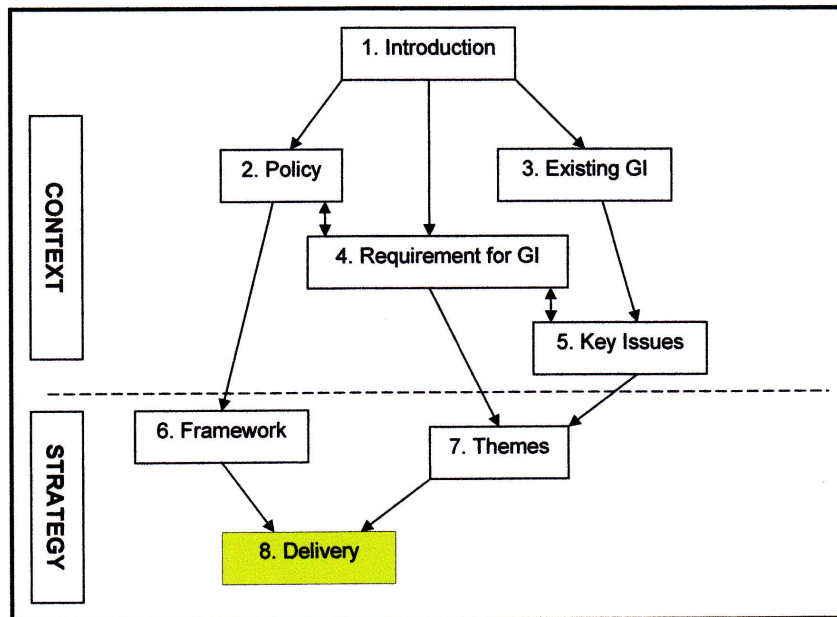


Figure 1.1 How this document is structured



The East Kent Coast

2 Policy Context

2.1 Legislation and Council strategies have changed considerably since the earlier GI strategy was published and these changes are detailed here.

The Community Infrastructure Levy Regulations 2010 (as amended)

2.2 The Community Infrastructure Levy (CIL) is a new levy that local authorities in England and Wales can choose to charge on new developments in their area. The money raised from CIL can be used to support development by funding infrastructure that the council, local community and neighbourhoods want, like new or safer road schemes, park improvements or a new health centre.

2.3 The provision of GI through developer contributions will be subject to the Council's approach to CIL. For the avoidance of doubt, however, where GI is necessary to meet the requirements of the Habitats Regulations 2010 (as amended) it is expected to be delivered on-site.

The Localism Act, 2011

2.4 The Localism Act requires that a list of assets of community value be maintained by the District, which will enable communities to nominate such assets and then, should such assets come up for sale or change of ownership, communities will have six months in which to develop a bid and raise money to purchase the asset at market value. Assets which local communities may wish to nominate may include GI.

2.5 Neighbourhood planning can provide a powerful tool to enable local communities to direct how they want their spaces to develop and could involve the enhancement and creation of GI. A list of Neighbourhood Plans that are being prepared or adopted is available on the DDC website.

2.6 There is a duty to co-operate placed on local planning authorities and neighbouring authorities and the County Council to co-operate in the process of sustainable plan-making.

National Planning Policy Framework (NPPF)

2.7 The NPPF sets out the Government's economic, environmental and social planning policies for England, identifying the purpose of the planning system as being to achieve sustainable development. In relation to the natural environment, the Government's objective is that planning should help to deliver a healthy natural environment for the benefit of everyone and safe places which promote wellbeing. In summary, to achieve this objective, the planning system should aim to conserve and enhance the natural and local environment by:

- Planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure (paragraph 114);

- Planning for biodiversity at a landscape-scale across local authority boundaries (para 118);
- Identifying and mapping components of local ecological networks, together with connections and areas identified for habitat restoration or creation (para 118);
- Promoting the preservation, restoration and re-creation of priority habitats and ecological networks (para 118);
- Minimising impacts on biodiversity and providing net gains in biodiversity, where possible (para 118);
- Taking account of climate change and providing appropriate mitigation in new development areas that are at risk from climate change (para 99); and
- Improving public access to and enjoyment of the coast (para 114).

2.8 Additionally, to help ensure provision of adequate resources, the local planning authority should:

- Undertake robust and up-to-date assessments of the needs for open space, sports and recreation facilities and opportunities for new provision. The assessments should identify specific needs and quantitative or qualitative deficits or surpluses of open space, sports and recreational facilities in the local area (para 73).
- Engage with public health leads and health organisations to understand and take account of the health status and needs of the local population (such as for sports and recreation), including expected future changes, and any information about relevant barriers to improving health and well-being (para 171).

Local Planning Policy

Dover District Council Local Plan Evidence Base

2.9 The 2011 Strategy referred to a number of key documents that provided evidence for the Dover District Local Plan Core Strategy. A number of these have been updated as shown in the table below:

Core Strategy Documents	Updated and New Documents
Green Spaces Strategy 2004	Parks and Amenity Open Spaces Strategy 2013
Parks and Open Spaces Strategy 2007-2012	
Play Strategy 2007	Review of Play Area Provision 2012-2026
Updated Audit of Council owned children's play spaces 2010	
Sports and Recreation Strategy 2007	Forthcoming Playing Pitches and Outdoor Sports Facilities Strategy (2014)

Core Strategy Documents	Updated and New Documents
Assessment of the demand and need for sports pitches and facilities in the District (2010/2011)	
Green Infrastructure Network Report 2009	High Street Survey of Green Infrastructure Use, 2010
	Green Infrastructure Strategy 2011
	Visitor Surveys of Selected Coastal Sites, 2011
	Visitor Survey Pegwell Bay and Sandwich Bay 2012

Table 2.1

Dover District Council Local Plan Core Strategy (2010)

2.10 Core Strategy Policy CP6 relating to 'Infrastructure', covers the District's entire infrastructure including GI and states that:

"Development that generates a demand for infrastructure will only be permitted if the necessary infrastructure to support it is either already in place, or there is a reliable mechanism to ensure that it will be provided at the time it is needed. In determining infrastructure requirements applicants and infrastructure providers should first consider if existing infrastructure can be used more efficiently, or whether demand can be reduced through promoting behavioural change, before proposing increased capacity through extending or providing new infrastructure".

2.11 The policy therefore requires suitable GI to be provided for development to be permitted. The delivery of GI should respond to the process for the provision of infrastructure in accordance with the following steps of (1) more efficient use of existing infrastructure (2) reduced demand through behavioural change (3) increased capacity.

2.12 Policy CP7 in the Council's adopted Core Strategy is the starting point for the GI Strategy and sets out the commitment to developing a Green Infrastructure Framework:

"The integrity of the existing network of green infrastructure will be protected and that would harm the network will only be granted if it can incorporate measures that avoid the harm arising or sufficiently mitigate its effects. Proposals that would introduce additional pressure on the existing and proposed Green Infrastructure Network will only be permitted if they incorporate

quantitative and qualitative measures, as appropriate, sufficient to address that pressure. In addition, the Council will work with its partners to develop the Green Infrastructure Framework and implement proposed network improvements”.

2.13 GI improvements can be either quantitative or qualitative. The former could be achieved through extensions to the GI network being incorporated in development proposals thereby providing new GI which may be on site. An approach such as this may draw on the Council’s amenity open space standards or require bespoke solutions depending on specific circumstances where, for instance, semi-natural habitats are involved and the Council must ensure compliance with legislation. In relation to Natura 2000 sites a solution comprising a range of measures including land purchase for buffering or provision of alternative open spaces suitable for recreation may be involved. Qualitative improvements could include financial contributions to achieve a range of improvements and enhanced management to the existing GI network, although CIL can limit the effectiveness of the using financial contributions.

2.14 Policy CP7 raises the importance of investigating the effect of Core Strategy proposals on European designated wildlife sites. In particular, this covers understanding recreational pressures on Natura 2000 sites to inform management and the provision of alternative open space. The Council’s Core Strategy Habitat Regulations Assessment identifies sites that may suffer from recreational pressure – notably Sandwich Bay and the Thanet Coast Special Protection Area (SPA). The issue of air quality and air quality monitoring of Natura 2000 sites is also raised.

2.15 Policy CP7 also states the development of the GI Framework will need to be undertaken prior to, or in conjunction with master-planning the strategic allocations and sites identified in the Land Allocations Local Plan, which may require their own Habitat Regulations Assessments. Finally the Policy notes that individual planning applications will need to be assessed in terms of their contribution to the GI Network and in particular their effects on Natura 2000 sites. If significant effects are likely then an Appropriate Assessment will be required in accordance with the Habitat Regulations – and if significant effects of proposals cannot be mitigated, then planning permission will be refused.

2.16 There are a number of Development Management policies contained in the Core Strategy which relate to the protection and enhancement of Dover’s Green Infrastructure assets. These are:

- Policy DM 15: Protection of the Countryside - seeks to protect the countryside from development beyond that needed to implement its proposals and to sustain the rural area’s communities or economy.
- Policy DM 16: Landscape Character - protect and enhance the diverse landscape character of the District.
- Policy DM 18: River Dour - To take opportunities to link up fragmented sections of the existing riverside walk for walking and cycling and to promote increased usage.

- Policy DM 19: Historic Parks and Gardens - Protection of these important GI assets.
- Policy DM 25: Open Space – Protect from alternative uses. Alternative uses will only be permitted if it can be demonstrated that there would be no quantitative or qualitative loss to the open spaces network or that the use is ancillary to the open space.

Dover District Council Land Allocations Local Plan

2.17 The Land Allocations Local Plan is expected to go to Examination in Public in early 2014. It deals with housing sites throughout the district. Further details can be found in Chapter 5.23 and Table 5.1 of this strategy.

Whitfield Urban Expansion Supplementary Planning Document (SPD)

2.18 The Whitfield Urban Expansion SPD was adopted by Dover District Council in 2011. This document provides further detail on the strategic allocation of an urban extension of some 5,750 homes to the north of Dover. It includes a GI framework as well as detail of phasing and housing numbers.

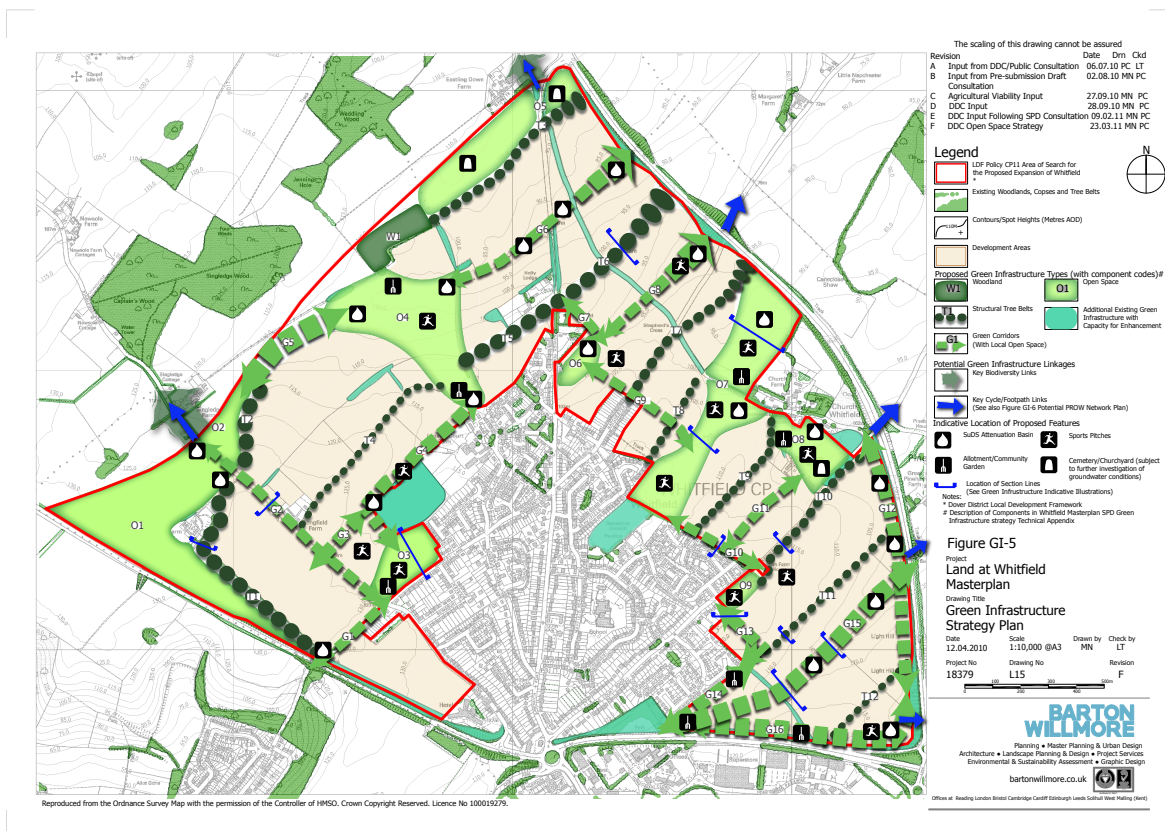


Figure 2.1 Green Infrastructure proposed for the Whitfield Urban Expansion

Housing Growth

2.19 Dover District Council was awarded Growth Point status in 2008, in support of its regeneration agenda to achieve a high level of sustainable growth and development. This proposed growth is considered in depth in the Core Strategy.

2.20 Dover's housing growth agenda responds to the need for an increase in the working age population and to mitigate an ageing population. Importantly the Strategy has identified considerable growth for the District with land to be allocated for 14,000 new homes with a target to complete a minimum of 10,100 homes by 2026. It identifies the broad areas where the growth of 14,000 net additional homes will be focused and identifies areas where higher levels of housing will be located; notably sites within the Dover urban area, Whitfield and Middle Deal/Sholden. At the sub district level, growth is particularly focused at Dover which is expected to experience an expansion in population of some 37%.

2.21 Core Strategy Policy CP3 sets out the broad areas for growth:

- Dover: 9,700 (70%)
- Deal*: 1,600 (10%)
- Sandwich: 500 (5%)
- Aylesham: 1,000 (7%)
- Rural: 1,200 (8%)

*Investigation has shown there is no further major development capacity in Middle/North Deal

2.22 The distribution of planned growth and development is shown spatially in Figure 2.2. It will be necessary to consider the effects of the growth proposals on Green Infrastructure and identify appropriate mitigation, including measures to address recreational pressures through new GI and the enhancement of existing provision.

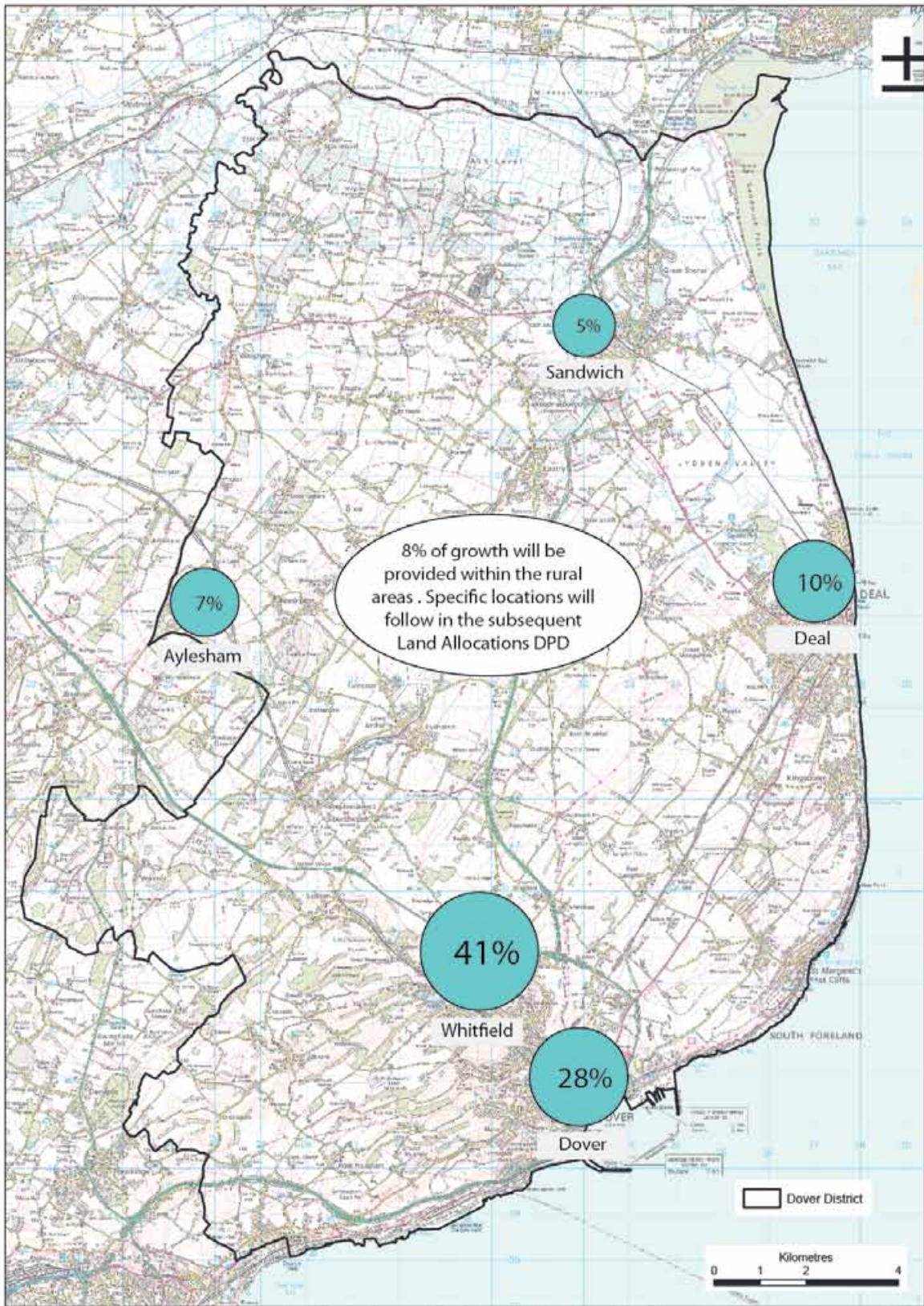


Figure 2.2 Spatial distribution of proposed growth (Dover Core Strategy 2010)

Summary

The Core Strategy, particularly policy CP7 provides a clear policy framework for the development of the GI Strategy. It sets a high level spatial framework for the Strategy and highlights key issues and potential improvements to the green network that provide a basis for further development and exploration in this GI Strategy. The Core Strategy specifically highlights the need to consider the effects of development proposals on European designated wildlife sites. It also states that planning applications that will put pressure on the wider network will be required to mitigate their impact through qualitative or quantitative measures.

The Core Strategy notes the significant housing growth planned in the district, the resulting population expansion and the associated recreational pressures on GI. The impacts of development need to be carefully addressed through the GI Strategy and the growth agenda used as a tool for enhancing the District's green assets.

National and local planning policies emphasise the importance of multi-functional open spaces and the development of a coordinated GI network to support sustainable, healthy communities. Whilst a growing population requires provision of GI for all age ranges, it will be important to provide appropriately for an ageing population – with highly accessible local GI spaces.



Play Area at Connaught Park, Dover

3 Existing Green Infrastructure

3.1 This chapter covers the wide range of existing GI assets in Dover District. The District has a predominantly rural and coastal landscape character, with significant areas of importance for biodiversity. These attributes offer its community a valuable resource.

3.2 Here, GI is considered on the basis of the significance of its assets, starting with the overview provided by Ecosystem Services. Landscape and biodiversity are inextricably linked but are treated separately here.

Global Assets: Ecosystem Services

3.3 When the concept of GI was first developed in the USA, it focused upon the protection of ecosystem services and biodiversity. Ecosystem services are the essentials for human life that the natural world provides. Nature gives us clean air and water; enables us to produce and gather food, fuel and raw materials from the land and sea; regulates our climate; stems flood waters and it filters pollution. It also gives us personal benefit from enjoying it that, in turn, increases our health and happiness. The provision of GI through planning contributes to the overall provision of ecosystem services and increases resilience to climate change.

International and European Assets: Biodiversity

3.4 Dover District has a number of internationally and nationally designated sites, which by virtue of their high level designation are protected from development, adverse impact and loss. International agreements for establishing networks of protected sites include The Ramsar Convention (The Convention on the Wetlands of International Importance, especially as Waterfowl Habitat, 1971) and the Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats, 1979). The issue of protected areas is also specifically addressed under the Convention on Biological Diversity Rio, 1992). Special Protection Areas (SPA) and Special Areas of Conservation (SAC) are established under the EC Birds Directive and Habitats Directive respectively, and together form the Natura 2000 network, established in 1992 by the European Union to protect the most seriously threatened habitats and species across Europe. In total there are 5 of these sites, as noted below, which stretch over large areas of Dover and neighbouring Thanet District. The mitigation of recreational pressures on these sites caused by new development in the District is an important part of the GI Strategy:

- **Dover to Kingsdown Cliffs - SAC.** The majority of the Dover to Kingsdown Cliffs SAC is owned by the National Trust, part of which comprises 'The White Cliffs of Dover', the area attracts more than 250,000 visitors per year and is important for its sea cliffs and cliff top grasslands;
- **Lydden and Temple Ewell - SAC.** This large site is designated for its chalk grassland and is one of the richest of such in Kent.

- **Thanet Coast and Sandwich Bay - SPA.** Thanet Coast and Sandwich Bay SPA is a coastal site consisting of a long stretch of rocky shore, adjoining areas of estuary, sand dune, maritime grassland, saltmarsh and grazing marsh. The site holds important numbers of Turnstone and is also used by large numbers of migratory birds as they make landfall in Britain in spring or depart for continental Europe in autumn. It is particularly susceptible to recreational pressure;
- **Thanet Coast and Sandwich Bay - Ramsar Site.** At the coast, the site is contiguous with the SPA, but it extends further inland. The designation is similar to that of the SPA but also includes important wetland invertebrates; and
- **Sandwich Bay - SAC.** This site incorporates the golf links north of Deal and is designated for its sand dunes and their rich flora.

National Assets: Biodiversity

3.5 Sites of Significant Scientific Interest (SSSI) are protected areas identified by Natural England as being of national wildlife importance, including flora, fauna, geological or physiographical features. International sites are based on SSSI, although SSSI may extend beyond the boundaries of the international sites.

- **Dover to Kingsdown Cliffs - SSSI.** The coastline from Dover harbour to Kingsdown is of extreme importance geologically and physiographically, and for its varied floral and faunal communities which include many rare species;
- **Folkestone Warren – SSSI.** This coastal site, comprising steep chalk cliffs and foreshore exposures is located just to the east of Folkestone. The series of cliff sections at the western end of the site represent the most important single locality for studying Cretaceous age rocks in England. Of particular note is Samphire Hoe:

Samphire Hoe, within the Folkestone Warren SSSI, is a 35 hectare park with visitor access situated 3 kilometres west of Dover town. Although it incorporates visitor facilities and provides country park facilities, its primary GI function is as a biodiversity area due to its SSSI status. The park was created by using 4.9 million cubic metres of chalk from the Channel Tunnel excavations and is found at the bottom of a section of the White Cliffs of Dover. The park attracts around 110,000 visitors per year. Walking, cycling, angling on the sea wall and bird watching are some of the activities available. Samphire Hoe is owned by Eurotunnel plc and managed in partnership with the White Cliffs Countryside Partnership. It has, in 2013, been awarded a Green Flag for the 9th consecutive year;

- **Alkham, Lydden and Swingfield Wood – SSSI.** Dover district has below average woodland cover but numerous ancient woodlands of which these are the best examples;

- **Lydden and Temple Ewell Downs – SSSI.** This site lies just outside the North Downs Area of Outstanding Natural Beauty. The site which is also an SAC is owned and managed as a National Nature Reserve by the Kent Wildlife Trust. It includes some of the richest chalk grassland in Kent, with outstanding assemblages of plants and invertebrates; and
- **Sandwich Bay to Hacklinge Marshes – SSSI.** This site contains the most important sand dune system and sandy coastal grassland in South East England and also includes a wide range of other habitats such as mudflats, saltmarsh, chalk cliffs, freshwater grazing marsh, scrub and woodland.

3.6 National Nature Reserves (NNR) are established to protect the most important areas of wildlife habitat and geological formations in Britain, as well as places for scientific research. As such, they are subject to management plans agreed with Natural England and can attract specific funding to help maintain these national assets. There are 2 NNRs in Dover District, out of 11 in total for Kent and Medway:

- **Sandwich and Pegwell Bay - NNR.** Incorporating Pegwell Bay Coastal Park (Kent County Council), the site is recognised for its important number of wading birds, together with its sand dune system and the rare species that it supports. This site is managed by Kent Wildlife Trust on behalf of a partnership including Dover District Council; and
- **Lydden and Temple Ewell Downs - NNR.** This escarpment is best known for its fine chalk grassland and associated rare orchids and invertebrates. The site is owned by the Kent Wildlife Trust.

National Assets: Landscape

3.7 Areas of Outstanding Natural Beauty (AONB) are areas of high scenic quality that have statutory protection (National Parks and Access to the Countryside Act, 1949 and Countryside and Rights of Way Act, 2000) in order to conserve and enhance the natural beauty of their landscapes. AONB landscapes range from rugged coastline and water meadows to gentle lowland and upland moors.

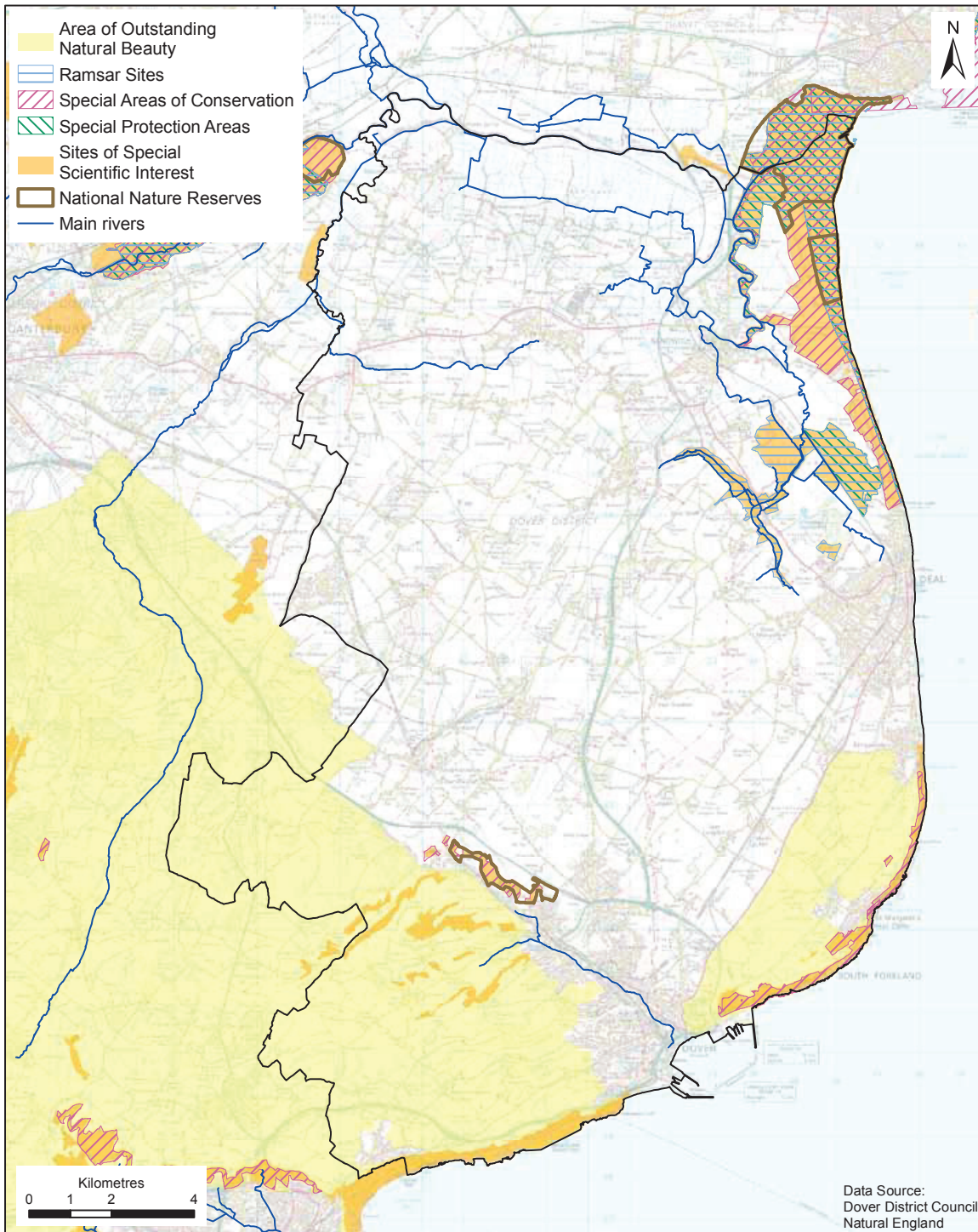
- **Kent Downs AONB.** The Kent Downs are the eastern half of the North Downs covering nearly a quarter of Kent, stretching from the White Cliffs at Dover up to the Surrey and London borders. Dover District contains two separate sections of the AONB either side of Dover town:
- **The East Kent Downs,** typically this area is dominated by long ridges and isolated valleys with scattered woodlands (often SSSI) on steep valley sides with hedges transecting the valleys. To the coast are exposed chalk cliffs and the tumbled, scrub covered rock-falls of the Folkestone Warren SSSI. Also present is scrub from post-war agricultural abandonment.
- **The South Foreland Valley,** characterised by the White Cliffs of Dover (SAC), there is unimproved chalk grassland along cliff tops (SAC), with a hinterland predominantly of large rolling arable fields with some remnant hedgerows or

scrub, dotted by farms and small settlements fringed by trees and scrub, creating an open landscape vulnerable to any form of development.

3.8 Heritage Coast is an area of UK coastline designated by Natural England as having notable natural beauty or scientific significance. The only two areas of Heritage Coast within Kent and Medway are found in Dover District and are the cliffs either side of Dover with their dramatic views to France:

- **Dover to Folkestone, Heritage Coast.** The heritage coast is dominated by the Folkestone Warren SSSI. Its cliff tops are marked by wartime defence structures, while Samphire Hoe lies at its base near Dover town. Its cliffs are greener than those east of Dover since with the railway and its sea defences between them and the shore, they are not subject to the erosive forces of the sea. It includes Shakespeare Cliff, named after a scene in King Lear; and
- **South Foreland, Heritage Coast** Almost entirely owned by the National Trust following a major purchase in 2012, these are the familiar White Cliffs of Dover as seen from France. The majority of the cliff faces arise directly from the sea and are exposed to its erosive forces which contribute to their whiteness. The cliff top is marked by the South Foreland Lighthouse and the Dover Patrol Memorial.

3.9 Figure 3.1 highlights the extent of international, European and nationally designated sites for biodiversity and landscape in Dover District. European protected sites cover much of the coastal area. Many of the nationally and internationally designated GI assets border urban areas and may be prone to the pressures of population growth. It is important to note that the designations do not necessarily represent fully accessible GI. In many instances, sites have restricted access due to the landscape characteristics, ownership or land use and are only accessible through public rights of way or when designated as Access Land under the Countryside Rights of Way Act 2000 (CRoW).



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Figure 3.1 International, European and National Biodiversity and Landscape Areas

National Assets: Historic Parks

3.10 There are a number of historic parks and gardens, designated by English Heritage, within the District:

- **Goodnestone Park**
- **Kearsney Court, Temple Ewell**
- **Northbourne Court**
- **The Salutation, Sandwich**
- **Waldershare Park**
- **Walmer Castle Park**

3.11 Of these, Goodnestone Park, Northbourne Court and Waldershare Park are rural. Kearsney Court and Walmer Castle Park are suburban, while the Salutation is urban. With the exception of The Salutation Gardens, which date from 1912, these have a historic landscape continuity to them that not only adds a sense of place but provides habitats associated with their particular management, such as parkland and veteran trees as well as extensive wooded areas. They are all privately owned, with the exception of Walmer Castle which is Crown Property managed by English Heritage, and the Russell Gardens section of Kearsney Court, as described below (3.43). While Russell Gardens is open all year round, only Goodnestone Gardens, Walmer Castle Park and the Salutation are generally open to visitors and there is a charge for entry.

National Assets: Woodland

3.12 The large-scale management of woodland as forestry is controlled by the Forestry Commission; thus, it is reasonable to consider woodland as a national asset.

3.13 Approximately 7.6% of the land cover in Dover is wooded, the majority of it comprising small areas of ancient woodland, which has national policy protection (NPPF paragraph 118). Much of this is designated for its biodiversity interest, either as SSSI or LWS, but there are numerous sites that are not designated which still have biodiversity interest and make a marked contribution to the landscape and amenity resource of Dover. Woodland comprises a mixture of public and private ownership and there is a variation in terms of the accessibility of sites.

National Assets: National Trails

3.14 There are two national trails which run through the District:

- **The North Downs Way National Trail** runs for 153 miles. It starts at Farnham on the Surrey Hampshire border and near its end at Dover has two alternative routes within the district, one via the coast towards Ashford and the other northwards to Canterbury.
- **The England Coast Path** is currently being planned (in compliance with the Marine and Coastal Access Act 2009) and, in Dover, will run from Pegwell Bay,

down the Stour estuary to Sandwich before returning to coast and onwards to Capel-le-Ferne.

National Assets: National Cycle Routes (NCR)

3.15 There are two National Cycle Routes in the District:

- **Sustrans NCR 1-** Dover to Grove Ferry (Canterbury) via Deal and Sandwich
- **Sustrans NCR 2–** Dover to Folkestone (Shepway)

National Assets: Access Land

3.16 The Countryside and Rights of Way Act 2000 (CRoW Act) 'Open Access Land' came into force in 2000. The Act implements the 'Right to Roam' on certain land and uncultivated areas of England and Wales. These areas are now commonly termed 'Access Land', to reflect the fact that certain restrictions may be in place for management purposes. Large areas of chalk downland in Dover District are designated as Access Land. Organisations including the White Cliffs Countryside Partnership are working to improve accessibility for walkers.

County Assets: Local Wildlife Sites

3.17 KWT has identified, on behalf of the Kent Biodiversity Partnership, 41 Local Wildlife Sites (LWS) within Dover. These are sites of county importance for their wildlife interest and complement designated SSSI. They are on both public and private land and form an important element of GI, particularly the chalk grasslands which wrap around Dover town.

County Assets: Roadside Nature Reserves

3.18 The Kent Wildlife Trust, working with Kent Highway Services has identified thirteen stretches of roadside verge that are important for wildlife. One, Do15, at Lydden Hill amounts to nearly 6.4 ha in area. The remainder occupy some 6.4 Km of road verge.

County Assets: The Stour River Catchment

3.19 Two main rivers flow through Dover District; the River Dour and the River Stour. The River Dour, located in the south of the District, has a local catchment. The Stour, in the north, drains much of East Kent. It provides different habitats and settings compared to the more accessible open spaces in the south of the district, as the downland gives way to the flat open landscape of the Ash Levels, the Lower Stour Valley and Hacklinge Marshes. The landscape of this part of the North Kent Plain 'Natural Area' consists of marshland and wetlands, with an intricate pattern of drainage.

3.20 The River Stour historically and currently is of poorer quality compared to the Dour, due to high nutrient concentrations, particularly nitrates and phosphates, which reduce biodiversity value. However, despite this, the catchment area has great nature

conservation interest, which includes the last valley fen in South East England, together with some 280 km of dykes and drainage ditches, draining approximately 10% of the district.

3.21 Although there are risks of fluvial flooding of the north of Dover District from the River Stour, these are minor in comparison to the risk of sea flooding.

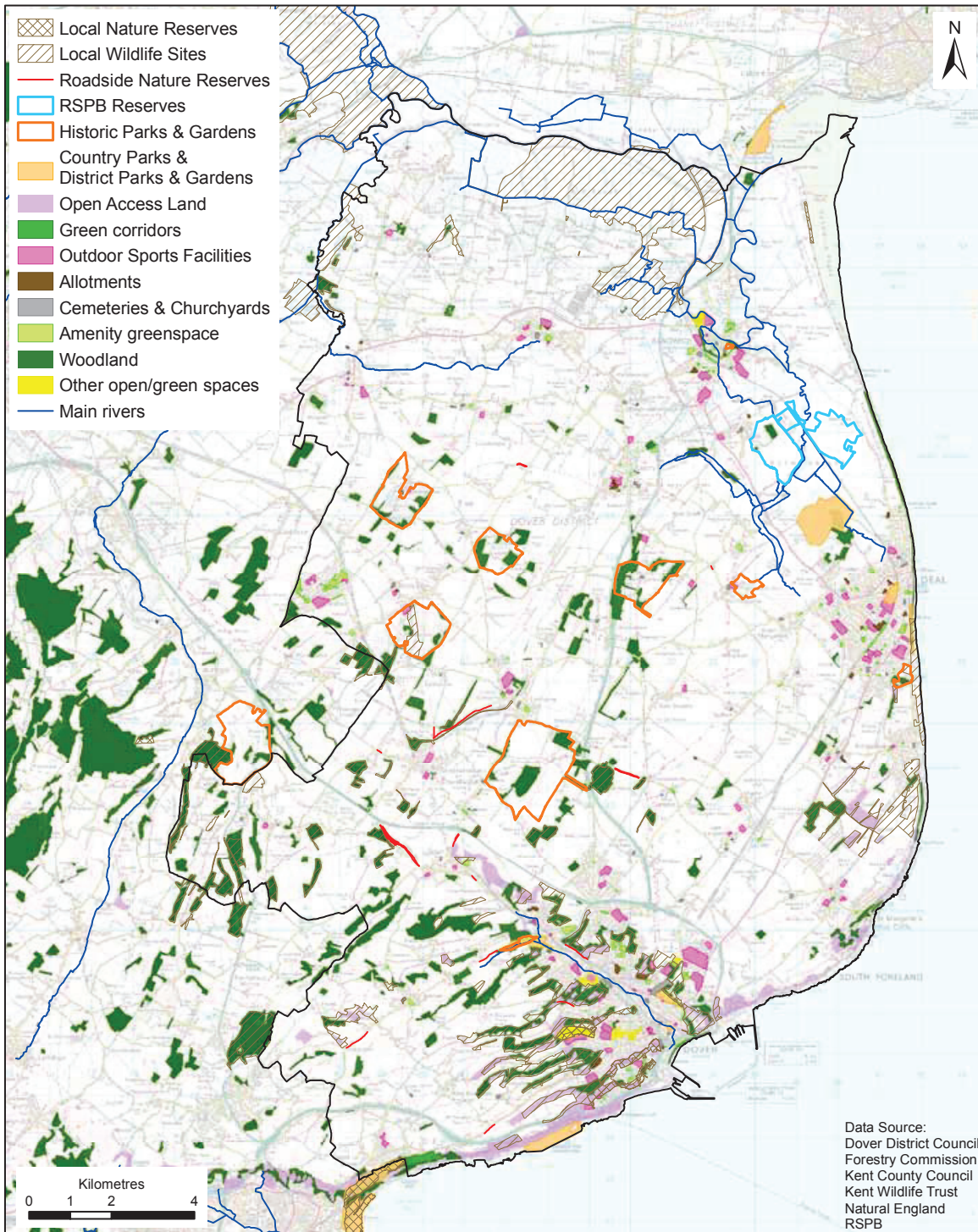
County Assets: Historic Parks

3.22 In addition to the English Heritage listed parks above, are three estate parks designated by Kent County Council, which contribute to the historic parks asset:

- **Betteshanger Park**
- **Fredville Park**
- **Knowlton Park**

3.23 These are privately owned and accessible only by public rights of way, where they exist.

3.24 Figure 3.2 set out the District's county and local GI assets. The map shows the strength of assets such as Local Wildlife Sites, Woodland and Historic Parks and Gardens, although these areas are not always accessible to the public. Countryside Rights of Way areas, parks and recreation are key accessible local designations.



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Figure 3.2 County and Local GI Assets

County Assets: Cycle Routes

3.25 In addition to the National Cycle Routes above, the following Sustrans Routes run through the District:

- **Sustrans Regional Route15** – Whitfield to Ramsgate (Thanet)
- **Sustrans Regional Route16** – Dover to Canterbury (Canterbury)
- **Sustrans Regional Route17** – Dover to Hawkinge (Shepway)
- **Sandwich in Kent to Rye in Sussex** - A 87km route using National Routes 1 and 2. Almost half of the route is traffic free.
- **Coast to Cathedral - from Dover to Canterbury** - A 72km circular route using Regional Routes 16 and 17.

County Assets: Horse Riding Trails

3.26 Riding trails in the district are not well developed. Apart from some limited toll routes managed by TROT (tollrides.org.uk), there is:

- **Freedown Rides** – 16 Km of riding routes near St Margaret's Bay

Local Assets: Local Nature Reserves

3.27 The District supports 4 Local Nature Reserves:

- **High Meadow** (LWS), managed by the White Cliffs Countryside Partnership (WCCP) on behalf of Dover Town Council;
- **Princes Beachland** (SSSI), managed by KWT on behalf of DDC
- **Western Heights** (LWS), managed by WCCP, on behalf of DDC and English Heritage;
- **Whinless Down** (LWS), managed by the WCCP on behalf of DDC;

Local Assets: Other Nature Reserves (excepting SSSI)

3.28 The District contains two other Nature Reserves

- **Gazen Salts Nature Reserve** is managed by Sandwich Town Council on behalf of DDC;
- **Monks Wall Nature Reserve** (LWS) is owned and managed by Sandwich Town Council.

Local Assets: The River Dour Catchment

3.29 The River Dour rises at Watersend and drains the dry chalk valleys in the vicinity of Dover town. It has been used throughout history as a local engine of production. The first record of a mill in Britain, in AD 672, is that of a corn mill on the Dour. The river has supplied the energy for thirteen watermills, including eight corn mills, the others producing paper. The town grew up around the river, which has been a source of power or water for other industries, including iron foundries, saw

mills and a tannery. The river discharges into the sea at Wellington Dock. The industrial history of the river has led to an under-appreciation of it as a GI asset, until recent years.

3.30 The River Dour catchment has good water quality and is important ecologically as, being an isolated catchment, it provides a safe haven for native species.

3.31 Being an urban river fed predominantly through groundwater makes the river susceptible to a mix of fluvial and pluvial flooding in periods of high rainfall.

Local Assets: Beaches and Foreshores

3.32 This section deals at some length with the coast as most current publications on GI disregard what is a defining attribute of a coastal district, and which has considerable socio-economic impacts.

3.33 The contribution of beaches and foreshores to GI is profound, ranging from ecosystem services such as flood prevention and seafood provision, to a range of recreational activities. Their significance to biodiversity cannot be over-estimated.

3.34 Foreshores are considered to be those coastal areas that, by and large, are found between the mean high water and the mean low water. Beaches may be part foreshore but also extend inland above mean high water. Inland, they tend to be bound by sea defences or, less often, by other physical structures, such as roads.

3.35 The constantly changing condition of foreshores and beaches, dependent on natural forces of longshore drift, tide and weather, makes it difficult to quantify what are important GI assets for a coastal authority. They are not fully accessible and cannot, therefore, be compared to other forms of open space. While foreshores on the parts of the undeveloped coast may be natural, most of the coastline in England has been subject to human intervention and requires ongoing management. The nature of the management employed affects the 'naturalness' of the coast. For this strategy, it has been concluded that it is better to simply treat beaches and foreshores as a single linear feature, albeit one with exceptional characteristics. This approach has been applied for the entire coast except Shellness on the Sandwich Bay peninsula, where the shoreline becomes amorphous. Here an arbitrary, but defined point marks the limit of measurement.

3.36 Defended coast occurs at the Warren, Samphire Hoe, Dover Harbour, St Margaret's Bay, Oldstairs Bay, Kingsdown, and from Deal to the Sandwich Bay Estate. The sea cliffs to the east of Dover are undefended as is Abbot's Cliff to the west of the town, while north of Sandwich Bay Estate, the coastal dunes are undefended.

3.37 Longshore drift is thought to have been affected by human activity, particularly by the construction of Dover Harbour. This has resulted in the stripping away of a shingle shoreline below the eastern sea cliffs, with consequential loss of natural beach feeding material to the shoreline north of these cliffs. This has resulted in the need for ongoing coastal defence maintenance at Kingsdown. Accretion of shingle

at Walmer maintains a wide beach there, while traditional groynes are used to hold shingle for the Deal town frontage. Northwards from Deal, the beach is artificially backed by a coal shale/shingle bund. Where beach scour is considered to be unmanageable by groynes, riprap is used (Oldstairs Bay, Sandown Castle).

3.38 The following beaches are commonly used for recreation. All are shingle except for the last (sand and shingle):

- Shakespeare Beach
- Dover Harbour
- St Margaret's Bay
- Oldstairs Bay and Kingsdown
- Walmer
- Deal
- Dunes north of Sandwich Bay Estate

3.39 At the base of the undefended cliffs, what little beach occurs is usually of large cobbles and boulders, rendering movement difficult. Where the cliffs are not protected by any shingle foreshore, chalk wave-cut platforms occur. These can be treacherous underfoot. A notable exception is Abbot's Cliff to Samphire Hoe which has a substantial beach. Elsewhere, access to the shore beneath the cliffs is very limited and this renders the foreshore, particularly below the cliffs to the east of Dover, both isolated and dangerous.

3.40 Beyond the urban confines, the coast, including the wave-cut platforms, is of national, if not international importance for biodiversity. Even in urban areas, if the beach is stable, such as at Walmer, it can be colonised by uncommon plants and invertebrates.

Local Assets: Country Parks

3.41 There are four Country Parks with free public access: Samphire Hoe, owned by Eurotunnel, 'The White Cliffs of Dover', owned by the National Trust, Fowlmead Country Park, currently owned by Hadlow College and Eastry Picnic Site, owned by KCC. All of these but the last charge for car parking.

3.42 As Samphire Hoe and 'The White Cliffs of Dover' sites are subject to wildlife legislation, they are classified for GI purposes as natural and semi-natural areas as is part of Fowlmead Country Park that is managed for ground-nesting birds. However, their importance for recreation must also be recognised.

- **Samphire Hoe**, part of the Folkestone Warren SSSI, is an exemplar of GI multi-functionality. Opened in 1997, it was constructed from 4.9 million cubic metres of spoil from the Channel Tunnel workings and incorporates extensive recreational features. The excellent management of the site for wildlife and people has resulted in it being awarded Green Flag status for the 9th consecutive year in 2013 .

- The National Trust's **'White Cliffs of Dover'** lies within the Dover to Kingsdown Natura 2000 site. In the past it has been host to a prison, an aerial ropeway and a mineral railway for transporting coal to the docks as well as WW2 gun batteries. Nowadays it is a favourite destination for over 250,000 people a year to visit, walk the cliff tops, as well as watch over the Straits of Dover. The 'Gateway' visitor centre includes an early example of a chalk grassland 'green roof'. In late 2012 the National Trust raised £1.2 million to complete the acquisition of the whole stretch of cliffs between Dover and South Foreland Lighthouse.
- **Fowlmead Country Park** is a 98 Ha park regenerated from the shale spoil tip of the former Betteshanger Colliery located just north of Deal. Since its opening in May 2007, Fowlmead has continued to develop as a safe off-road site for activities and leisure pursuits such as cycling (leisure, road, and mountain biking), running, orienteering, geocaching, archery, walking, bushcraft and fossil-collecting. Fowlmead has a two-mile tarmac road cycling track which can be used by the general public and is available for hire to clubs, organisations and individuals for cycling rides and events. There are a network of leisure paths for walking and cycling around the site and through the established woodland, and mountain biking trails are being developed.
- **Eastry Picnic Site** is a small site holding some large specimens of lime and beech trees, which provide shelter for picnicking in the summer.

Local Assets: Urban Parks

3.43 The formal parks and gardens in Dover District comprise; Kearsney Abbey, Russell Gardens, Connaught Park and Pencester Gardens, with formal elements included in the recreation grounds of Victoria Park, Marke Wood, and Walmer Seafront. Both Kearsney Abbey and Connaught Park are being managed in part to increase biodiversity.

- **Kearsney Abbey and Russell Gardens:** The gardens at Kearsney Abbey are laid out as informal parkland around two ornamental lakes through which the River Dour flows. Kearsney Abbey, a private house built for John Minet Fector, dates from 1822. Dover Borough Council acquired the house and 25 acres in 1959, but due to dry rot all but the billiards room, now a café, were demolished. The site is popular at all times of the year but especially in the summer time when the lawns become a favourite picnic site at weekends. A play area for children is available and the lower lake is used for model boating. Opposite Kearsney Abbey, Kearsney Court was completed early in the 1900's for a local paper mill owner, Edward Barlow, with formal gardens laid out by Thomas Mawson. Parts of the grounds, now called Russell Gardens, were purchased by Dover Borough Council in the 1960's. Facilities are available for tennis and putting, and a play area is provided for children. Yet a third house, Bushy Ruff House was built in the mid 19th century for another paper mill owner, William Knocker, who also excavated Bushy Ruff Lake. Part of the gardens including the lake was also purchased by Dover Borough Council and forms an informal

counterpart to Russell Gardens. Kearsney Abbey, Russell Gardens and Bushy Ruff are treated as one site by visitors, having a linking theme of lakes.

- **Connaught Park, Dover:** This was the first park established in Dover and has changed little since it was opened by the Duke and Duchess of Connaught in 1884. Set on the hillside below Dover Castle, it provides facilities for both recreational and sporting activities. The open grass slopes provide a pleasant environment for a stroll offering excellent views across the town. The lower part of the park is set out in a more traditional style with an ornamental lake and lawns leading to an aviary. Within the park there are both grass and hard tennis courts and a play area for children. In recent years, management of the grass in the upper part of the park has been relaxed, which should encourage chalk grassland flowers and butterflies.
- **Pencester Gardens, Dover:** Pencester Gardens are located in the centre of Dover and have, since 1924, provided a welcome area of open space within the town. The open lawns abut the River Dour provide a pleasant area for those working or visiting the town to relax. A skate park and play area are provided and Dover Town Council constructed a bandstand in 2000, which is regularly used through the summer.
- **Walmer Green, Walmer:** The seafront area at Walmer is laid to grass and provides a pleasant open area for informal recreation. The site includes the Royal Marines memorial bandstand constructed to commemorate those who died in the bombing in 1989. The bandstand is used each Sunday throughout the summer.

Local Assets: Recreation Grounds

3.44 Recreation grounds play an important part in the District's GI. Whilst not all outdoor sports facilities are publicly accessible, many of the District's recreation grounds are Council managed and provide a range of facilities that can be used free of charge or are available for hire. These include:

- **Danes Recreation Ground, Dover:** Danes Recreation Ground set on the eastern slopes of Dover provides facilities for football and cricket including changing rooms. The pitches are well-used by local clubs and this is one of the key sports facilities within Dover;
- **Marke Wood, Walmer:** Purchased for the community by the Marke family and inaugurated in 1930, this recreation ground serves the community as a recreational area, play area and sports facility and includes a changing pavilion. As regards sporting usage there are facilities for football, cricket and tennis, which are all well used;
- **River Recreation Ground:** This recreation ground on the north of Dover provides facilities for bowls, football, tennis and cricket and also a play area. The grounds

are owned and managed by River Parish Council who acquired the site from the Council in 1990;

- **Crabble Athletic Ground, Dover:** The history of the Crabble Sports complex dates back to 1896. Crabble Athletic Ground near Buckland in Dover town sits below the Dover AFC football ground and is used for rugby whilst also providing a 600m cycle track;
- **Elms Vale Recreation Ground, Dover:** Elms Vale is sited on the western edge of Dover and is a major site for sporting activities within the town. In addition to 5 football pitches and changing pavilion, there is a play area and multi-use games area (MUGA). This is a popular local facility well-used by a number of local football clubs;
- **Sandwich Recreation Grounds:** The town of Sandwich has a number of recreation areas sited round the former town walls. The Butts and Ropewalk are Scheduled Ancient Monuments which follow the line of the walls and offer residents and visitors a pleasant area to walk and admire the attractions of the town. A play area is situated on the north-east side in addition to multi-use games area with skateboarding/in-line skating facilities. Included within the large recreational grounds is a cricket green and the area close to the river is popular in the summer for picnics; and
- **Victoria Park, Deal:** Originally brickfields, which give rise to the difference in levels across the site, Victoria Park is an open grassed area which includes Tides Leisure Complex and Deal Indoor Tennis Centre. The grounds are used for a variety of leisure activities including football, tennis, bowls and skateboarding/in-line skating. A children's play area and teen shelter are provided and the Deal Gym Club is sited at the town end of the site. There is also a floodlit MUGA.

Local Assets: Public Rights of Way (PRoW)

3.45 The District has the 4th most extensive network of PRoW - public footpaths, bridleways and by ways in Kent, amounting to 630 km (391 miles) or 9.3% of the County total. The Kent Countryside and Coastal Access Improvement Plan (draft 5 year revision, 2013) seeks to improve management of these to enhance access to the countryside.

Local Assets: Cycle Routes

3.46 Local cycling activity is important: a recent Department for Transport Active People survey (2010 - 2011) showed that 12% of adults cycle for at least 30mins at least once a month in Kent. The highest ranking authority for cycling activity in Kent is Dover at 16%.

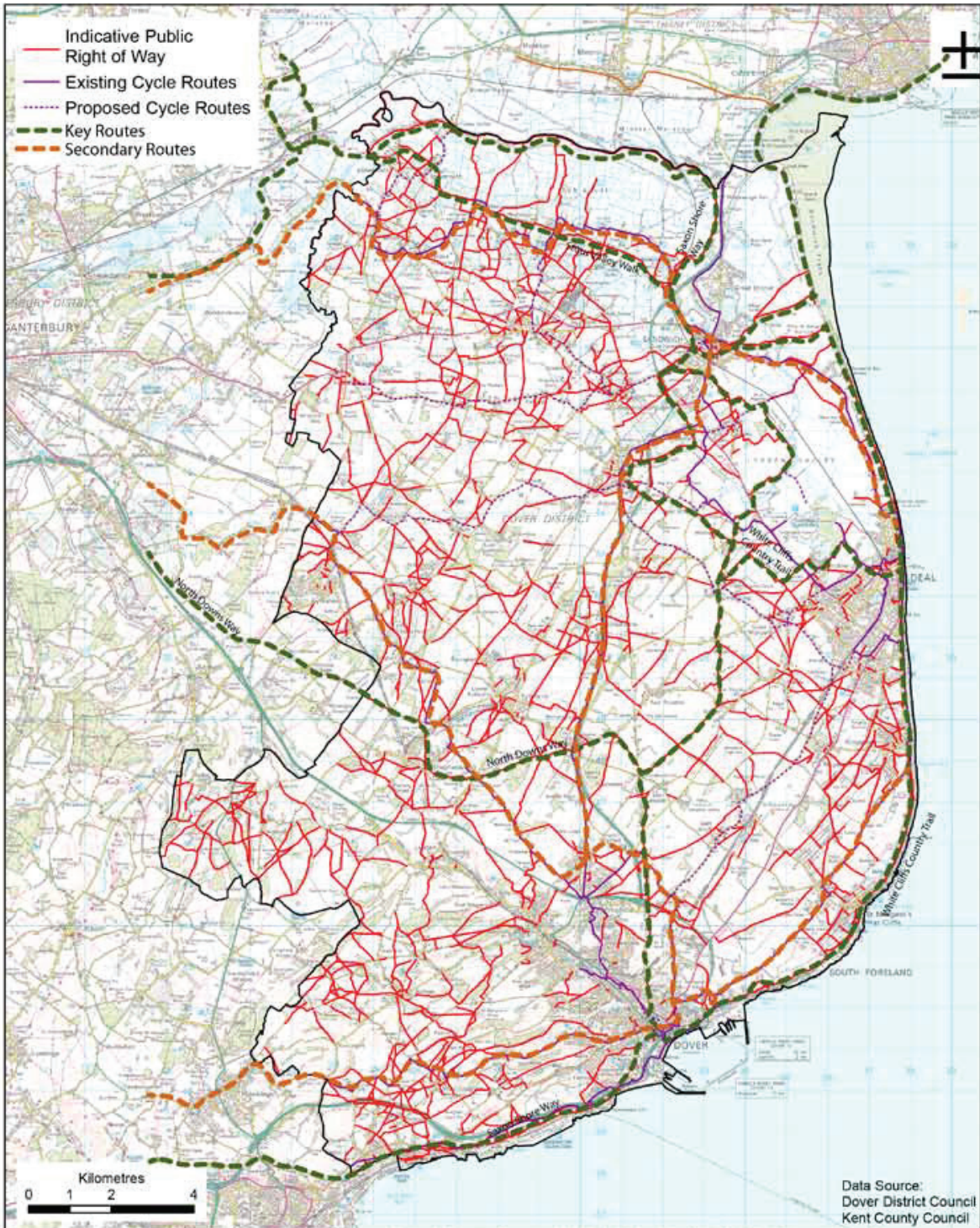
3.47 The Dover District Cycling Plan, 2008, provided a local focus to the wider KCC Local Transport Plan for Kent, 2006 - 2011 (now updated to 2011 - 2017). The implementation of the proposed cycle routes will play a significant role in improving accessibility across the District. Routes identified to be taken forward are:

- Deal seafront to Fowlmead, Victoria Park and Sholden
- River Dour cycle route, linking River to Dover town centre, which has recently been completed

3.48 Additionally, Kent Highway Services are evaluating the following possible routes.

- Walmer School to NCR1 (Walmer seafront).
- Fowlmead to Worth and Sandwich

3.49 Aside from this work, KCC are also upgrading to bridleway status the existing footpath linking the North Downs Way to Archer's Court School.

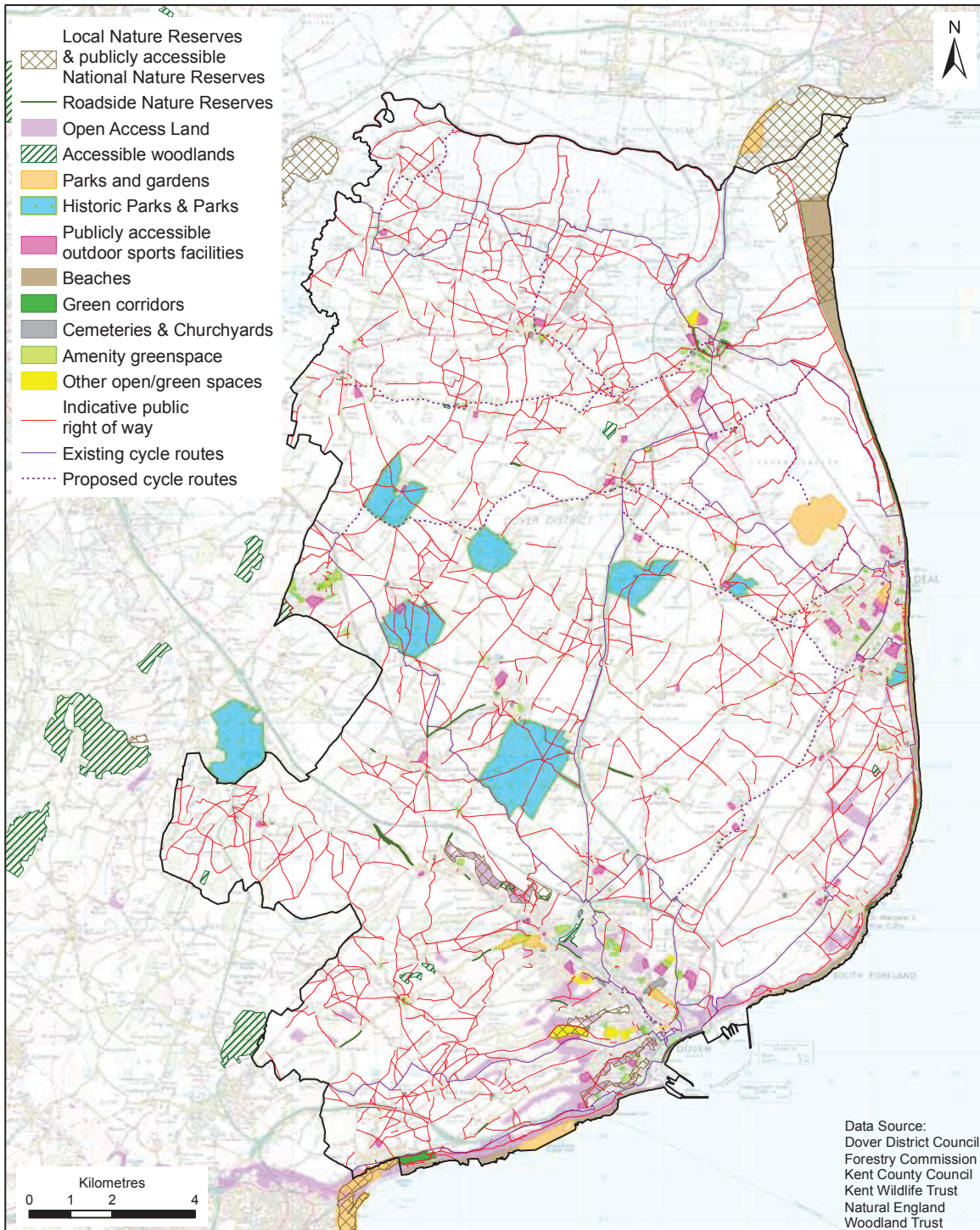


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Figure 3.3 Public Rights of Way

3.50 Figure 3.3 illustrates the extensive public rights of way and promoted cycle network (approximate layout only) as a means to accessing GI and reveals areas remote from the network. The map reveals gaps in the network close to nature designations, near to River Stour, across the Ash Level marshes and the coast at Sandwich Bay. The map also indicates that there are gaps in the network on the fringes of a number of settlements including Dover (Whitfield, Buckland, St Radigund's), Deal (Mill Hill) and Sandwich. For the October 2011 GI Strategy, The 'Natural Economy East Kent Strategic Access Plan' highlighted the Sandwich to Deal area, including Lydden Valley, and the coast between Dover and Deal as areas lacking short walks, although it also noted that these areas are designated sites where increased recreational activity may be in conflict with wildlife interests.

3.51 Figure 3.3 also includes the all walking routes in the District which integrate with east Kent. This includes the local White Cliffs Country Trail circling Dover, Sandwich and Deal and the national North Downs Way. These are particularly important in ensuring the District's assets are well connected through well managed corridors. In addition to their role as long distance routes, these can also act as, or form the basis of important local strategic routes.



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Figure 3.4 GI Assets

3.52 Figure 3.4 presents all GI assets that are accessible to the public and shows that large areas such as the AONB and historic parks and gardens are not fully accessible to the public. Local parks, public rights of way and Open Access Land are some of the key assets that allow people to access the wider GI network.

Local GI Organisations

3.53 Some of the organisations operating in the District with regard to GI are:

- Kent County Council;
- Dover District Council;
- Neighbouring East Kent Authorities
- Natural England;
- Environment Agency;
- Parish Councils
- National Trust
- Royal Society for the Protection of Birds; and
- Kent Wildlife Trust.

3.54 There are numerous others, such as the Woodland Trust and civic societies, which all have a part to play, but their role is bound to be far more specialist, either spatially or sectorally.

Summary

The District has a wide range of extremely high quality GI assets. The most significant in terms of accessible spaces are the country parks of Samphire Hoe and Fowlmead alongside major formal parks such as Kearsney Abbey, Russell Gardens, Connaught Park, Pencester Gardens, and Victoria Park, Deal, supported by amenity open space including outdoor sports facilities and recreation grounds.

The District has a significant number of internationally designated sites which must be protected from adverse impacts of additional recreational pressure associated with housing and population growth. There are also a number of nationally designated sites as well as local wildlife sites in the District which should also be protected from additional recreational pressure while providing, where possible, opportunities for enjoyment by residents.

Areas of woodland and historic parks and gardens are significant features in Dover District however many of these are privately owned, restricting their use as a GI asset for recreational use.

The District has an extensive public rights of way network that covers much of the district and includes the strategic routes of the White Cliffs Country Trail and North Downs Way. Given the importance of accessibility to GI issues this network has the potential to play an important role in the GI strategy in improving accessibility, including the implementation of an expanded cycle network, to support the popularity of cycling, and through work on the Countryside and Rights of Way Access Land.

Connectivity is an issue that affects both people and wildlife and the promotion and development of an interlinnetwork of multifunctional open spaces can have wide ranging benefits, including biodiversity safeguarding for species and supporting more sustainable forms of travel by people between settlements and destinations. There are opportunities to improve connectivity and strengthen the GI network.

The responsibility of stewardship for GI is spread across a number of organisations and their initiatives, resources, and commitment will play an integral part of the delivery of the GI Strategy. It will be important for the GI Strategy to establish a partnership framework for green infrastructure planning and delivery.



Change in shoreline at Kingsdown after storm

4 The Requirement for Green Infrastructure

4.1 This chapter considers the demand for GI. For the 2011 strategy, demand was assessed through the usage patterns of residents, as ascertained through surveys and consultation with key stakeholders. The findings are considered to remain valid at this time, but have been further informed by the:

- Review of Play Area Provision 2012-2026
- Parks and Amenity Open Space Strategy 2013

4.2 Both these documents highlight the need for accessible green space and children's play space and the extra provision expected with housing development.

4.3 In the 2011 strategy it was noted that the quantum of provision of some elements of GI were underestimated. The Parks and Amenity Open Space Strategy has updated these values.

Open Space Type	Quantity in Hectares 2004	Quantity in Hectares 2013	Difference in Hectares
Accessible Green Space	170 ⁽¹⁾	243	+73 (43% increase)
Outdoor Sports Facilities	227	104	-123 (54% decrease)
Children's Play Space	8.41	7.04	-1.37 (16 % decrease)
Community Gardens	21.8	23.4	+1.76 (7.3 % increase)
Operational Cemeteries	36.4	19.7	-16.7 (46% decrease)
Accessible Natural and Semi-Natural Green Space	457	782	+325 (71 % increase)
Totals	921	1,179	

Table 4.1

1. Obtained by summing provision recorded in 2004 for parks and gardens, green corridors and amenity greenspace

4.4 Quantifying open space provision is not easy due to the need to consider the primary function of such space. This has led to some redefining of space. For instance the 2004 Dover District Green Spaces Strategy did not differentiate between closed and operational cemeteries, although their usage and management differs. Likewise, reflecting on the Dover District Sport and Recreation Strategy 2008-2012, Sport England currently recommends that school playing fields be excluded from figures for outdoor sports facilities as these are not accessible to the general public.

4.5 Other changes have come about through new provision of land (Fowlmead Country Park) and changes in legislation (for instance, the creation of open access land through the Countryside and Rights of Way Act, 2000, has led to a large increase in accessible natural and semi-natural green space).

4.6 Currently, an update of the Playing Pitch and Outdoor Sport Strategy is being undertaken, but it is not expected to affect the overall outdoor sports facilities figure of 104 ha.

4.7 Further information on the updated figures is to be found in the Parks and Amenity Open Space Strategy 2013.

Existing Demand: GI Survey 2010

4.8 A high street survey was carried out in autumn 2010 to inform the development of the 2011 GI Strategy. It is not considered necessary to update the survey at this time. The method used was to conduct 500 face to face interviews with residents at selected locations throughout the Dover District area, covering Whitfield[47] , Dover [94] , Deal [70], Sholden [44], Sandwich [83] and a number of rural locations [totalling 151]. A summary of the results is set out below and is expanded further in this section with regard to location-specific visits and user origins. A full report of survey responses is set out in the appendix to the 2011 strategy.

- Some 78% of those interviewed, and/or their family members, had visited Green Infrastructure sites in Dover or the surrounding area within the previous year. For those who had not, the main reason was lack of interest although some were constrained by time or their health.
- The most likely type of GI usage was of the coastline, cliffs and beaches, visited by 70% of users. This was followed by Parks and Gardens at 49%.
- Across all the GI spaces, the most frequent reason for usage was walking, followed by simply relaxing and 'getting fresh air'.
- Most locations are visited on both weekdays and weekends and usage is a little less frequent in winter.
- The length of a visit was typically between 30 minutes and two hours although it could vary from a few minutes to all day.
- More than half of all visits are made on foot. Locations such as Nature Reserves, the coastline and Country Parks are more likely to be accessed by car.
- Travel times are short with three out of four people taking no more than 15 minutes to reach their destination.
- Desirable improvements at locations visited are minor, such as keeping them free from litter and rubbish and providing more 'dog bins'.
- More general priorities for Green Infrastructure are to keep the spaces clean and not allow building on them.
- Satisfaction levels with both the number and quality of GI spaces are generally high across the District with small local variations. The weakest area is perceived to be provision for teenagers. It is recognised that even with a greater level of financial investment teenager provision may not meet everyone's expectations

(a skate park may not appeal to all teenagers, for example). The greatest dissatisfaction with teenage provision was in Deal (quality and quantity), followed by Sandwich (quality) and Sholden (quantity). Some limited dissatisfaction was also expressed with regard to children's play space in Sandwich (quantity), Sholden (quality), Dover (quality) and Deal (quality and quantity).

In this GI Survey interviewees 'named' the places they visited. As such, the locations may have been somewhat approximate. For instance, it is considered that 'Deal beach' probably included Walmer beach. However, this does not detract from the general thrust of the survey findings.

4.9 Two out of three people rate the protection and management of wildlife in the area as 'good' or 'excellent'. They are receptive to a range of measures to improve this further, including the promotion of knowledge and education.

- There was a good level of interest in potentially becoming involved in managing green space from 10% of the sample across a broad spectrum of the community.

4.10 Further information from a number of sources has provided background to the later updated section on current and future demand.

Existing Demand: Dover Visitor Survey 2011

4.11 A visitor survey was undertaken in January and February 2011 to assess recreational use of coastal locations by residents. The results of this survey were reported in May 2011 based on the findings of a 450 questionnaire survey undertaken at a number of visitor specific locations. These comprised Pegwell Bay [98], Sandwich Bay [105], Sandown Castle in North Deal [101], Walmer Castle [99] and the White Cliffs [46]. The White Cliffs results were gained through self completed postal surveys rather than face to face interviews. The full survey details are available on the DDC website. The findings are included in the GI Survey patterns that follow. In summary, of the visitors to the four areas of Pegwell Bay, Sandwich Bay, Sandown Castle and Walmer Castle:

- Nearly two-fifths of respondents came from Deal, the next most common home towns are Dover and Ramsgate at 10%;
- The great majority of respondents (92%) were not visiting with any children;
- Three-fifths of visitors had one or more dogs with them;
- Most of those with dogs visit the sites specifically to let their dogs off the lead;
- Over four-fifths of respondents travelled to the sites by car; and
- Most respondents have spent between 30 minutes and 2 hours at the sites.

4.12 The following more specialist information has been gathered since the 2011 strategy and further informs consideration of current and future demands:

- **Up on the Downs HLF Landscape Partnership Scheme: A Report on the Findings of the Local Centre and Online Surveys (LPS Surveys 2011)**

- **Up on the Downs HLF Landscape Partnership Scheme:** *Community consultation with BME groups in Dover and Folkestone for the White Cliffs Landscape Partnership Scheme* (LPS BME Groups 2011)
- **Up on the Downs HLF Landscape Partnership Scheme:** *Following the participation and involvement of local children and young people in the design of the White Cliffs Landscape Partnership Scheme* (LPS Young People 2012)

The above information was based of the Landscape Partnership Scheme Area which is centred about Dover and Folkestone towns and not representative of the wider district.

- **Dover Visitor Survey Pegwell Bay and Sandwich Bay April 2012:** This survey work was based at two sites, one in Thanet (Pegwell Bay) and one in Dover (Sandwich Bay)
- **The Pegwell Bay, Kent: Bird Disturbance Study 2010- 2012:** (KWT). This work, primarily based at Pegwell Bay in Thanet has relevance to Dover.

General Public Preferences

4.13 The High Street Survey of Green Infrastructure Use (2010) gave a clear indication that the preferred public use of GI was the coastline, cliffs and beaches, visited by 70% of users, followed by Parks and Gardens at 49%.

4.14 These percentages are supported by the results of the LPS Surveys 2011:

- A high proportion (82% from the local centre survey and 99% from the online survey) of people had accessed natural and historic sites in the scheme area within the past year
- Kearsney Abbey & Bushy Ruff was the site that the most number of participants had visited (67% of participants in the online survey and 59% from the local centre survey).

4.15 Thus, while it is essential to provide open space and children's play space close to where people live, the overwhelming public preference for accessible natural and semi-natural green space and popular parks and gardens must also be considered.

Current and Future Demand: GI Survey Patterns and implications by location

4.16 The 2010 survey identified the most visited GI assets in the District by resident origin, recorded by asking residents for locations they had visited in the last year. This has been used to build up a picture of usage patterns in the District. According to the survey, Deal Beach and Kearsney Abbey are the most popular locations in the District, followed by St Margaret's and the White Cliffs. However, the results indicated that residents primarily use GI assets close to their homes rather than travel

across the District. The most visited locations by resident origin are considered below and supplemented by the findings of the 2011 Visitor's Survey and the 2011 LPS surveys.

Dover

4.17 The 2010 Survey identified that Kearsney Abbey is visited by 30% of Dover Town residents, the most popular GI location. Cliff areas are visited by 24% of residents followed by Connaught Park and Dover Beach (15% each) and Pencester Gardens (13%). The 2011 Visitor survey found that the majority of White Cliffs visitors (72%) come from Dover Town. With Dover anticipated to accommodate 28% of future growth in the District it will be important that the most used assets are reinforced to cope with heightened usage levels – particularly since the constrained nature of the town restricts new local provision. The LPS 2011 Surveys results (Figure 4.1) are informative here:

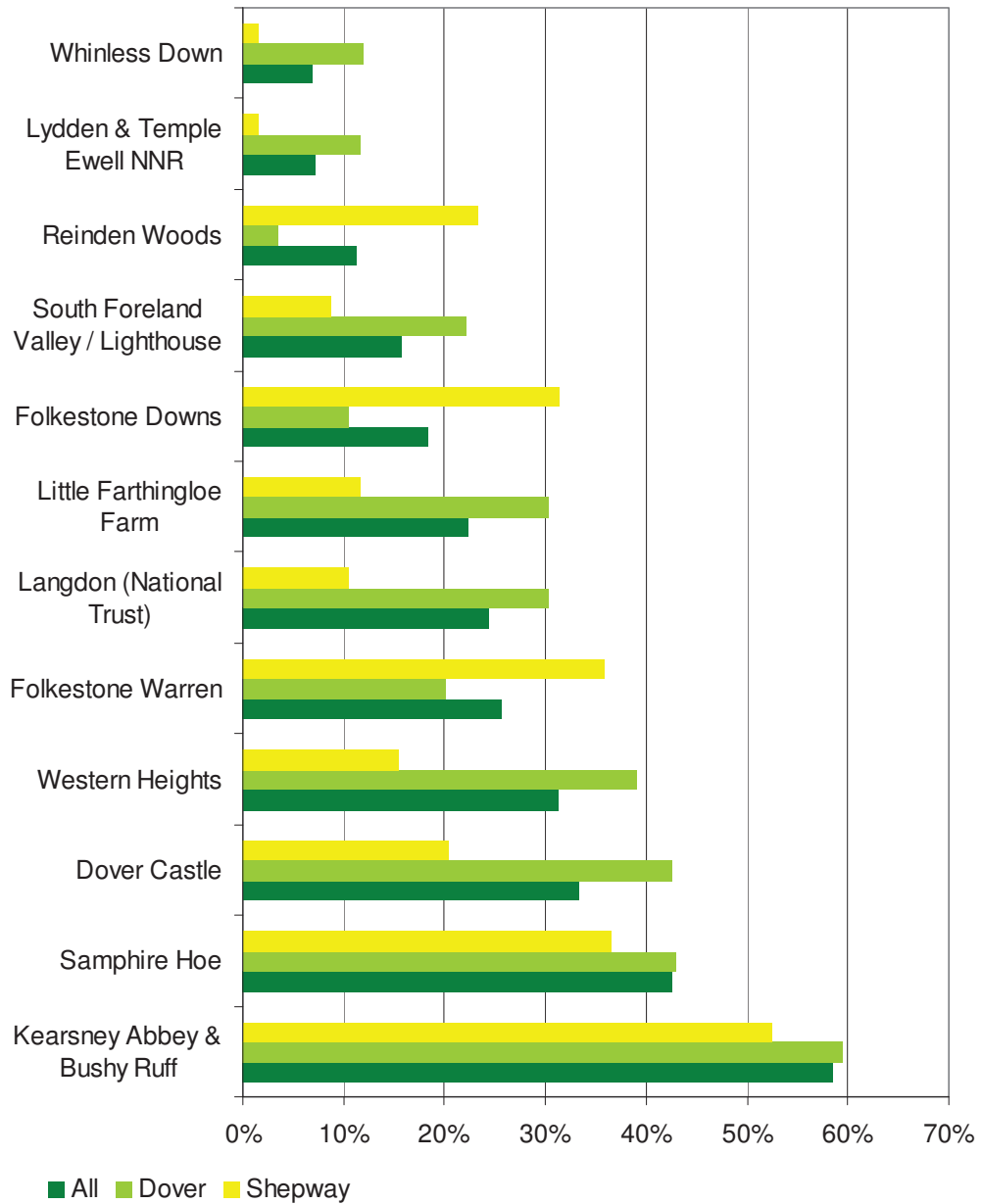


Figure 4.1 Percentage of respondents by district who visited LPS locations in 2011 (from LPS Survey 2011)

4.18 The results for Kearsney Abbey & Bushy Ruff as well as for Samphire Hoe illustrate that visitor numbers from Shepway do not fall far short of those from Dover, indicating that some local GI assets may have a wider appeal.

Whitfield

4.19 Almost half of Whitfield's residents questioned in the GI Survey (47%) report that they use local green spaces – primarily the Whitfield recreation ground, associated pitches and children's play space. Dover Beach is the second most favourite choice (26%) followed by Kearsney Abbey (17%) and Dover Cliffs (13%).

4.20 With the Whitfield Urban Extension set to deliver some 5,750 new homes or around 14,000 residents, new local GI will be essential in ensuring sustainable patterns of use to avoid pressures on nearby sites.

Deal

4.21 According to the GI Survey, Deal resident user patterns focus very much on existing local provision. Deal Beach (34%), Victoria Park (19%) and Marke Wood (17%) were reported to be most used by Deal residents, followed by Fowlmead at 14%. Deal is anticipated to accommodate a small amount of the District's future housing growth. Management and enhancement of existing facilities will be important in securing future GI provision in Deal.

Sholden

4.22 The nearby local assets of Deal Beach (25%), Victoria Park (18%), Fowlmead (16%) and Marke Wood (14%) are reported as being most frequented by existing residents. Development is progressing at Sholden with some 200 houses being built by New Street and a further 235 likely in the near future. GI provision, promoting the use of Fowlmead has already been made to accommodate this growth.

Sandwich

4.23 GI use in Sandwich is reported as being very localised with some 54% of residents frequenting local parks, the Butts and Ropewalk or Gazen Salts Nature Reserve. Sandwich Beach is also very popular with 35% of residents making trips to the location and 12% of residents visiting Pegwell Bay – Sandwich and Pegwell Bay being European protected sites. The 2011 Visitor Survey recorded that around 25% of visitors to Sandwich Bay were from Sandwich and a similar number from Deal. Pegwell Bay visitors were primarily from Ramsgate with only a small percentage from within Dover District.

4.24 Contrasting with the findings for Kearsney Abbey & Bushy Ruff and Samphire Hoe, the 2012 Dover Visitor's Survey reflected a more parochial use of Pegwell Bay (Thanet) and Sandwich Bay (Dover):

Location Visited	% travelling by car	% ⁽¹⁾ Visitors from Ramsgate	% visitors from Sandwich	% Visitors from Deal
Pegwell Bay	91	35	2	6

Location Visited	% travelling by car	% ⁽¹⁾ Visitors from Ramsgate	% visitors from Sandwich	% Visitors from Deal
Sandwich Bay	82	8	28	30

Table 4.2

1. % of total number of all people who responded to the survey

4.25 The implication is that ease of access by car plays a significant factor in visitor profile at different sites.

Rural Areas

4.26 Surveys were conducted at a number of rural locations across the District. St Margaret's-at-Cliffe was reported as being visited by 12% of rural residents, followed by the White Cliffs (10%). Visits were generally distributed across a variety of sites across the District. The 2011 LPS surveys showed that for such sites, visiting tended to be more localised, with far less extra-district interest.

Online Survey

4.27 The 2010 high street GI survey was supplemented by an online survey (which included the same questions) open to all of the District's residents and advertised on the Council's website. This was completed by 49 residents with particularly high representation from Sholden (43 percent) and a further 24 percent from Dover Town. The answers largely correspond with the findings of the high street GI survey, although the satisfaction with children's play space was lower in the online survey. The smaller sample size makes for less reliable findings than the GI high street survey.

Planning Applications

4.28 It is increasingly the case that planning applications stimulate a requirement for GI. The Review of Play Area Provision 2012-2026 and the Parks and Amenity Open Space Strategy 2013 set out standards of play space and open space provision with development, but for wildlife and landscape, a complex set of interactions determine GI requirements, some of which may be a legal requirement, rather than policy.

4.29 The setting of the public rights of way network may need to be considered in even minor applications as it is widely understood that to stimulate recreational walking, the ambience of paths is important.

4.30 The Thanet Coast and Sandwich Bay SPA Mitigation Strategy has been incorporated into the submission version of the Land Allocations Local Plan.

Consultation workshops

4.31 A workshop was undertaken in February 2011 attended by a wide range of stakeholders including neighbouring District Councils, Parish Councils, Natural England, Kent Wildlife Trust, KCC, Kent Downs AONB and other local bodies. This workshop focused on a range of Green Infrastructure issues in Dover District considering the priorities, themes and actions that underpin the GI Strategy. These are summarised below, but in no particular order of preference within the three categories:

Key Themes

- Teenage provision
- Accessibility – parking and cycling
- Connectivity
- Sustainable Communities
- Climate change
- Tourism and visitor economy
- Management

Key Objectives

- Promoting and branding the District
- Promoting, enhancing and maintaining existing assets including the District's parks.
- Protecting wildlife
- Encouraging community management
- Using GI to promote health
- Site management
- Visitor management

Potential Projects

- Teenage provision – potential project at St Margaret's
- Heritage Lottery Fund White Cliffs Landscape Partnership
- River Watch Project
- Information boards
- Enhanced car parking facilities
- Aylesham green spaces
- Enhanced accessibility network around Fowlmead Country Park
- Investigating access and management to private/historic gardens
- Strategic visitor centres

Summary

The current and future demand for GI has been established through surveys, workshops, responses to planning applications and a review of previous studies.

The importance of the Kearsney Abbey, Russell Gardens and Bushy Ruff remains an outstanding priority, particularly given its appeal to a wider public.

The high street GI survey identified that satisfaction levels with both the number and quality of GI spaces across the district are high. Deal beach and Kearsney Abbey are the most popular locations, followed by St Margaret's and the White Cliffs. The results indicate that residents primarily use GI assets close to their homes rather than travel across the district. Convenience of access by car is an emerging criterion, based on later survey work.



Amenity Open Space, Dover

5 Key Issues

5.1 This chapter summarises the key spatial issues and pressures relating to GI in Dover District. These draw upon the key issues identified in the District Council's Core Strategy and are supplemented by those highlighted in the evidence base in the preceding chapters, namely through the surveys and recent and emerging strategies.

5.2 GI issues and pressures are differentiated between those affecting the existing network and those anticipated to occur in relation to future housing and population in line with the Core Strategy growth plans.

Issues affecting the existing GI network

5.3 The Core Strategy was adopted in 2010. It contains a plan displaying the extent of the GI network at the time and highlights the known issues and opportunities from that time. This plan is replicated here (Figure 5.1) and the issues explored further in the context of today. The following paragraphs (5.4 to 5.16) are drawn from the 2011 strategy and the relevant activities that have occurred since then indicated. This illustrates the rapidity of change that is occurring in the district through, amongst other matters, regeneration. Following that is consideration of how the planning system interacts with ecosystem services and climate change mitigation and adaptation.

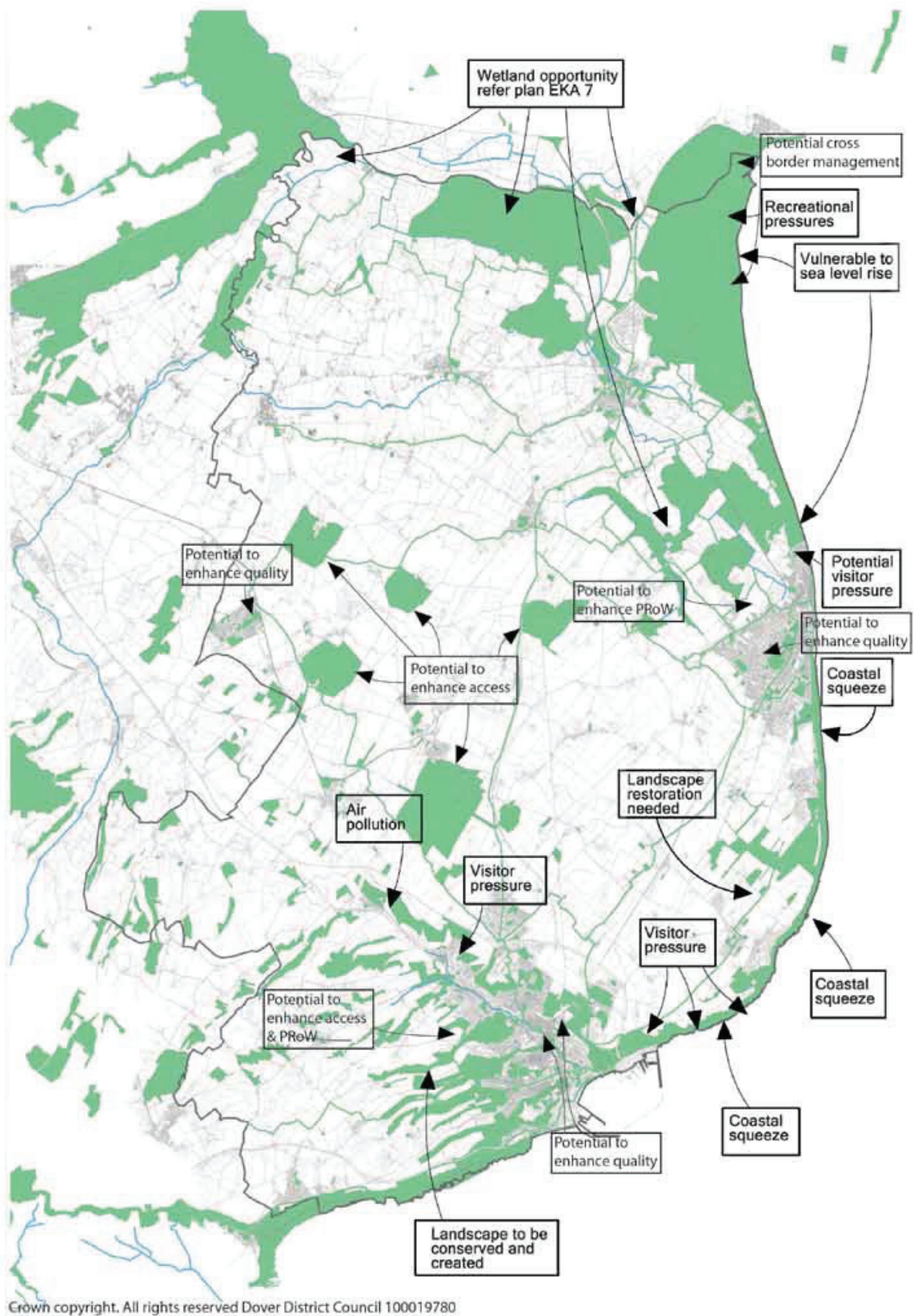


Figure 5.1 Existing GI Opportunities and Pressures

5.4 Wetland opportunity: ‘Integrated Coastal Management and Natural Park’ was a policy in the South East Regional Spatial Strategy and identified the Lower Stour catchment between Deal, Sandwich and south Thanet as an area for the extension and creation of wetland and other habitats and improved access for visitors. Although the policy is obsolete, it reflected general aspirations in the area that have been taken forward through a number of current initiatives in Dover which are related to this wetland opportunity and improved access:

- The purchase of three farms and ongoing establishment of an RSPB reserve at Worth Marshes:

A planning application has been submitted (2013) for the creation of a 80 ha wet grassland and 14 ha neutral grassland nature reserve at Willow Farm;

A planning application is proposed (2014) for the creation of 54 ha of wet grassland , 13 ha of fen, 9 ha of neutral grassland and 13 ha of scrub at Minnis Farm;

- The Sandwich Flood Defence Scheme, due for completion in 2015, will create a 1 in 200 years defence for the area and which includes the design of a large ‘wet grassland’ flood plain;
- The forthcoming England Coast Path, due for adoption in 2014, that will increase sustainable access to the area.

5.5 Recreational pressures: highlighted at Sandwich and Pegwell Bay through the Pegwell Bay Bird Disturbance Study part of the protected European sites Natura 2000 Network, attracting visitors from both Dover District and Ramsgate.

- Visitor surveys have focused on the sources of recreational pressures and work is now underway through EKGI to consider the wider issues of recreational pressures in the light of large-scale housing developments throughout East Kent.

5.6 Cross border management: enhanced cross border management could support enhanced management of Sandwich and Pegwell Bay.

- The Localism Act 2011 puts a ‘duty of cooperation’ on local authorities which supports the concept of EKGI and the work currently being undertaken with Thanet, Canterbury and Shepway Councils.
- EKGI is supporting a project, due for completion in 2014, on enhancing habitats of priority species of bumblebee across east Kent

5.7 Sea level rise: areas at Sandwich and Pegwell Bay and to the north of Deal that area vulnerable to flooding.

- Both Deal and Sandwich Flood Defence schemes will protect a greater part of the coast and hinterland, but the Sandwich spit, which is currently accreting will remain to be affected by both sea level rise and expected increased storm events

5.8 Visitor pressure: areas along the coast that are part of the protected European sites Natura 2000 Network as well as Kearsney Abbey and Russell Gardens experience high visitor numbers, particularly in the summer months.

- The creation of the England Coast Path is intended to increase access to the coast, but in a managed manner. There is a potential to utilise this to help relieve pressure on the most sensitive parts of the European sites;
- Management of visitor pressure associated with new housing is being undertaken through both district-wide and site-specific mitigation strategy obligations on developers and this is being considered in the wider context through EKG work;
- The 'Up On The Downs' Landscape Partnership Scheme, part-funded by the Heritage Lottery Fund is undertaking works at Samphire Hoe and the National Trust's White Cliffs site to increase managed access to these sites;
- The Parks and Amenity Open Space Strategy has targeted Kearsney Abbey, Russell Gardens and Bushy Ruff as an integrated parks area for improved management in order to achieve Green Flag status and work is being undertaken for a Heritage Lottery Grant application to assist this;
- The Parks and Amenity Open Space Strategy is promoting the creation of a strategic-scale park for Sandwich, to include enhanced, but managed access to open spaces within the town and, through linking with the England Coast Path and other public rights of way, extensive circular walks in the north of the district. The potential for enhancing linkages between Discovery Park and Sandwich town is also being considered.

5.9 Coastal squeeze: coastal erosion is putting resources under pressure that may be intensified by visitors and will require increased land management.

- In 2012 the National Trust raised £1.2 million pounds to purchase a 'missing link' of the White Cliffs partly to counteract coastal squeeze of the cliff top grassland.

5.10 Landscape to be conserved and created: parts of the AONB that would benefit from enhancement and protection from overuse for recreation or other activities.

- A re-assessment of some of the landscape character findings for the South Foreland section of the AONB indicates that earlier assessment lacked historical insight into the farmed landscape here and also neglected the cultural significance of some 20th C artefacts, such as the Chain Home Radar Masts (now listed, together with later structures associated with the Cold War);

- The 2013 resolution to grant permission for housing in the AONB at Farthingloe, as part of a wider outline application, has been accompanied by the concept of a 'Countryside Access Area' which may result in the conversion of 39 ha of arable farmland to accessible grassland and provide a multi-million improvement package for parts of the Western Heights, significantly increasing the accessibility of this scheduled ancient monument.

5.11 Landscape restoration: improvements to the condition of Kingsdown to Walmer Local Wildlife Site:

- A management plan has been drawn up, but some of the proposals are controversial and have not been taken forward. However, some aspects of the plan are due to be taken up as an adjunct to development in the area.

5.12 Potential to enhance quality: a number of the District's parks and open spaces would benefit from investment to improve the visitor experience, notably in Aylesham, Victoria Park in Deal and Connaught Park and Pencester Gardens in Dover.

- Refurbishment of the Pergolas has been undertaken at Russell Gardens;
- In Connaught Park, refurbishment of the pond and Victorian Shelter was undertaken in 2013 and The Connaught Park Appreciation Group works with the Council to design and plant out bedding schemes;
- Partnership with Brighter Dover and Dover Town Council has resulted in a new permanent planting scheme in the Market Square, enhancing the ambience of this civic space;
- Play area improvements in parks since 2010 have included:
 1. Renovation of Victoria Park play area in Deal;
 2. Complete renovation of Connaught Park in Dover;
 3. Renovation and extension of Kearsney Abbey in Dover;
 4. Partial renovation of Russell Gardens in Dover.

5.13 Beyond the parks in Dover there has been:

1. Complete renovation of Northbourne Avenue play area in Dover;
2. Partial renovation and extension of Elms Vale play area in Dover;
3. Improvements at Sheridan Road play area in Dover.

5.14 Elsewhere in the district the Council has assisted local communities in play space projects, for instance at Capel-le-Ferne, St Margaret's-at-Cliffe, Northbourne, and Poulders Gardens, Sandwich.

5.15 Potential to enhance PRow: Dover has the 4th most extensive network of PRow in Kent. However, certain areas would benefit from improved PRow to increase access to GI. In some instances this can be integrated with improved accessibility to areas designated by the Countryside Rights of Way Act 2000.

- A draft consultation on The England Coast Path, running from Ramsgate to Folkestone, was undertaken in late 2012 with submission of the route to the Secretary of State in late 2013.
- KCC undertook a review of The Countryside and Coastal Access Improvement Plan, 2007- 2017, in 2012. The 2007 plan identified a deficit in the provision of cycling and equestrian routes
- The recently completed River Dour Greenway is a shared space where families, cyclists and walkers can enjoy the River Dour. The Greenway roughly follows the route of the River Dour to link Buckland Mill to Dover Sea front, and links in to other regional and national cycle routes in the area.
- Using developer contributions, KCC upgraded to bridleway status the existing footpath, EB12, linking the North Downs Way to Archer's Court School.
- Deal is one of just two settlements (along with Elham) in Kent that are part of the 'Walkers are Welcome' scheme in targeting the walking tourism market;
- Developers throughout the district are encouraged to enhance recreational usage of PRow for future residents;

5.16 In addition to these key issues highlighted on the diagram, other aspects of the District's GI should be considered for enhancement. These are:

- Improvements to a number of the District's recreation grounds, specifically Crabble Athletic Ground; Danes Recreation Ground; Elms Vale Recreation Ground; and Marke Wood Recreation Ground. (As advised in previous Council studies);
- Further enhancement and management of Whinless Down Local Wildlife Site and South Foreland SAC.

5.17 Ecosystem Services: Although ecosystem services have had a role in the planning system for many years, their role is becoming increasingly recognised. The Core Strategy discusses issues concerning agricultural land, water, and air quality. In respect of water, the Environment Agency is the lead authority for implementing the EU Water Framework Directive which requires:

- improvements on inland and coastal waters through better land management
- protecting inland and coastal waters from diffuse pollution in urban and rural areas

- promoting wiser, sustainable use of water as a natural resource
- creating better habitat for wildlife that lives in and around water
- creating a better quality of life for everyone

5.18 Coming to the fore in recent years has been a concern regarding the decline in populations of pollinating insects and disease problems associated with importing non-native insects for that role. Although this is a matter that usually falls outside the remit of planning, it can provide a key to allow people to understand the concept of ecosystem services. To that end, DDC are leading a project on enhancing bumblebee habitat that is being taken forward with EKGI partners, KCC, and Natural England, together with Bumblebee Conservation and the Short-haired Bumblebee Reintroduction Project.

5.19 Climate Change: The Core Strategy recognises that climate change is likely to lead to more extreme weather events, including hotter and drier summers, flooding and rising sea levels and permanent changes to the natural environment. In response, the forecast impacts of climate change should be mitigated, or adapted to: in particular the water environment and biodiversity.

5.20 In respect of mitigation, flood defences are being improved at Deal and at Sandwich. In both cases, biodiversity enhancement is also being sought, in accord with the Water Framework Directive, although the Deal site is so constrained that enhancement is very limited. All major housing sites now should incorporate sustainable drainage. This should be by the use of swales and on-site balancing ponds to enable infiltration to the ground, rather than surface water run-off, although in urban areas the use of tanks may be necessary.

5.21 Ecological adaptation was considered at the time of the Core Strategy, in which the enhanced network as shown in Figure 7.1 takes account of Biodiversity Opportunity Areas and also seeks to consolidate areas for biodiversity. This approach accords with the theme of 'bigger sites, better managed sites, and more inter-connected sites' in **Making Space for Nature: A review of England's Wildlife Sites and Ecological Network** and is explored more in chapter 6.

Issues affecting the future GI network

5.22 Figure 5.2 displays the extent of the existing GI network and highlights what the anticipated future issues and opportunities associated with housing growth were expected to be at the time of the 1st edition of the strategy in 2011.

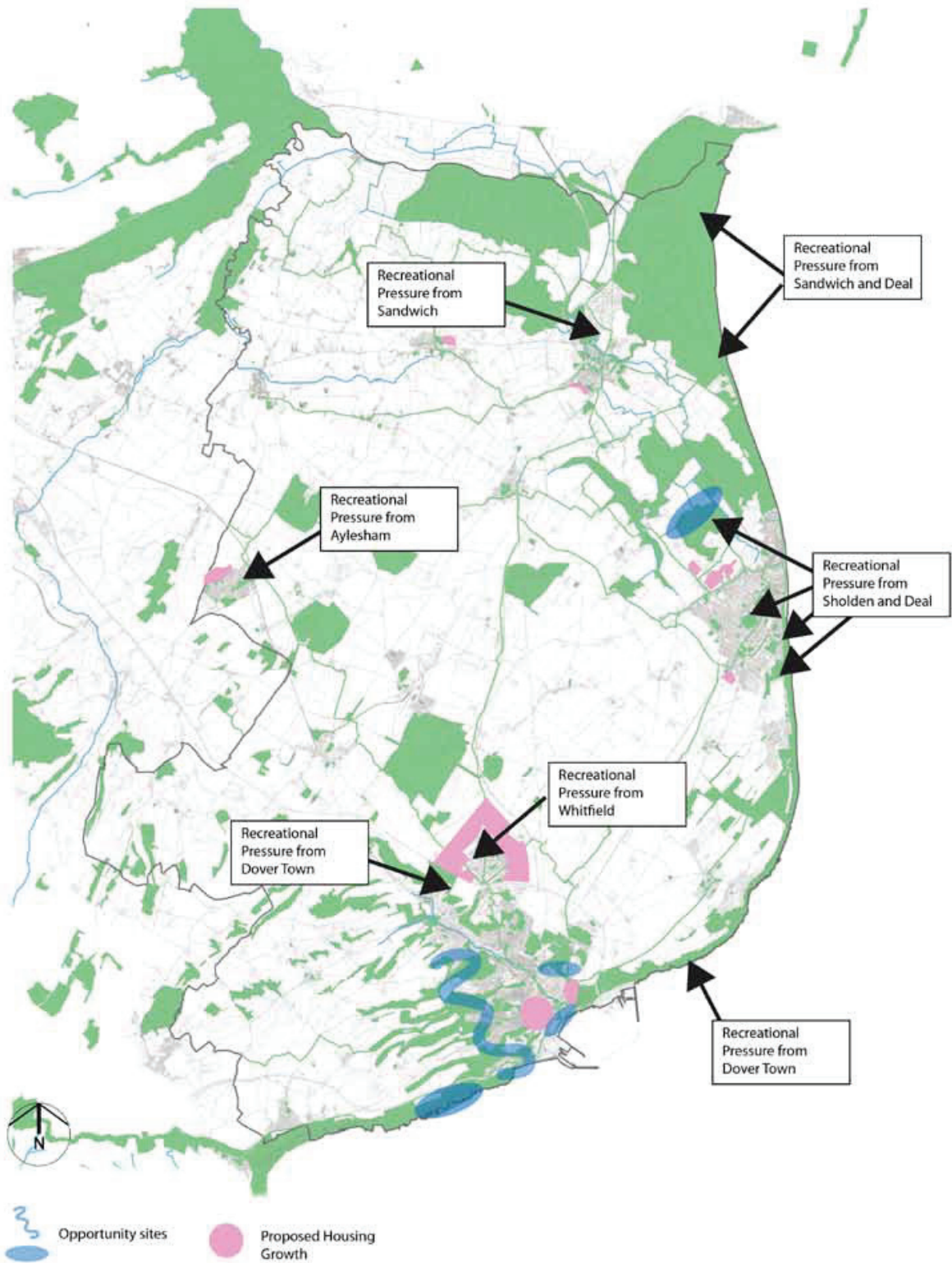


Figure 5.2 Future GI Opportunities and Pressures

5.23 Since that time, there have been a number of changes:

- While recreational pressure on Sandwich Bay remains, the Council is taking forward the Thanet Coast and Sandwich Bay Mitigation Strategy to moderate any observed increase in visitor numbers;
- With the evolution of Discovery Park, both opportunities and pressures arise:
 - A potential biomass CHP plant at Discovery Park could lead to a re-invigorated woodland coppice industry throughout the Southeast;
 - A potential residential development at Discovery Park could increase recreational pressure at Pegwell Bay and require mitigation in liaison with Thanet DC.
- Outline planning permission has been granted for a major residential development at Farthingloe, including provision for up to 521 houses, in the Kent Downs AONB. This is part of a multi-faceted proposal designed to stimulate regeneration for Dover town.
- The submission Land Allocation Local Plan has identified the following number of houses to be allocated in addition to the strategic allocations in adopted Core Strategy:

Town/Village	Total Number of Dwellings
Dover	1,010
Deal	780
Sandwich	230
Ash	200
Capel-le-Ferne	100
Eastry	155
Shepherdswell	30
East Langdon	10
East Studdal	30
Elvington and Eythorne	75
Great Mongeham	15
Kingsdown	10
Lydden	40
Nonington	35
Preston	25

Town/Village	Total Number of Dwellings
St Margaret's	7
Woodnesborough	45
TOTAL	2797

Table 5.1

5.24 A further exploration of these issues raises the following considerations which will inform the GI Strategy:

- **Dover.** The level of development planned for Dover is likely to increase recreational activity at the White Cliffs, as well as Kearsney Abbey and Russell Gardens. In addition to the changes planned for these sites, other sites may help to relieve this pressure. These include Connaught Park, Pencester Gardens and Samphire Hoe. In the longer term, the changes at Western Heights and land to the west may also help ease resource pressure, but would require careful management to ensure that wildlife interest is not compromised.
- **Whitfield.** Growth at Whitfield is anticipated to increase recreational pressure on local recreational GI, particularly Kearsney Abbey and Russell Gardens;
- **Deal and Sholden.** Growth may increase recreational pressure on Sandwich Bay, Deal Beach, Victoria Park and Marke Wood. Enhanced access to Fowlmead Country Park, as is being brought forward in association with development in Sholden, may present an opportunity to relieve this pressure;
- **Sandwich.** Growth in Sandwich may increase recreational pressure on local amenity, the Butts and Ropewalk, as well as Gazen Salts Nature Reserve. Developing the concept of a park for Sandwich should enable funding to be targeted here to increase capacity. Growth may also impact Sandwich Beach and Bay and Pegwell Bay. The England Coast Path has a role here in terms of visitor management. Future development at Discovery Park could increase recreational pressure on Monks Wall nature reserve and Local Wildlife Site.
- All development within the district may, in combination, increase recreational pressure at Sandwich Bay.

5.25 In addition to the above issues highlighted on Figure 5.2, there is an as yet undefined risk that unmanaged growth may also put pressure on:

- Natura 2000 site of Lydden Temple Ewell. (As advised by KWT); and
- Local Wildlife Sites at Old Park Hill, Coombe Hole, Gorse Hill, Western Heights, Long Hill and Buckland Valley. (As advised by KWT)

Summary

This chapter has highlighted the key issues and some emerging opportunities relating to the District's GI network. Key issues relate in particular to existing recreational and visitor pressures and the implications of climate change and opportunities to enhance access and to promote integrated management. These are differentiated between those known to affect the existing network and those anticipated to be caused by future housing growth. The issues identified form the basis of the District's GI strategy and Action Plan.



Connaught Park, Dover



6 Green Infrastructure Strategy Framework

6.1 As set out in Chapter 1, the GI network comprises three broad groups of asset type: civic amenity, linear and biodiversity, each describing the major role within a multifunctional space. This section takes forward considerations of those assets and establishes a framework in which the expectations and limitations of Council action are outlined and describes how the strategy can work within these.

Civic Amenity Assets

6.2 Most civic amenity assets, such as parks, are within the control of the local authority and these, together with some linear assets can be created and provided in appropriate quantity and quality, as necessary, to satisfy the needs and desires of local people as the growth agenda is taken forward. The requirements in terms of quantity and quality of some of these assets with development are considered in detail in the Parks and Amenity Open Space Strategy 2013, the Review of Play Area Provision 2012 -2026 and the forthcoming Playing Pitches and Outdoor Sports Facilities Strategy.

6.3 Civic amenity assets beyond the control of the Council generally include the provision of community gardens and allotments which fall to the parish or town councils; historic parks which are designated by English Heritage; and Village Greens and Commons that are designated by KCC.

Linear Assets

6.4 Linear features such as public rights of way, permissive paths and cycle paths are designated by Kent County Council (KCC). The Council works with KCC in promoting permissive paths and cycle paths, and the local planning authority has an important role in ensuring that where development may affect such assets, the value of the asset is at least maintained, if not enhanced, to encourage healthy exercise and provide pleasant and legible links to the wider environment.

6.5 Beaches and Foreshores were not considered as assets in terms of sport and recreation in the past (for instance, PPG 17 did not mention either), despite their popularity for both sport and recreation. An ever-increasing number of sports now rely on beaches, whether it is access for swimming, or launching of craft, while the recreational attributes of beaches contribute a major revenue stream for all coastal authorities. The lack of consideration of these assets revolves around the difficulty of defining their spatial, temporal and physical characteristics, due to tide, seasonality and structure, despite planning controls being operative to the mean low water line. Given the importance of the coast in respect of relationship between recreation and protecting biodiversity, the role of these assets in GI should be considered.

6.6 Dover has a rich coastline, comprised, in the main, of sites protected for biodiversity, at the European level (Dover Eastern Docks to Kingsdown Beach and Sandown Castle to Sandwich Bay and Shellness), the National level (The Folkestone

Warren to Shakespeare Beach in addition to the European sites) and the Local level (Kingsdown Beach to Walmer Green). Where biodiversity predominates in these linear assets, they are considered below.

Biodiversity Assets

6.7 Biodiversity differs from the above asset types as it comprises species and habitats that derive from the natural world that have limited compatibility with human manipulation of the environment and which development can threaten.

6.8 The relevance of this GI strategy depends, in part, to contemporary information. With the recent and forthcoming publication of up-to-date detailed considerations of civic amenity assets elsewhere, it would be superfluous to repeat them here. Likewise, the non-biodiversity facets of linear assets are subject to review elsewhere. The parameters dictating requirements for those civic amenity assets under control of the Council are locally derived and are subject to local consultation. However, for biodiversity, a far wider outlook is needed.

6.9 Biodiversity is a matter of wider, even global concern and the Council must adhere to criteria laid down through international and national accords. As such, far less detailed consideration has, in the past, been given to local approaches to biodiversity conservation. This GI strategy is an appropriate vehicle for assessing the wider context for biodiversity conservation in somewhat greater depth.

6.10 It is widely acknowledged that, in part through human activity, there is a global decline in biodiversity from which the UK is not immune. For instance, in 2010, the Natural History Museum reported that over 100 species in the UK had been lost during the last hundred years.

6.11 However, as knowledge of the natural ecosystems increases, there is a growth in understanding in how some biodiversity assets may be restored, enhanced, or even created, such as in Biodiversity Opportunity Areas (BOAs). This has been reflected in the implementation of the UK Biodiversity Action Plan (BAP), an outcome from the Rio Convention on Biological Diversity, 1992. This set out the conservation approach for 1,150 priority species and 65 habitats across the country. There are currently 436 action plans for the UK's most threatened species and habitats.

6.12 The International Year of Biodiversity in 2010 and the Convention on Biological Diversity Conference at Nagoya have led to much recent activity on the national and global scale, as indicated in Table 6.1. These have an increasing emphasis on the economic role of ecosystem services. For instance:

“The services that nature provides us with, like clean water, clean air, fertile soil, food, are not only crucial for the well-being of human kind, they also represent an astronomical economic value. According to economists, each year we lose 3% of GDP due to the loss of biodiversity. That costs the EU €450

billion year after year. Compared to these figures, investing €5.8 billion per year in Natura 2000 is a bargain” (rapporteur Gerben-Jan Gerbrandy (ALDE, NL) quoted in the EU Biodiversity Strategy, 2011)

Year	Activities
2010	'Making Space for Nature: A review of England's Wildlife Sites and Ecological Network' (Report to Defra)
2010	Convention on Biological Diversity, COP 10 at Nagoya, Aichi, Japan (UN)
2011-2020	United Nations Decade on Biodiversity (UN)
2011	Our life insurance, our natural capital: an EU biodiversity strategy to 2020 (EU)
2011	Government response to the making space for nature review (Defra)
2011	UK National Ecosystem Assessment (part Defra)
2011	The Natural Choice: securing the value of nature (Defra)
2011	Biodiversity 2020: A strategy for England's wildlife and ecosystem services
2012	Microeconomic Evidence for the Benefits of Investment in the Environment (NE)
2013	Green Infrastructure (GI) - Enhancing Europe's Natural Capital (EU)
2013	Biodiversity 2020: simple guide and progress update July 2013 (Defra)

Table 6.1

6.13 Many of the outcomes from these activities identify and reinforce the relationship between society and biodiversity. As such they have direct influence on GI strategies.

6.14 However, as GI strategies become increasingly complex, the underlying message regarding diminishing biodiversity can be overlooked. Therefore, in consideration of delivery of targets, this strategy returns initially to the Nagoya goals (Table 6.2) to ensure that the central role of biodiversity in GI is not lost:

Goal A	<i>To address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society</i>
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Goal B	<i>reduce the direct pressures on biodiversity and promote sustainable use.</i>
Goal C	<i>To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity.</i>
Goal D	<i>enhance the benefits to all from biodiversity and ecosystem services.</i>
Goal E	<i>To enhance implementation through participatory planning, knowledge management and capacity building.</i>

Table 6.2

6.15 The goals agreed at Nagoya have been adopted both by the EU (**EU Biodiversity Strategy to 2020**) and for England (**Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services**). The goals and some of the 20 targets embedded in them (the Aichi Targets) can be taken forward as targets for the GI biodiversity assets in planning.

6.16 '**Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services**' deals multi-sectorally with the overall relationship between biodiversity and ecosystem targets for England, the EU biodiversity strategy and the Aichi targets, producing a set of 22 key actions under four priority areas:

1. *A more integrated large-scale approach to conservation on land and at sea*
2. *Putting people at the heart of policy*
3. *Reducing environmental pressures*
4. *Improving our knowledge*

6.17 While there is potential to contribute to delivery of some of the 22 key actions, others are beyond the remit of the Council (e.g. the marine planning, agricultural, and forestry sectors). However, there are activities that cut across sectors and key actions. For instance, once operational, the Estover Biomass Combined Heat and Power Plant at Discovery Park will have a highly significant impact on forestry management in Kent and beyond.

6.18 The essential message from the above is that biodiversity continues to decline and that not only must protected sites be maintained, if not enhanced, biodiversity should also be promoted outside these sites. For example, in May 2013, the EU published a communication - **Green Infrastructure (GI) - Enhancing Europe's Natural Capital**, in which the relationship between the Natura 2000 network of European sites and wider biodiversity was stated:

Natura 2000 is an ecological network established under the Habitats and Birds Directives. ... It was established mainly to conserve and protect key species and habitats across the EU, but it also delivers many ecosystem services to human society. The value of these services has been estimated at EUR 200-300 billion per annum. The work done over the last 25 years to establish and consolidate the network means that the backbone of the EU's GI is already in place. It is a reservoir of biodiversity that can be drawn upon to repopulate and revitalise degraded environments and catalyse the development of GI.

6.19 However, it may be the case that not all biodiversity interest can be retained on a development site. The White Paper, **The Natural Choice : securing the value of nature** (2011) raises the potential for voluntary biodiversity offsets for when development means that some residual harm to biodiversity assets cannot be avoided. According to the White Paper:

'Biodiversity offsets are conservation activities designed to deliver biodiversity benefits in compensation for losses in a measurable way.

Good developments incorporate biodiversity considerations in their design but are still likely to result in some biodiversity loss. One way to compensate for this loss is by offsetting: the developer secures compensatory habitat expansion or restoration elsewhere.'

6.20 Biodiversity offsetting is designed to compensate for residual losses that may occur after all other measures have been taken. Offsetting has been carried out elsewhere, but the results have been mixed. Biodiversity offsetting pilots were initiated in 2012 in six areas in England, but as of 2013 there have been no outcomes. It may gain significance over the coming years, as the UK Government sees it as a way of speeding planning while ensuring environmental gains. A Green Paper **Biodiversity offsetting in England** was published in September 2013.

Monitoring delivery of biodiversity assets

6.21 The monitoring of delivery of civic amenity and non-biodiversity linear habitats is relatively straight-forward in that the elements that development generates can be measured.

6.22 The delivery of biodiversity assets is more complex, although through ARCH - Assessing Regional Habitat Change (Interreg IVA-Two Seas Programme) it is possible to achieve improved knowledge and monitoring of habitats and key species in Kent. Appropriate mapping resources for Dover are contained within ARCH through the 2012 Kent Habitat Survey (KHS) to enable areas of habitat to be identified and measured with a high degree of precision. This survey also indicates how important certain habitats are in Dover:

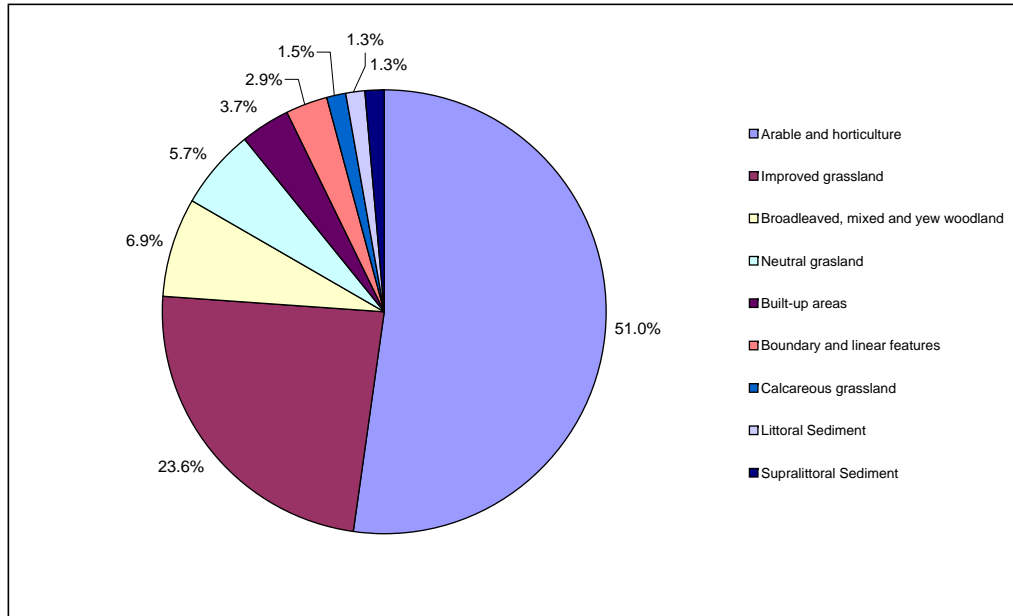


Figure 6.1 The Proportion of Priority Habitats within Dover (from Kent Habitat Survey 2012)

6.23 Reflecting on the above, it is of note that, although calcareous grassland contributes only 1.5% of priority habitats in Dover, it is 32.2% of the Kent total.

6.24 The Biodiversity Action Reporting System (BARS) aims to collate and share information about specific action taken to benefit biodiversity within the UK. It has been recently updated (BARS 2) to enable reporting on the **Biodiversity 2020** targets and the application of this to Council work is considered below.

6.25 BARS 2 lists 7 types of action type, each type split into various objectives. These are listed in Table 6.3, below, which indicates those which are considered to be capable of being reported upon by the Council

Action type	Objective	Can the Council Contribute?
Habitat Management	Maintain extent and quality in good condition	Yes
	Maintain extent and Improve quality	Yes
	Increase by restoration	Yes
	Create	Yes

Action type	Objective	Can the Council Contribute?
Species Management	Secure species-specific needs within habitat	To a limited extent
	Take stock for re-establishment	No
	Populate new location through re-establishment	Yes
	Control invasive or other non-native species	Yes
	Control native predators or competitors	No
Survey or Monitoring	Collate/share information to create baseline	Yes
	Gather new data for baseline	Yes
	Measure impact of management	Yes
	Measure/detect change in status of species or habitats	Yes
Education or Raising Awareness	To raise awareness and improve understanding of biodiversity issues	Yes
	To provide formal biodiversity education/qualifications	No
	To provide wildlife management training and good practice advice	Only with partners
	To develop or improved biodiversity focused partnerships	Yes
	To promote value and use of LWS, attract visitors and improve facilities	Yes
Site Protection/Designation	Review or extend existing boundary of a protected or designated site	No
	To enforce protection of a protected/designated site or feature	No
	To establish a new protected/designated site	Yes (LNR)

Action type	Objective	Can the Council Contribute?
Policy or Legislation	To review/improve policy to support wildlife protection	Yes
	To enforce existing legislation/policy not specifically related to protection of a designated site	Yes
Research	To improve management techniques	No
	To better understand species populations and their dependencies	No
	To better understand the genetic structure of species populations, their distribution and status	No
	To better understand the impact of native competitors and/or predators	No
	To better understand the impact of or control of disease	No
	To better understand the impact of non-native and/or invasive species	No
	To better understand the causes and threats of wildlife loss/decline	Yes
	To better understand natural environment processes and ecosystem dynamics	No
	To better understand the impact of human activity	Yes
	To better understand the impact of Climate Change	No
	To identify/improve biodiversity indicators	?
	To better understand the economic /social value of natural resources and marketing of products	No

Table 6.3

6.26 It is possible through GI/landscape master-plans to identify areas and appropriate linear features associated with a development that should be enhanced for biodiversity and this could form part of any reporting/monitoring scheme.

Summary

The framework for a GI Strategy has been updated and provides a clear understanding of Dover GI assets in terms of East Kent GI broad typology. The broad requirement of civic amenity is enabled through updated strategies. Other non-biodiversity assets are relatively easy to measure. For biodiversity, the provision of detailed current habitat mapping will enable biodiversity losses and gains to be measured and reported on through Biodiversity Action Reporting Scheme 2. With the emergence of Biodiversity Offsetting, residual biodiversity losses should be avoided.



Dexter cattle grazing Western Heights, Dover

7 Green Infrastructure Strategy Themes

7.1 This section sets out the GI Strategy Themes for Dover District. The 2011 strategy consisted of six spatial themes which were established in response to the issues and opportunities. That approach, in the main, is retained for this strategy with the addition of landscape. Landscape provides both a setting for, and an aesthetic component of green infrastructure.

- Accommodating population growth and regeneration
- Visitor Management
- Landscape
- Conserve and Create
- Restore and Conserve
- Connections and Corridors
- East Kent GI (EKGI)

7.2 The original themes are set out diagrammatically in figure 7.1

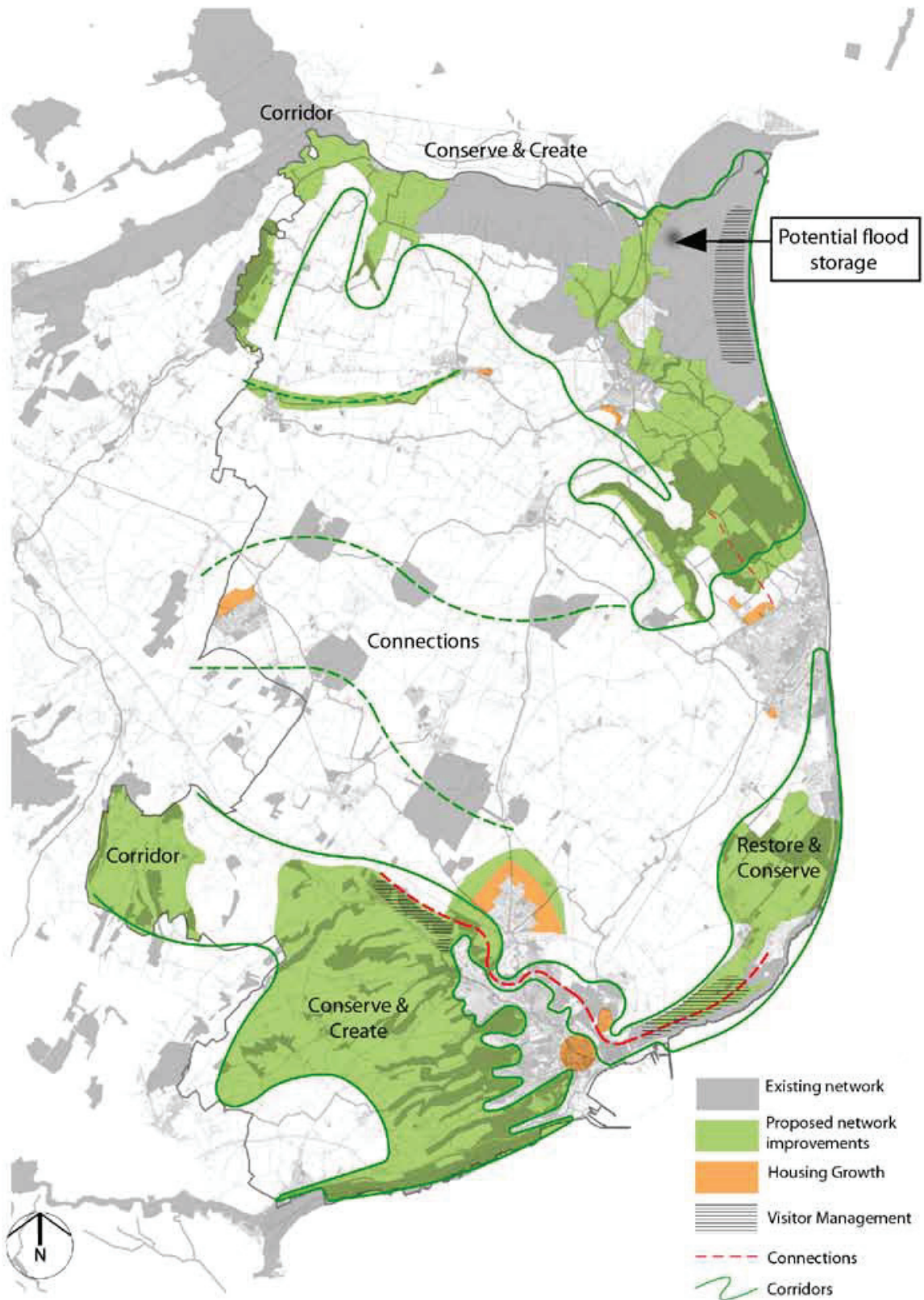


Figure 7.1 Themes in GI

7.3 Figure 7.1 is derived from the Local Plan Core Strategy, which, in part, utilised terminology from the Kent Downs AONB 2004-2009 Management Plan, specifically:

- ‘Conserve and Create’: actions that conserve distinctive features and features in good condition, whilst creating new features or areas where they have been lost or are in poor condition.
- ‘Restore and Conserve’: actions that encourage the conservation of distinctive features and features in good condition, whilst restoring elements or areas in poorer condition and removing or mitigating detracting features.

7.4 The Kent Downs AONB Management Plan has been revised since then (2009 – 2014), with consultation on the draft 2014-2019 Plan undertaken in 2013. However, the concepts embodied in ‘Conserve and Create’ and ‘Restore and Conserve’ are well-founded in landscape character assessment and have been retained.

7.5 It is important that this strategy is read in conjunction with the following strategies and schemes, some already mentioned in this document:

- Biodiversity 2020: A Strategy for England’s Wildlife and Ecosystem Services
- DDC Parks and Amenity Open Space Strategy 2013
- DDC Review of Play Area Provision 2012 -2026
- Forthcoming DDC Playing Pitches and Outdoor Sports Facilities Strategy (2013)
- The KCC Countryside and Coastal Access Improvement Plan, 2007- 2017
- Up on the Downs, the White Cliffs Landscape Partnership Scheme Landscape Conservation Action Plan, (2012)

Accommodating Population Growth

Overview

7.6 The Core Strategy sets out the District’s growth agenda and in relation to GI states that development will only be permitted if harmful impacts on the GI network can be mitigated through quantitative or qualitative measures. In considering a strategic approach, there must be an understanding of what assets may reasonably be under the influence of the Council.

7.7 As set out in Chapter 1, the GI network comprises three broad groups of asset type: civic amenity, linear and biodiversity, each describing the major role within a multifunctional space.

7.8 The table below indicates, in principle, how these GI assets may be affected, if impacted by increased housing. For simplicity, the impacts may be identified a positive (+), neutral (0), negative (-), or unknown (?). The rationale for assessing impact is then described in paragraph 7.9.

EKGI Asset Type	Dover DC GI Asset Type		Impact of Population Growth
Biodiversity	Natural and Semi-natural Open Space	European/Ramsar Sites	-/0
		SSSI	-/0
		LWS	0/-
		BAP	+/0/-
Civic Amenity	Accessible Green Space		+/0/-
Civic Amenity	Outdoor Sports Facilities		+/0
Civic Amenity	Children's Play Space		+/0
Civic Amenity	Community gardens and allotments		?
Civic Amenity	Historic Parks		0/-
Civic Amenity	Village Greens and Common land		0/-
Linear	Beaches and Foreshores		0/-
Linear	Public Rights of Way and permissive trails		+/0
Linear	Cycle paths		+/0

Table 7.1

General Principles

7.9 For European and Ramsar sites and SSSI, population growth should not have significant impact, reflecting the high level of protection these sites are afforded. However, it is probable that extra measures, in the form of mitigation, are needed to maintain the integrity of any site. This reflects the accessibility of, and risk of disturbance to these sites and their special interest. The special case of European and Ramsar sites is dealt with at the end of this section.

7.10 For Local Wildlife Sites (LWS), the likelihood of no impact is greater, as many of these sites are on private land. However, much Open Access Land is also LWS. Where there may be negative impact, the mitigation should neutralise impacts. BAP priority habitat sites are similar to LWS except in one respect, in that managing of accessible green space for biodiversity enhancement could increase the quantity of BAP priority habitat.

7.11 The application of Council standards in respect of parks and amenity open spaces, children's play areas and outdoor playing pitches and sport facilities should ensure that population growth does not, overall, have a negative impact on existing facilities. However, popular existing parks, such as Kearsney Abbey, may still be subject to increased recreational pressure. This highlights the need to consider the quality of new open spaces, as well as the quantity, that are provided as part of development.

7.12 Community gardens or allotments may be proposed as part of development, but management of these falls to town and parish councils. However, where neighbourhood plans are being proposed, such facilities should be encouraged.

7.13 Historic parks are primarily in private hands. Although population increase is unlikely to impact these, any such impacts are likely to be negative, albeit restricted to public rights of way, in terms of disturbance to the tranquillity of the existing parks.

7.14 Existing village greens and common land may come under increased recreational pressure. There is a possibility that development triggers the declaration of new sites. However, it is highly unlikely that any new declarations would come on land that had not been previously identified as being functioning GI.

7.15 The only beaches and foreshores outside of areas designated for biodiversity are associated with Dover, Deal and Walmer. These are popular year-round and while increased population is unlikely to have any effect, there may be limitations on the carrying capacity of these for certain activities, such as shore angling.

7.16 Kent County Council is actively engaged on improving public rights of way, permissive trails and cycle paths and uses development as a tool for this purpose.

7.17 When this strategy was first developed, the changes to GI that were identified related to housing growth, but as regeneration builds momentum, commercial sites can also contribute to GI, such as Discovery Park.

European and Ramsar Sites

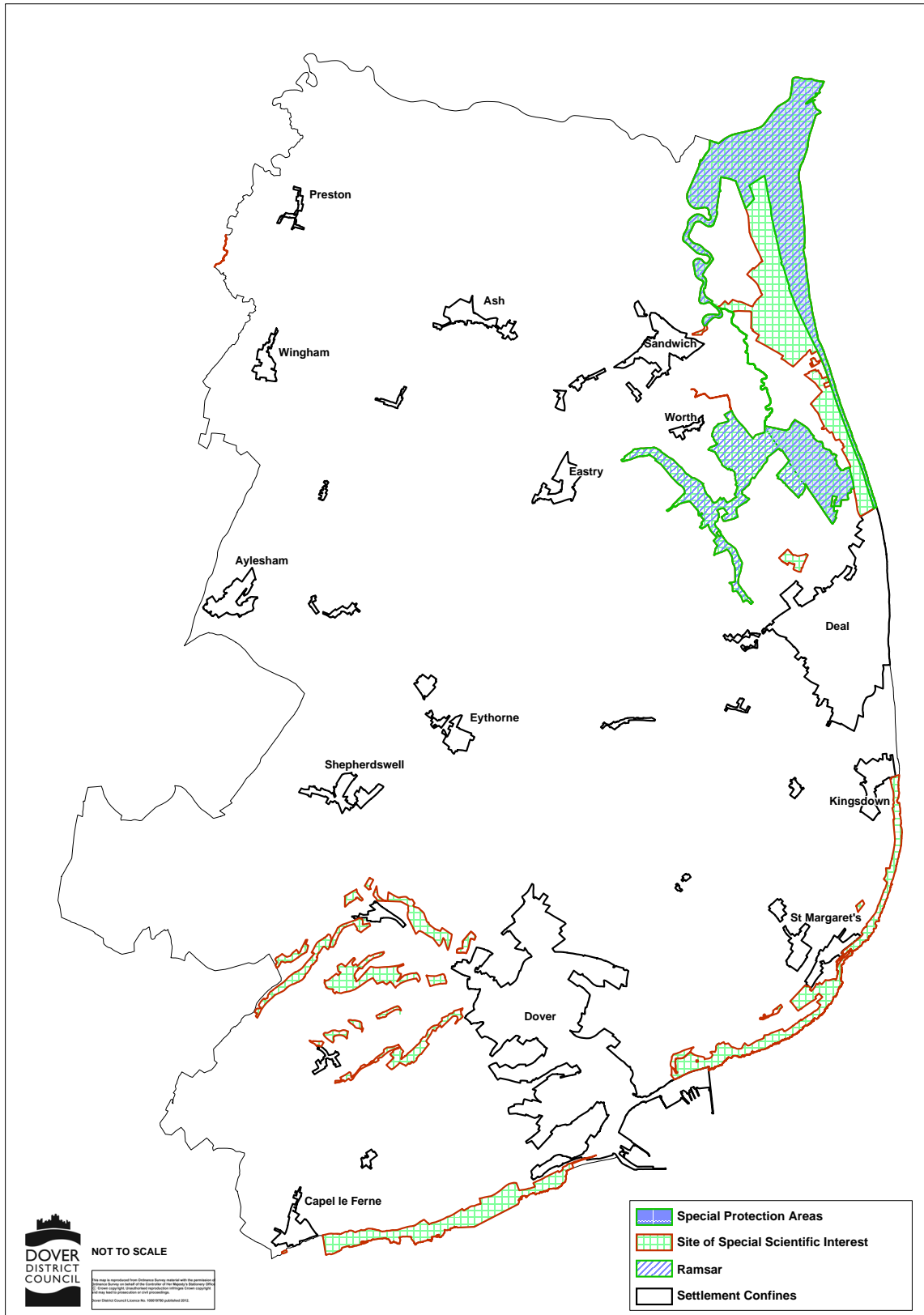


Figure 7.2 European and Ramsar Sites

7.18 The relationship between accommodating population growth through development and potential impacts on European sites is particularly complex and subject to both statute and case law. Additionally, planning policy (NPPF paragraph 118) requires that Ramsar sites be considered as if they were European sites.

7.19 The GI and visitor surveys have identified that residents of areas planned for further housing growth, such as Sandwich, are regular visitors to protected sites and therefore future housing expansion is likely to exacerbate recreational pressures on these areas. The main concerns of increased recreation, often associated with dog-walking, relate to trampling, nutrient enrichment and species disturbance which could affect grasslands and coastal wetlands respectively. Air pollution (road traffic) and urbanisation effects (e.g. fly tipping, fire, vandalism etc) could also affect sites close to main roads and urban areas. Pollution is also a concern for regenerating sites, such as elements of Discovery Park.

7.20 Although there are exceptions for projects involving 'Imperative Reasons of Overriding Public Importance', the vast majority of applications for housing and regeneration must demonstrate that development would not result in any significant adverse impact on European or Ramsar sites. For such sites, the 'Precautionary Principle' applies and the onus for demonstrating no adverse impact is on the local planning authority. Thus, where development proposals may have an impact on European and Ramsar sites, the local planning authority undertakes a screening process to determine whether such proposals could have significant effect. Where necessary, identification of specific mitigation measures must be undertaken and incorporated into proposals. Mitigation options for developments have been identified as:

- **Deflection of Impact:** The provision of Suitable Alternative Natural Greenspace (SANGS) has been developed by Natural England in response to recreational pressures on the Thames Basin Heaths SPA. It has been demonstrated through development in Dover (Whitfield Urban Expansion) that the SANGS approach is feasible, albeit that the nature of the alternative greenspace must be appropriate for the circumstances.
- **Management of Sites:** Good management has been shown to reduce recreational pressures on nature reserves. This may require funding for monitoring over an extended period to evaluate impacts and wardening. It is particularly important for sites where the provision of SANGS cannot be achieved. This approach has been agreed as a way forward for the Thanet Coast and Sandwich Bay SPA and Ramsar sites.
- **Behaviour Change:** Reducing a reliance on the private car and the promotion of healthier lifestyles means that recreational impacts on more remote sites are likely to be reduced and the use of green space close to the town (within walking distance or close to bus routes) is likely to increase. This trend can be encouraged by policy, information and the provision of suitable local GI. This

approach is being taken forward through seeking better connections to, and the promotion of the existing public rights of way system, householder information leaflets on new development sites, as well as the establishment of local GI/Landscape master plans.

Local GI

7.21 Each new major development site will be required to have a local GI plan, (or Landscape master plan) which starts by assessing how the site sits within its wider context:

- Existing GI locations to be protected (e.g. Biodiversity sites, Ancient Woodlands);
- Existing GI locations to be maintained or potentially enhanced (woodlands, river corridors, important tree belts, parks, green corridors, open spaces etc.) and
- Public Rights of Way and other important footpaths/ cycle routes linking the development area to these locations.

7.22 This would then allow analysis of

- The location of existing GI assets in the wider area;
- How they could potentially connect with and/or benefit the site; and
- Where the potential GI desire lines are to/from/through the site.

7.23 The local GI Strategy/ Landscape Master-plan specific to any major development site will be required to:

- Include any European/Ramsar site avoidance or mitigation measures, if necessary;
- Include similar measures for SSSI and LWS;
- Set out what new GI is being provided and how this accords with the Council's guidance; and
- Identify how new GI links with existing assets.

7.24 Ultimately, it would be expected that development would provide a net benefit to GI whilst causing no significant harm to existing GI elements.

Visitor Management

Overview

7.25 The District's high quality GI assets ranging from formal recreation grounds, parks and gardens to natural assets such as accessible wildlife sites, cliff tops, public rights of way and beaches – some of which are designated sites – provide an exceptional recreational environment attracting visitors from across the District and beyond and supporting the District's tourism economy. A number of these sites are under existing pressure from visitor numbers which is likely to be exacerbated with planned housing growth. The approach to managing visitor numbers at formal locations such as parks and gardens will be different to that required for natural

assets vulnerable to the impacts of recreational pressure. Appropriate management and promotion of GI assets can also further economic development in the District by attracting visitors and spend whilst balancing the needs of environmental sustainability.

Managing Amenity GI

7.26 Of the District's formal GI assets, the District parks of Kearsney Abbey and Russell Gardens come under significant pressure from high volumes of visitor numbers, particularly in summer months. Russell Gardens is particularly sensitive. Future housing growth may exacerbate these pressures. The approach to managing visitor numbers at these locations is anticipated to include:

- Restoration of existing facilities and infrastructure, including historic fabric;
- New and improved facilities;
- Identification and development of suitable alternative visitor locations, such as Connaught Park;
- Promotion of new public attractions and events where suitable; and
- Ensuring new development provides suitable local open space or contributes to existing spaces.

Managing Biodiversity GI

7.27 Visitor pressures have been identified in a number of the District's natural GI assets including a range of designated wildlife sites as well as European sites such as at the White Cliffs and Sandwich and Pegwell Bay.

7.28 A considerable year-round recreational pressure arises from dog walking. On the one hand this has the very positive benefits for health and wellbeing as it results in regular physical exercise and can lessen social isolation. However, the personal benefits of dog walking have to be weighed against the wider antisocial and potential health risks presented by unmanaged dog fouling. Additionally, and of profound importance on sensitive wildlife sites, dogs can not only significantly disturb wildlife, especially if running free, but through fouling adversely affect vegetation communities.

7.29 Dog walking has stimulated two recent studies:

- *draft* Pegwell Bay, Kent: Bird Disturbance Study 2010 -2011 (Kent Wildlife Trust, 2012) and
- Managing walkers with dogs at Sandwich Bay and Pegwell Bay National Nature Reserve, *preliminary assessment* (Natural England and The Kennel Club, 2012)

7.30 Measures to managing these pressures include:

- Ensuring provision of good quality GI assets including open space and pedestrian and cycle linkages local to residential communities to reduce pressures on natural GI sites;

- Adequate monitoring, clear signposting and wardening if necessary.
- Building on the dog walking studies to provide a positive solution in reducing or avoiding conflict.

Landscape

Overview

7.31 The role of landscape in GI is well summed up in the preamble to the European Landscape Convention, 2000:

... that... landscape contributes to the formation of local cultures and that it is a basic component of the European natural and cultural heritage, contributing to human well-being ...

7.32 Furthermore, the convention is concerned with all landscapes:

... that ... landscape is an important part of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas ...

Landscape Character Areas

7.33 Currently, the district is subject to two landscape character assessments, one for the Kent Downs AONB and one covering the rest of the district, the Dover District Landscape Character Assessment, 2006.

7.34 The Countryside Commission published a Landscape Assessment of the Kent Downs AONB in 1995 (CCP479). That area of the AONB within Dover district was characterised as:

- East Kent Downs: Alkham
- South Foreland

7.35 The nationally protected status of the landscape indicates that change should be insignificant. However, as part of an integrated regeneration scheme, an area amounting to some 18 ha on the edge of Dover town has been granted permission for mixed-use development including housing. It has yet to be determined what impact this may have on the East Kent Downs: Alkham character.

7.36 In 2006, the area of the district beyond the AONB was assessed and split into 12 character areas:

- Little Stour Marshes
- Preston and Ash Horticultural Belt
- Ash Level
- The Sandwich Corridor
- Richborough Castle

- Sandwich Bay
- Lydden Valley
- Staple Farmlands
- Eastry Arable and Woodland Clumps
- Eythorne Arable Mosaic with Parkland
- Lydden Hills
- Guston Hills

7.37 The industrial Sandwich Corridor is undergoing considerable redevelopment including ongoing change at Discovery Park. In contrast, changes in rural areas would be expected to be relatively slow; however, there is high degree of interest in using farmland for renewable energy projects such as photo-voltaic ‘farms’ and biomass digestion. The current landscape character assessments are too coarse in scale to assist in determining whether such proposals could result in the harm to the landscape component of GI outweighing the sustainability benefits.

The Heritage Coasts

7.38 According to Natural England:

Heritage Coasts represent stretches of our most beautiful, undeveloped coastline, which are managed to conserve their natural beauty and, where appropriate, to improve accessibility for visitors.

7.39 The only two Heritage Coasts in Kent can be found between Dover and Kingsdown, and between Dover and Folkestone. It is perhaps no coincidence that these two coasts are SSSI and SAC in the case of Dover to Kingsdown and this intensifies the management issues.

The NOSTRA Project and promotion of the Dover Strait as a World Heritage Site

7.40 NOSTRA – Network of Straits, is an EU Interreg IVC Project concerning itself with trans-national issues amongst Member States and how they are expressed across straits. For the Dover Strait, the partners are KCC and the Pas-de-Calais. For GI purposes, the strait is described thus:

- ‘The strait comprises remarkable landscapes – recognised by the Parc Naturel Régional des Caps et Marais d’Opale and the Kent Downs AONB , along with other designations. For the UK, the chalk cliffs have significant value in terms of national identity, with cultural associations going back for centuries. On the French part, the ‘Site des Deux Caps’, has recently won the prestigious designation “Grand Site de France”.

7.41 Amongst other objectives, KCC and the Pas-de-Calais expect NOSTRA to explore the following objectives:

To ensure the preservation of biodiversity and peoples quality of life through better planning and development of the strait's areas – notably through work on marine spatial planning in the NOSTRA seascapes workshop and study.

7.42 Thus, there is a relationship between NOSTRA and Dover GI. The NOSTRA Seascape work is of interest as seascape considers the fringing coastal areas and is concerned not simply with character as described visually, but by other sensory inputs, as well as cultural and historical associations. It would be expected that Dover GI would consider the outputs from NOSTRA in future planning, including a potential bid for World Heritage Site status for the Dover Strait. Since 2009 an agreement between KCC and Pas-de-Calais has envisaged a joint bid for UNESCO World Heritage Site status for the strait. This would include some of the fringing coastline.

Conserve and Create

Overview

7.43 As in the 2011 strategy, for the purposes of Dover District 'conserve and create' is defined as "*conserving distinctive features of GI whilst creating new features as appropriate*". Two broad areas are identified on the diagram, the AONB to the west of Dover Town and the northern area of the District around the Ash Level and stretching towards Deal.

West of Dover Town

7.44 The East Kent Downs AONB to the west of Dover Town (Alkham area) is identified in the 2004-2009 AONB Management Plan as being in moderate condition. The following strategic actions are identified:

- Conserve unimproved grasslands and pastures;
- Conserve and create open grazed grassland areas;
- Conserve and manage existing woodlands; and
- Conserve and reinstate hedgerows and support enhanced landscape management of Heritage Coast.

7.45 The area to the west of Dover Town identified also integrates with the Dover and Folkestone Cliffs & Downs Biodiversity Opportunity Area (BOA). BOAs are the Kent priority areas of opportunity for restoration and creation of priority habitats. Targets for the Dover and Folkestone Cliffs & Downs BOA include extending, reconnecting, restoring and enhancing areas of chalk grassland, to include restoration of at least 30ha and to create an additional 75ha by 2015.

7.46 Since the 1st edition of this strategy, the Council, with partners, has been successful in obtaining a Heritage Lottery Fund grant of £1.6M towards a £2.4M scheme of works in the Dover and Folkestone area. The scheme comprises four themes, which will deliver actions in three of the priority areas of 'Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services':

Up on the Downs HLF Scheme	Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services
Restore and Conserve	<i>1. A more integrated large-scale approach to conservation</i>
Community Participation	<i>2. Putting people at the heart of policy</i>
Access and Learning	<i>2. Putting people at the heart of policy</i> <i>4. Improving our knowledge</i>
Training and Skills	<i>2. Putting people at the heart of policy</i> <i>4. Improving our knowledge</i>

Table 7.2

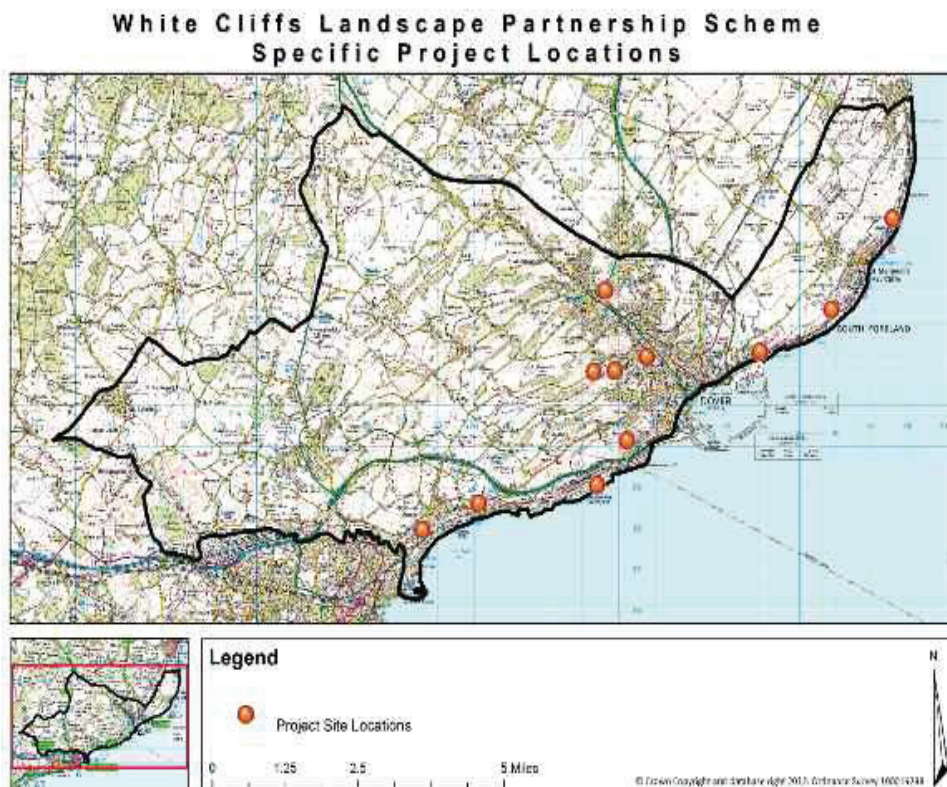


Figure 7.3 Area of Up on the Downs HLF Scheme and project locations

North Dover District Wetlands

7.47 The north of Dover District is characterised by the large areas of wetland associated with the River Stour. The now-defunct Southeast Plan identified the Lower Stour catchment between Deal, Sandwich and south Thanet as an area for the extension and creation of Wetland and other habitats and for improved access for visitors.

7.48 A variety of activities are being undertaken here, ranging from the creation of 20 ha wetland and wet grassland from arable farmland in association with the Sandwich Flood Alleviation Scheme (completion due in 2015) to the conversion of grass farmland to grazing marsh by the RSPB, with a planning application to create 81 ha of wet grassland and 14 ha of neutral grassland from farmland in 2013, and a further planning application for 54 ha of wet grassland, 13 ha fen, 9 ha neutral grassland and 13 ha scrub in 2014.

7.49 The area identified also broadly integrates with the Lower Stour Wetlands BOA. Targets for this area are to create at least 200ha of grazing marsh to be restored or recreated around Sandwich and in the Lower Stour Valley, adjoining the Sandwich Bay to Hacklinge Marshes SSSI and/or within the Ash Level and South Richborough Pasture Local Wildlife Site. Various projects, such as the Lower Stour Wetlands Living Landscapes, continue to progress with work here. In addition, with the ownership change at Discovery Park, some tracts of pasture land to the south of the Monks Wall have been gifted to Sandwich Town Council. It is understood that these would become part of an enlarged Monks Wall Nature Reserve.

Restore and Conserve

Overview

7.50 'Restore and Conserve' is a key action for landscape character areas established the first Kent Downs AONB Management Plan. The concept has been developed here as a key theme of the Dover GI Strategy. For the purposes of Dover District, the restore and conserve theme may be defined as "*actions that encourage the restoration of distinctive landscape features and the removal or mitigation of detracting features as well as conserving distinctive features*". The main spatial area covered by this theme is the coast between Dover and Deal.

Dover to Kingsdown

7.51 The East Kent Downs AONB South Foreland – Dover to Kingsdown area is described in the AONB Management Plan as being in moderate condition but of high sensitivity. The area overlaps with the Dover and Folkestone Cliffs & Downs BOA and associated targets set out under the conserve and create theme. The following strategic actions were identified in the 2004 -2009 AONB Plan:

- Conserve spacious and wild aspect of the landscape;
- Restore hedgerows only where appropriate;

- Encourage species-rich grassland and the reversion of arable land as key priority;
- Conserve and create pockets of scrubby vegetation to screen intrusions; and
- Maintain open views.

7.52 In 2012, The National Trust raised £1.2M for the purchase of the remaining 0.8 Km of cliff top between Langdon Cliffs and South Foreland Lighthouse to enable conservation and restoration aims in biodiversity and landscape to be taken forward to protect the national icon of the White Cliffs of Dover.

7.53 Kent Wildlife Trust's Historic Dover Downlands Living Landscape project continues apace; significantly with the reintroduction of grazing to the grassed earthworks of Dover Castle.

Kingsdown to Deal

7.54 The northern boundary of the AONB is characterised by Oldstairs Bay that signals change from the high 'White Cliffs' to lower, vegetated cliffs which, retreating before the increasing expanse of shingle beach, end just south of Walmer Castle. These cliffs may have been the shoreline in Roman times.

7.55 The main GI feature here is the beach which is subject to ongoing beach management to protect properties. A draft management plan for Kingsdown and Walmer Beach 2010 - 2014 was launched in 2011, but has yet to be pursued.

Connections and Corridors

Overview

7.56 This theme represents the enhancement of accessibility within the GI network for recreational purposes and the promotion of connectivity for the benefit of wildlife and biodiversity. Dover is working with other local authorities in East Kent to ensure cross-boundary connectivity and accessibility.

Connectivity for Biodiversity

7.57 Improving the connectivity of the network has benefits for species migration and enhanced biodiversity. There are a number of opportunities to expand the network's connectivity in the District as highlighted on the strategy diagram. To the west of the Ash Level, the existing wildlife site can connect to Stodmarsh Nature Reserve in Canterbury District and to the east enhance its connection with the Sandwich Bay area. Woodland around Wootton may also provide an enhanced link to Canterbury, west of the District.

7.58 Solid green lines on Figure 7.1 enclose areas of ecological value and other areas containing suboptimal habitats that can act as buffer areas that link to the wider East Kent GI Network and provide migration corridors, particularly with increased pressures from climate change.

Accessibility for People

7.59 Easily accessible and connected green space encourages use and provides social, environmental and economic benefits to local communities. The need for accessible local provision is underlined by the fact that the GI survey reports that almost 60% of Dover District users travel to green spaces on foot or by cycle. A range of measures to both enhance accessibility can be considered including walking and cycling. Improving accessibility to existing sites can be a method in addressing gaps in provision. In rural areas good access to the natural environment may replace the need for local amenity space or parks. A well planned local network can encourage local usage and the demands of access from existing and expanding populations will need to be carefully managed to ensure protection of existing European and locally designated sites sensitivities.

7.60 There is an opportunity to enhance east west connections through the District, particularly through the historic parks and gardens. Initial activities could include improved sign posting and enhanced and well maintained public rights of way. Investigation can also be undertaken to identify opportunities to improve accessibility to the historic parks and gardens, particularly if demand can be identified.

7.61 The 2000 Countryside Rights of Way Act (CRoW Act) increased the land available for public access, particularly the western edge of Dover Town and the Dover to Folkestone Cliffs. In some instances these require restoration and improved access to facilitate public use. The White Cliffs Countryside Partnership is engaged in a programme to restore these areas and improve access. This work is complemented by the 'Up on the Downs' HLF scheme and there is also potential for further work through a recent major planning permission which includes some 116 ha of farmland for enhanced recreational use.

7.62 Clearly, where the CRoW Act Open Access Land designation covers sites of wildlife interest an appropriate level of management for biodiversity will be required.

7.63 Under the Marine and Coastal Access Act 2009, an England Coast Path is being drawn up and Dover is one of the early districts in the country to be mapped. For simplicity, the path uses existing coastal routes where possible, but will include 'spreading room' that will allow people to rest, relax and enjoy a picnic en route, and so enjoy a more fulfilling recreational experience. The Dover section was submitted to the Secretary of State in 2013.

7.64 The District's long distance walking routes are a major asset and ensuring strong local connectivity to this network will benefit the community. Where these routes pass through designated sites an appropriate level of management will be required. New public rights of way need to be set out within the context of existing green infrastructure. Developer contributions towards improving PROW may be appropriate, particularly as a part of local GI strategies or in rural areas. The Kent County Council Countryside Access Improvement Plan provides a high level framework for developing the network.

7.65 Cycling is a popular past time, which has increased substantially following GB successes in cycling sports in 2012. The District's cycle offer can be enhanced through the completion of long distance cycle routes across the District in line with the Dover District Cycling Plan 2008 as well considering other, particularly off road, cycle routes to encourage a modal shift in transport usage.

7.66 In response to this, the newly completed River Dour Greenway is a shared space where families, cyclists and walkers can enjoy the River Dour in Dover town. The Greenway roughly follows the route of the River Dour to link Buckland Mill to Dover Sea front, and links in to other regional and national cycle routes in the area.

7.67 Accessibility alone will not encourage people to use the GI network. In order to be successful, routes need to attract users. This is particularly the case for recreational walking. Therefore, not only may developer contributions be used for proving PROW, development itself should ensure that the ambience of existing routes is maintained and not degraded by the side effects of urbanisation.

EKGI

Overview

7.68 The concept of East Kent GI has been developed with Canterbury, Shepway, and Thanet Councils. It uses the simplified approach to GI in considering the primary function of elements of GI:

- Biodiversity
- Civic Amenity
- Linear

Progress

7.69 It is agreed that the simplified approach will help deliver cross-boundary features (biodiversity corridors, long-distance paths and cycle routes) whilst allowing councils to treat civic amenity elements such as parks and sports grounds in a manner that suits the individual council. Shepway DC has taken forward this classification as has Dover DC and the approach is, as of 2013, being promoted by all the east Kent authorities.

7.70 East Kent GI was considered exemplary by the South East Green Infrastructure Partnership which provided resources to take the work forward in 2010. Since that time, changes have come about with the demise of the South East Regional Spatial Strategy and the KCC-led Natural Economy East Kent initiative. However, DDC was able to secure some seed funding from KCC to further the aims of EKGI in 2012.

7.71 In 2014 consultants are expected to report on the evidence required to assess and manage recreation pressures on the European and Ramsar sites across east Kent and in particular around the coast. Many of the protected sites and the issues which could have an effect on them cross local authority boundaries. The consultants'

preliminary findings already indicate a need for a consistent and cross-boundary approach between the east Kent planning authorities to consider a range of issues including visitor management, the provision of recreation sites and shared learning. Other benefits in working together may include joint approaches to development issues where there are cross-boundary effects and where a consistent approach could be beneficial.

7.72 It is expected that EKGI will also be contributing to the South East Local Enterprise Partnership, either via the Kent Nature Improvement Area (the replacement for the Kent Biodiversity Action Plan Partnership) or directly.

7.73 In addition, EKGI is capable of undertaking small-scale projects, In 2013/14, an ecosystems services project, co-funded by Natural England, is being undertaken in partnership with Kent and Medway Biological Records Centre, KCC, Canterbury CC, Shepway DC and Thanet DC to use ARCH - Assessing Regional Habitat Change (Interreg IVA-Two Seas Programme) tools: connectivity software and the Kent Habitat Survey 2012, to investigate the potential of de-fragmenting coastal populations of six priority species of Bumblebee. The project has engaged with Bumblebee Conservation, together with the Short-haired Bumblebee Re-introduction Project and is seen as a possible precursor to wider work on the Kent coast.



Arable reversion to combat Coastal Squeeze, Langdon Cliffs



8 Green Infrastructure Delivery

Introduction

8.1 The preceding chapters have classified the GI assets that currently exist in the district, together with the demands and pressures that housing growth and other regeneration projects will bring. The measures that the Council can reasonably employ to manage and enhance GI have also been considered under the themes set out in Core Strategy. This chapter lays out the next steps in delivery.

The Land Allocations Local Plan and GI Provision

8.2 The production of this document has been timed to support the Land Allocations Local Plan (LALP) and to take forward GI aspects of that plan, once it is adopted. As considered in chapter 1, the LALP is proposing some 52 housing developments, delivering 2797 houses in addition to the strategic allocations of the Core Strategy. There are other, exceptional, developments coming forward, such as at Discovery Park and at Western Heights and Farthingloe, which could deliver more than 1000 further houses.

8.3 All housing developments should consider GI. However, for the purposes of auditing GI provision across the district, it is sensible to apply a trigger quantum of development in order to optimise the use of limited monitoring resources.

8.4 One of the concerns that emerged from the Core Strategy and the Whitfield Urban Expansion Supplementary Planning Document was impact on the Thanet Coast and Sandwich Bay SPA and Ramsar sites from numerous potential housing sites. To mitigate for this, a strategy was devised whereby any housing development above a certain size (15 units) would have to provide a contribution towards monitoring and, potential management requirements at these protected sites. This mitigation strategy has been agreed with Natural England and is being taken forward through the LALP.

8.5 The 15 unit number was selected as it also represents when a housing site needs to be screened for Environmental Impact Assessment, based on a Core Strategy housing density of 30 units/hectare. It is considered that a housing development of 15 units and above is also a suitable threshold for quantifying GI provision.

8.6 Therefore, it is planned that, within three months of adoption of the LALP, a website is set up to record the provision of GI proposed for LALP and exceptional housing sites above 15 units that obtain planning permission. The website will enable detailing of GI, in accordance with the scheme in this document (i.e. civic amenity, biodiversity, and linear) tabulated in sufficient detail that outcomes can be recorded, including under BARS2 when that is available. By recording according to primary GI function, the problem of potential double-counting will be overcome. The following will be recorded for each such development:

1. Area of habitat lost for development, based on the ARCH Wildlife Habitat Survey 2012, or its successors;
2. Funding allocated for the Thanet Coast and Sandwich Bay Mitigation Strategy
3. Area of land provided for play space;
4. Area of open space land provided, separated into amenity open space and:
5. Open space land developed as semi-natural habitat, including in its design for the purposes of recording:
 - Area of land provided for any European or Ramsar site impact mitigation;
 - Area of land provided for SSSI impact mitigation;
 - Area of land provided for LWS impact mitigation;
 - Any other area of land providing ecological enhancement, e.g. swales
6. Enhancements provided for LWS as mitigation;
7. Total distance of PRow, including type, on site;
8. Total distance of new paths (foot, cycle etc.) on site;
9. Total number of linkages with external paths;
10. Provision of information on wildlife to incoming residents.

Stakeholder and Partner GI

8.7 In the 2011 Strategy, GI projects planned and being undertaken by stakeholders and partners were included. The intention is that this may be continued through the website. However, there will be a distinction between 'SMART' (specific, measurable, attainable, relevant, time-bound) projects and aspirational goals. To that end, it is proposed that, within 6 months of adoption of the LALP, a Dover GI Stakeholder workshop is held to discuss current and future GI issues, projects and goals, including this strategy and EKGI.

East Kent Green Infrastructure (EKGI)

8.8 EKGI is a successful partnership which is tackling issues that cross traditional boundaries. There is potential to develop and broaden the EKGI model, which could provide incentives for strengthening the partnership and, potentially, access significant funding streams which could be transformative in delivering GI needs in east Kent.

8.9 A major interest of EKGI centres upon the protection of European sites and this is intrinsically linked to the Local Authorities' Local Plans and considerations of the Community Infrastructure Levy (CIL) in delivering mitigation measures.

8.10 In 2012, The Council obtained some funding from KCC for GI work in east Kent up to 2014. This, with contributions from partners, has allowed certain EKGI projects to be undertaken. Subject to the agreement of KCC, it is intended that DDC will continue to promote joint GI ventures in sustainable development across east Kent beyond 2014.

Applying ARCH Outcomes to Planning

8.11 One of the ARCH projects that Dover planners have been involved with is the Planning Application Screening Tool - PAST. This is a GIS-based tool which is the result of many years collaborative work between local planning authorities and the Kent and Medway Biological Records Centre (KMBRC). PAST is a powerful tool for assessing biodiversity interest on and around potential development sites; and as such, it can provide an important contribution to GI. The activation of PAST is not entirely within the hands of the planning department due to the complexities involved with GIS systems. However, once planners are trained to use it, it can be combined with the 2012 ARCH Kent Habitat Survey (KHS) to provide planners with sufficient tools to ensure that biodiversity is fully considered in all planning applications.

Provision of Biological Records to KMBRC

8.12 It is often the case that major developments, particularly those that are subject to EIA, generate new biological records. Although the reports which contain the records are normally the copyright of consultants, there appears to be no reason why the actual records should not be submitted to the KMBRC to increase our baseline knowledge of biodiversity. However, this is unlikely to be a straight-forward process as it will depend on numerous factors, including devising a uniform recording system, and must be considered aspirational at this time.

Other Projects

8.13 It is expected that a 'Parks and People' Heritage Lottery Fund bid will be made in February 2014 for a major project on the Kearsney Parks complex.

8.14 Following The Kearsney Parks complex bid, the potential for a Heritage Park at Sandwich will be explored further and pursued in partnership with Sandwich Town Council.

8.15 The EKGI Bumblebee habitat connectivity project should be reporting in March 2014.

Summary of Forthcoming Actions

Action	Time, after adoption of LALP	Output
Website construction and population	3 months	The ability to quantify all LALP development-based GI for monitoring and audit.
Dover GI and EKGI Workshop	6 months	Partner and stakeholder projects
Application of PAST	At adoption	Increased protection of biodiversity, increased efficiency in processing planning applications

Application of 2012 KHS	Within 12 months	Increased protection of biodiversity, increased efficiency in processing planning applications
Provision of records to KMBRC	A scheme to be developed from adoption onwards	Increased biological knowledge

Table 8.1



Walmer Beach