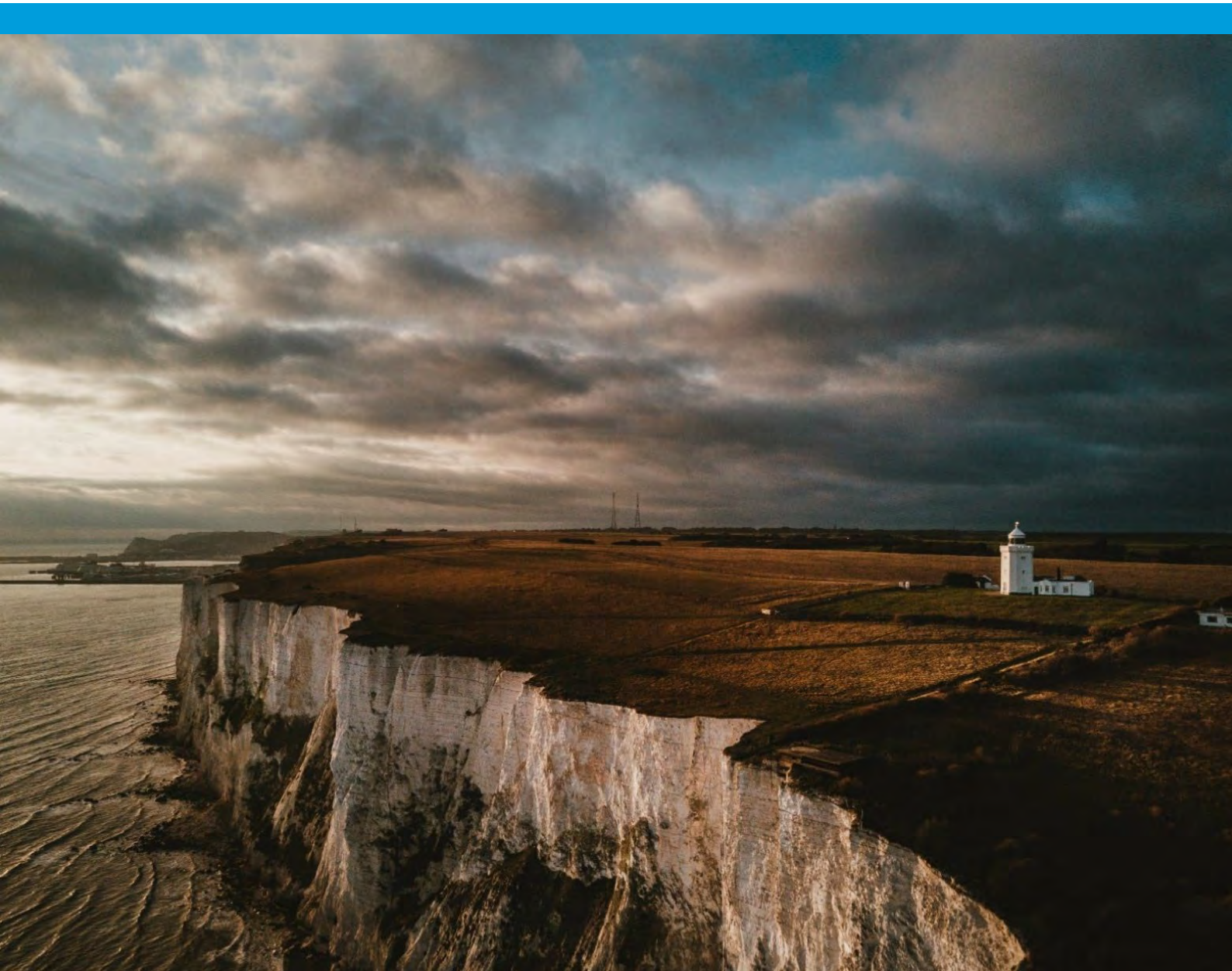


# Dover Green and Blue Infrastructure Strategy

Evidence Report

FINAL May 2022



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Cover photograph White Cliffs of Dover with South Foreland Lighthouse - Stefan Daniel Petcu

# Introduction

## About Dover's Green and Blue Infrastructure Strategy

Dover District Council's Green and Blue Infrastructure Strategy sets out a strategic network of green and blue infrastructure across Dover district. It provides an assessment of needs and opportunities, strategic priorities and future actions to take forward green and blue infrastructure in the district. This document provides the evidence base for green and blue infrastructure planning in the district. A summary report and action plan will be produced in 2022.

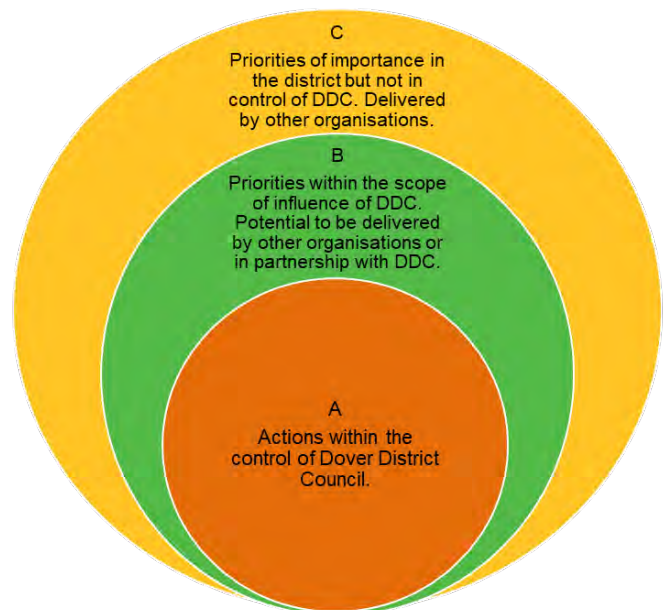
Positive planning for green and blue infrastructure is a requirement of the National Planning Policy Framework (NPPF). Dover district's Green and Blue Infrastructure Strategy supports the current Core Strategy 2010 and the forthcoming Local Plan.

Although this evidence base is presented in 'topic' themes, an important aspect of green and blue infrastructure planning is to take a multidisciplinary approach and to seek opportunities which address issues and provide opportunities across many areas. Areas of the district are also assessed, and the needs, opportunities and priorities outlined. For this, Dover district is divided into five areas (see right).

Themes
Biodiversity
Blue infrastructure and the coast
Recreation, access and active travel
Health and wellbeing
Landscape character and heritage
Spatial areas
Dover town
Deal and Walmer
Sandwich
Aylesham
Rural areas of the district.

This strategy takes a cross-boundary approach to green infrastructure. Dover District Council works closely with its neighbouring authorities in planning green infrastructure. Green and blue infrastructure networks, including biodiversity, strategic access routes and watercourses, operate across neighbouring authority boundaries. All the mapping in the strategy considers an overlap of at least 5km so that the wider context of the district in east Kent can be assessed.

Although this is a document produced by Dover District Council, improving green and blue infrastructure will require actions being taken forward by many different organisations, groups, communities and individuals. The strategic priorities, needs and opportunities set out a broad ambition to improve green and blue infrastructure in Dover district. Some of these can be delivered by Dover District Council. However, many will need to be delivered in partnership or by other organisations, and many will require additional funding, see right.





## What is Green and Blue Infrastructure?

Many environmental features make up green and blue infrastructure (see below). An important feature of green and blue infrastructure is that networks are strategically planned, and that spaces and places are connected. Some green and blue infrastructure is publicly accessible, but it does not need to be accessible to be valuable.

### What is Green and Blue Infrastructure?

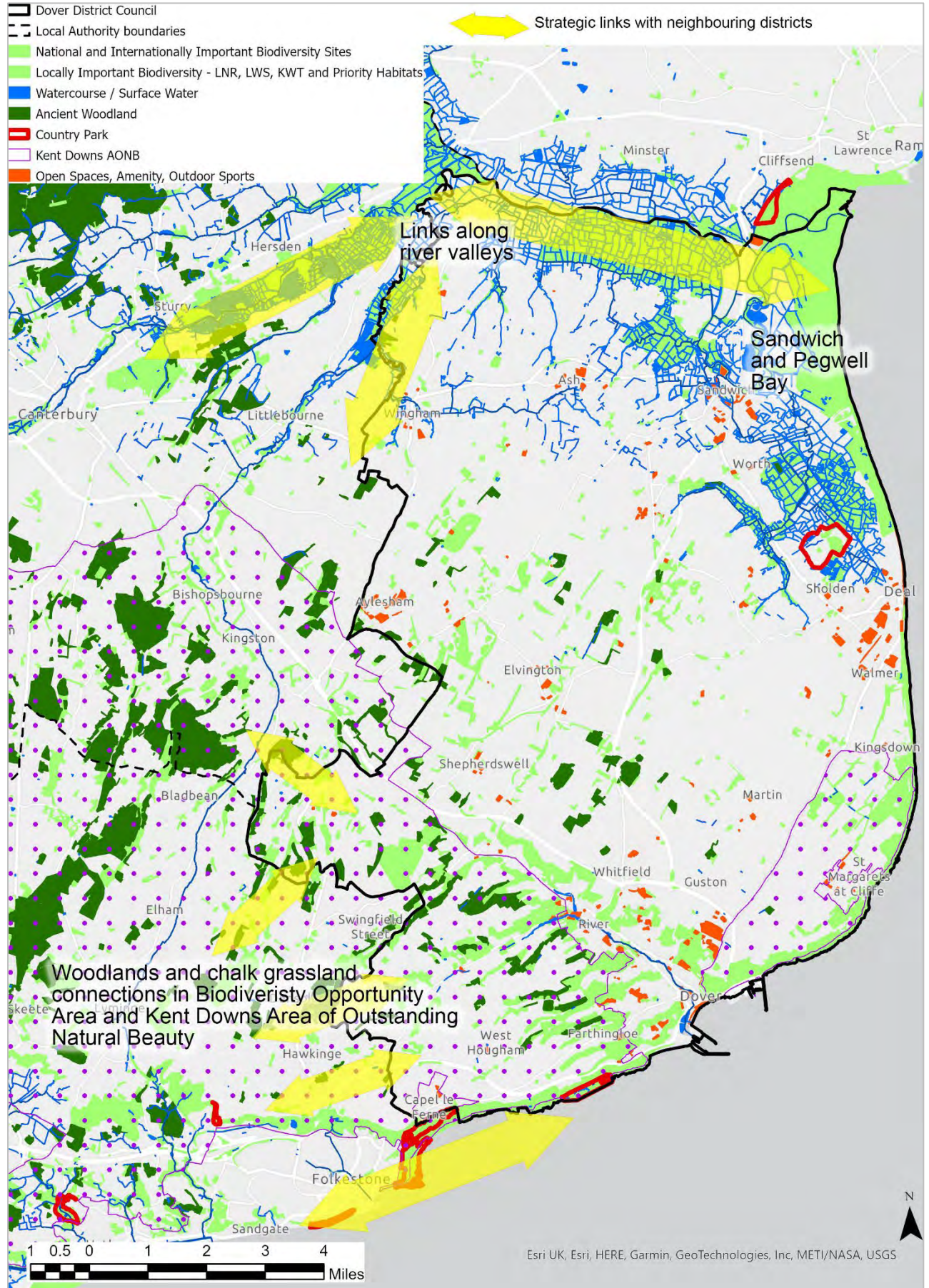
- Natural and semi-natural rural and urban green spaces – including woodland, scrub, grassland, heath, wetland and open and running water (blue infrastructure), brownfield sites, coasts;
- Parks and gardens – urban parks, country parks, formal and private gardens, institutional grounds (e.g. schools and hospitals);
- Amenity green space –recreation spaces, play areas, outdoor sports facilities, community and roof gardens, village greens, commons, hedges, civic spaces, highway trees and verges;
- Allotments, city farms, orchards and farmland;
- Cemeteries and churchyards;
- Green corridors – rivers, canals, road verges, rail embankments, cycling routes, rights of way;
- Nature conservation sites – Designated sites and statutory and non-statutory Nature Reserves;
- Green space designations (selected for historic significance, beauty, recreation, wildlife, or tranquillity);
- Archaeological and historic sites;
- Functional green space such as sustainable drainage schemes (SuDS) and flood storage areas;
- Built structures – living roofs and walls, bird and bat boxes, roost sites.

Abridged from: Town & Country Planning Association and The Wildlife Trusts (2012), *Planning for a Healthy Environment – Good Practice Guidance for Green Infrastructure and Biodiversity*.

Each component part of green and blue infrastructure has the potential to deliver wider benefits (functions), including recreation, biodiversity, health, climate change mitigation and adaptation and water quality (termed 'multi-functionality'). When planned, designed and managed as a network, these benefits are maximised.

# Dover District's Green and Blue Infrastructure Network

## Plan 1: Dover's Green and Blue Infrastructure Network





# The Economic Benefits of Green and Blue Infrastructure

The economic benefits of green and blue infrastructure are becoming increasingly well evidenced.<sup>1</sup> Effective green and blue infrastructure planning and delivery is essential to underpin sustainable economic growth; it can no longer be viewed as a 'nice to have' option. There is strong evidence that green and blue infrastructure creates communities where people want to live and that it helps to attract and retain businesses. It can help tackle obstacles to economic growth in ways which enhance both the environment and quality of life, and it can support better health and well-being.

## **How Green and Blue Infrastructure Supports Economic Growth**

**Health Improvement:** The quality of the environment is important in encouraging daily exercise, which improves health and reduces cost burdens. There is strong evidence that access to greenspace has a positive impact on mental health. Such health improvements support increased productivity and release expenditure on health to invest elsewhere.

**Environmental Cost Savings:** Green and blue infrastructure contributes to the resilience of economic growth through reducing risks, such as flooding and temperature extremes. There is good evidence that green and blue infrastructure can reduce damage costs (allowing greater investment in productive activities), often providing a more cost-effective way to meet environmental targets than mechanical solutions. There is also evidence that green and blue infrastructure solutions, for example Sustainable Drainage Systems (SuDS) and green roofs, bring economic as well as environmental benefits. Green infrastructure can have a positive role in improving traffic congestion, which costs business, reduces quality of life and causes air quality issues. It can also resolve water quantity issues (too little to meet growing demand or too much in the form of flooding).

**Inward Investment and Regeneration:** Green and blue infrastructure increases an area's attractiveness, attracting inward investment, employees and customers. Investment in green and blue infrastructure can lead to higher levels of employment and tourism and to lower crime and it can support the wider regeneration of an area. There is evidence that integrating green and blue infrastructure with urban regeneration will provide more benefits, faster.

**Visitor Economy:** The attractiveness of an area and the quality of green and blue infrastructure has an impact on the number of visitors and visitor spend.

**Climate Change:** Climate change is a major long-term threat to the economy. The Stern Review estimated that the impacts of climate change were equivalent to losing at least 5% of global GDP each year, indefinitely. Some of the areas vulnerable to the effects of climate change include real estate, infrastructure, timber, agriculture and tourism.

Green infrastructure can support climate change mitigation and adaptation, for example:

- Through increasing the land's ability to sequester carbon;
- Trees and plants can improve energy efficiency by reducing the need for heating and cooling of buildings;
- Climate change will increase the threat of flooding. Natural environmental interventions can help to reduce this risk, and at less cost than some 'engineered' solutions;
- Urban centres may in future suffer from dangerous heat and air pollution. Some of the impact may be reduced by investment in the natural environment (particularly trees).

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<sup>1</sup> For example in Eftec and Sheffield Hallam University for Defra and Natural England (2013), *Green Infrastructure's contribution to economic growth: A review*.

## Urban Green and Blue Infrastructure

Well-planned and implemented urban green and blue infrastructure can develop networks in urban areas that deliver a wide range of benefits to both people and nature. Urban green and blue infrastructure can ‘work hard’ and address a range of urban challenges, if properly planned and well-managed.

### Adapting to Climate Change

*Greening the grey, protection from surface water flooding, coordination of urban greenspaces with other infrastructure, such as sustainable urban drainage systems and rain gardens.*

The intensity, frequency and length of summer heatwaves is expected to increase in the future. Urban areas are hit particularly hard due to their high concentration of impervious surfaces.

There is evidence that increasing the quantity of urban green and blue infrastructure elements can play a role in countering the urban heat island effect.<sup>2</sup> However, as individual parks have limited cooling capacity on their own, they should ideally form part of a network, including green corridors that allow cool, unpolluted air to penetrate the urban area from the surrounding countryside.

Intense rainfall events are likely to increase in frequency and magnitude because of climate change and lead to a need for improved stormwater management. Green instead of grey infrastructure can play a role, e.g. utilising bioswales or rain gardens in lieu of conventional stormwater disposal systems.

Urban areas in low-elevation coastal zones face the threat of rising sea-levels, with associated risks of submergence and coastal erosion and flooding. Among possible solutions are the maintenance and restoration of coastal landforms and ecosystems, including increasing vegetation to stabilise sand dunes.

### Protecting Biodiversity and Connectivity

*Protecting biodiversity and connectivity - creating and restoring connections to support and protect processes, functions and benefits that individual greenspaces cannot provide alone.*

Although urbanisation often has a negative impact on biodiversity, urban areas can also support several species and habitat types. This offers opportunities both for biodiversity protection and for people to experience nature. Efforts to promote biodiversity need to be designed based on local conditions.

Creating networks of urban biodiversity and ensuring new developments incorporate elements that encourage wildlife is beneficial to both humans and other species.

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<sup>2</sup> Urban GI Planning - Practitioners' Guide as part of the EU FP7 project – Green Surge 2017 page 9.



## Developing a Greener Economy

*Attractive and green public realm, encouraging sustainable travel and the integration of transport systems.*

Attractive urban greenspaces can not only improve a city's competitiveness as a destination for new residents, businesses and tourists, it also helps to generate income, e.g. through leisure activities and special events. Urban green and blue infrastructure can also support local food production and sale at farmers markets in attractive urban areas.

Good walking and cycling networks encourage active lifestyles, lower carbon emissions and improve air quality. Well-designed public realm with networked open space and strategic electric charging points, public transport and bike hiring points help to motivate people to change transport behaviours.

## Increasing Social Cohesion, Health and Wellbeing

*Increasing social cohesion, health and wellbeing – improving air quality, encouraging active lifestyles, making space available for people to meet and congregate with their community and taking ownership of their neighbourhood.*

Access to greenspace in urban areas has been shown to positively affect health in a range of ways, including longer lives, quicker recovery from surgery, reduced stress, mental health benefits and improved self-reported perceptions of health. All of these translate into greater wellbeing and reduced health care costs.<sup>3</sup>

Where people feel attached to their local urban greenspaces, they may be inspired to become more actively involved in related planning processes. Greenspaces are also generally free and open to all, encouraging a mix of people with varied backgrounds to interact. Greenspaces can provide opportunities for direct engagement with the environment, whether through farming, gardening, volunteering, or informal creative ventures. These experiences can contribute to individual wellbeing, learning and the development of social and professional skills.

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<sup>3</sup> Urban GI Planning - Practitioners' Guide as part of the EU FP7 project – Green Surge 2017 page 15.

# Climate Change

## The Challenges and Impacts of Climate Change

Climate change is one of the biggest challenges being faced by society. The impacts of climate change are already evident, and these will become more severe and widespread as global temperatures rise. How great the impacts will become depends upon how successfully society reduces greenhouse gas emissions.

Due to Kent's geographical location, long coastline and population density means that it is likely to suffer from some of the severest impacts of climate change in the United Kingdom.<sup>4</sup> The Climate Change Risk and Impact Assessment for Kent and Medway (CCRIA) provides detailed projections of climate change to 2100. Under a high emissions scenario, this suggest that in Kent there will be:

- Hotter summers with an increase in average summer temperature of 2-3°C by 2040 and 5-6°C by 2080;
- Warmer winters with an increase in average winter temperature of 1-2°C by 2040 and 3-4°C by 2080;
- Drier summers with a reduction in average precipitation of 20-30% by 2040 and 30-50% by 2080;
- Wetter winters with an increase in average precipitation of 10-20% by 2040 and 20-30% by 2080;
- Increases in sea-level rise by up to 0.3m by 2040 and 0.8m by 2080.

The Kent and Medway CCRIA also provides a detailed assessment of the county's current and future risks, opportunities, and impacts of climate change. It prioritises these to identify the risks of most importance. The climate risks with the greatest potential impact on Kent are increase in average temperature, heatwaves, drought, sea-level rise, heavy rainfall, flooding and soil destabilisation and landslides.

## The Role of Green and Blue Infrastructure

Green and blue infrastructure can help to tackle climate change both through adaptation and mitigation (see right). It is an essential tool and often provides solutions which are more cost effective than engineered approaches. Green and blue infrastructure also provides additional benefits, such as spaces for recreation. Fundamentally, healthy and well-functioning natural systems will be essential as the climate changes.

**Adaptation is the process of adjusting to the current and future effects of climate change.**

It means anticipating the adverse effects of climate change and taking appropriate action to prevent or minimise the damage they can cause or taking advantage of opportunities that may arise. Examples of adaptation measures include large-scale infrastructure changes, such as building defences to protect against sea-level rise.

**Mitigation is a human intervention that reduces the sources of greenhouse gas emissions and / or enhances the sinks.**

Mitigation means making the impacts of climate change less severe by preventing or reducing the emission of greenhouse gases into the atmosphere. Mitigation is achieved either by reducing the sources of these gases or by enhancing the storage of these gases e.g. through tree planting.

<sup>4</sup> <https://www.kent.gov.uk/about-the-council/strategies-and-policies/environment-waste-and-planning-policies/environmental-policies/climate-change/kents-changing-climate>

Figure 1: Ways that Green and Blue Infrastructure can help to tackle Climate Change



Managing surface water – green and blue infrastructure can help to manage surface water and sewer flooding by reducing the rate and volume of water runoff; intercepting water, allowing it to infiltrate into the ground and providing permanent or temporary storage areas.



Managing high temperatures – particularly in urban areas, where evaporative cooling and shading provided by green infrastructure can ensure that towns and cities are attractive and comfortable places to live, work, visit and invest.



Carbon storage and sequestration – storing carbon in soils and vegetation.



Material substitution – replacing materials such as concrete and steel (which involve high fossil fuel consumption in their production) with sustainably managed wood and other natural materials.



Providing low carbon fuels – replacing fossil fuels with lower carbon alternatives, including bio-energy, wind and hydro.



Reducing the need to travel by car – providing local recreation areas and green travel routes to encourage walking and cycling.



Helping species adapt – providing a more vegetated and permeable landscape through which species can move northwards to new 'climate spaces'.



Reducing soil erosion – using vegetation to stabilise soils that many be vulnerable to increasing erosion



Managing water resources – green and blue infrastructure can provide places to store water, allows water to infiltrate into the ground sustaining aquifers and river flows, and can catch sediment and remove pollutants from the water, thereby ensuring that water quantity and quality is maintained.



Food production – providing environmentally sustainable food production that delivers food security.



Managing flooding – green infrastructure and blue infrastructure can provide water storage and retention areas, reducing and slowing down peak flows and helping to alleviate river and coastal flooding.

# Climate Change and Dover District

## Potential Climate Change Impacts in Dover District

High temperatures will be more significant in Kent and Medway than elsewhere in the UK due to a warmer local base climate. This will have impacts on the economy as well as society. Many of the impacts of climate change are interrelated. All of these impacts will affect Dover district:

- Higher average temperatures, heatwaves and extreme temperatures are likely to cause health impacts, causing overheating in homes and buildings of all types, affecting health and productivity and requiring increased energy for cooling;
- Poor air quality and traffic congestion is already an issue - an increased population and periods of hot weather could worsen air quality leading to respiratory and other health issues;
- Changes in rainfall and temperature will change the face of farming – favouring some crops but disadvantaging others. Crops may need more protection, e.g. through polytunnels, affecting the landscape character;
- Heat related issues may affect transport networks;
- Flooding risk is projected to worsen with increased winter rainfall and more frequent and more severe rainfall events;
- The risk and impact of sea level rise is likely to be greater than previously thought. Impacts include loss of intertidal areas through coastal squeeze or damage to agricultural land and coastal habitats. Erosion of coastal habitats and natural geomorphological process could increase;
- Measures to protect infrastructure could be needed, for example frequent berth height increases at the Port of Dover. The port could also be more affected by severe weather events, which in turn could lead to more transport disruption, e.g. through ‘Operation Stack’;
- The railway line between Folkestone and Dover could be affected by storm surges leading to damage, disruption and delay;
- Dover is an area of water stress. Climate change and increased population may increase water demand while decreasing water available for supply. This could have significant impacts on public water supply and high water consumption sectors such as agriculture;
- Increased temperatures and water scarcity, exacerbated by already disconnected habitats and species under decline, could have serious impacts for biodiversity;
- Several rivers are classed as poor under the Water Framework Directive, and with higher temperatures, possible droughts and low flows, pollution and runoff concentrations are likely to increase which will limit the potential to improve the status of these water bodies without substantial action;
- Increased temperatures are likely to lead to shifts in habitats and biodiversity that can result in the spread of pests and diseases, including those previously not seen in the UK. Dover’s location at the South East corner of the UK, its busy port, regular passenger and freight crossings to mainland Europe and worldwide mean that it has the potential to be affected first by invasive non-native species.



## Actions by Dover District Council

Dover District Council declared a Climate Emergency at its Full Council meeting of 29 January 2020, following the Cabinet decision on 4 November 2019 that there is a need for urgent action, given the serious impact of climate change globally. The council set up a cross party Climate Change Member Working Group and produced a Climate Change Strategy and Action Plan in January 2021. Dover District Council has confirmed support for the Kent and Medway Energy and Low Emissions Strategy, Kent Environment Strategy and Kent Fuel Poverty Strategy, and signed the Emissions Reduction Pledge 2020.

The council has the aspiration of becoming a net zero carbon emitter by 2030. In addition, the council has pledged to help support the wider community so that the district can become carbon neutral by 2050. It also supports the Kent Environment Strategy and Kent Fuel Poverty Strategy and is a signatory to the Emissions Reduction Pledge 2020. Officers have also been working with Kent partners on a draft Energy and Low Emissions Strategy.

Dover's Per Capita annual Carbon Dioxide emissions fell from 7.4 tonnes in 2008 to 3.9 tonnes in 2018. However, while total emissions reduced by almost half, and industry and commercial CO<sub>2</sub> emissions more than halved, emissions from the domestic and transport sectors have been more resistant to progress.

Actions in Dover District Council's Action Plan of relevance to the Green and Blue Infrastructure Strategy include:

- Develop/ update plans to encourage nature-based solutions and sustain /enhance biodiversity;
- Tree/ hedge planting projects within our control to improve carbon sequestration/ air quality;
- Maintain existing tree stock, biodiversity, soil and carbon capture rich landscapes;
- Consider Climate Change Risk Impact Assessment (CCRIA) in adaptation plans for Council environmental projects;
- Rainwater harvesting from Council buildings;
- Council land for woodland/ green corridors;
- Develop re-wilding on Council land;
- Prevent importation of pest, diseases and non-native species through the Port of Dover, and ensure eradication of non-native species on council owned or council managed land;
- Increase volunteer/ outreach work to promote the value of the natural environment;
- Liaise with community groups/ schools to increase awareness of what we can all do to help benefit the environment;
- Work with Kent Highways to implement measures to improve air quality (i.e. Anti-idling, Planting of hedges/ trees to absorb emissions and improve air quality);
- Sustainable pattern of development supported by a low carbon transport infrastructure;
- Sustainable travel planning;
- Focus Visit Dover campaigns on 'green' tourism in the district;
- Encourage landowners upstream to develop flood prevention measures through natural sources, rather than installation of barriers downstream;
- Encourage better land management to protect what we've got;
- Highlight the impact food choices/ production, travel etc has on marine life, soil and the air we breathe;
- Smart connectivity and mobility modal shift plan, linking to sustainable transport, transport innovations, active travel, virtual working and digital behaviour change;
- Work with KCC to improve the facilities for cycling and walking within Dover District and update Dover District Cycling Plan.

## Climate Change in Dover's New Local Plan

Climate change is now a legal requirement of the development plan-making process. Climate change is a thread throughout Dover district's new Local Plan with a chapter devoted to climate change. In 2019, Dover District Council also held a 'Climate Change in Local Plans' workshop for Local Planning Authorities across Kent.

Strategic Policy 1 specifically covers climate change (see right). Other policies relating to climate change are:

- **Policy CC1 Reducing Carbon Emissions** - covers the design of new development to reduce carbon emissions;
- **Policy CC2 Sustainable Design and Construction** – provision of measures to adapt to climate change including water efficiency, green infrastructure, sustainable drainage systems, shading of pedestrian routes and open spaces, opportunities for locally grown food produce, rainwater harvesting and drought resistant landscaping;
- **Policy CC3 Renewable and Low Carbon Energy Development** - delivery of energy development, ensuring there is no significant impact on the landscape setting, habitats, biodiversity or wildlife;
- **Policy 4 T11 Sustainable Transport and Travel** - walking and cycling and alternatives to travel by private vehicles;
- **Policy CC4 Water Efficiency** in new development;
- **Policy CC5 Flood Risk** - development sites must be accompanied by a site specific Flood Risk Assessment;
- **Policy CC6 Surface Water Management** covers the use of Sustainable Urban Drainage Systems;
- **Policy CC7 Coastal Change Management Areas**
- **Policy CC8 Tree Planting and Protection** - two new trees to be planted for each new dwelling and one new tree per creation job expected through new commercial development.

### Strategic Policy 1 Planning for Climate Change

All new development must contribute to the mitigation of, and adaptation to, climate change by:

#### Mitigation

- Including low carbon design approaches to reduce energy consumption in buildings;
- Utilising sustainable construction techniques and optimising resource efficiency;
- Incorporating renewable and low carbon technologies;
- Providing opportunities for decentralised energy and heating;
- Maximising green infrastructure; and
- Reducing the need to travel and maximising opportunities for 'smarter' sustainable transport options to deliver the highest possible share of trips by the most sustainable travel modes.

#### Adaptation

- Ensuring that development is designed to reduce vulnerability to, and provide resilience from,
- the impacts arising from a changing climate, whilst not increasing the potential for increased
- greenhouse gas emissions in doing so;
- Incorporating multi-functional green infrastructure to enhance biodiversity, manage flood risk,
- address overheating and promote local food production;
- Improving water efficiency; and
- Ensuring that development does not increase flood risk, including by taking a sequential approach to avoid development in flood risk areas and where possible reduces the risk of flooding.

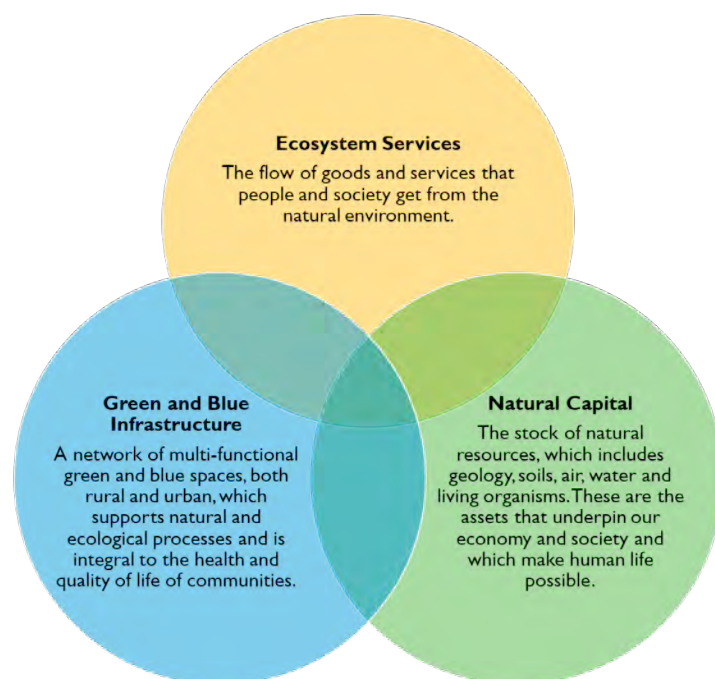
# Overarching Principles

## Natural Capital and Ecosystem Services

The natural services obtained from nature, such as clean air, clean water, healthy soils, pollination, food and recreation are vital to human survival. Policies and land use decisions have an impact on the natural provision of these services. This is increasingly being taken into account in decision-making.

Concepts central to properly capturing, evaluating and reflecting the importance of the natural world in policy and decision-making are 'natural capital' and 'ecosystem services'.

The figure to the right shows the relationship between natural capital, ecosystem service and green infrastructure.



*Figure 2: Relationship between Natural Capital, Ecosystem Services and Green Infrastructure*

## Natural Capital

Natural capital includes the air, water, soil and ecosystems that support all forms of life.

The UK government has repeatedly emphasised the importance of 'Natural Capital'. This green and blue infrastructure strategy contributes to supporting the natural capital goals of the Government's 25 Year Environment Plan: clean air, clean and plentiful water, thriving plants and wildlife, reducing environmental risk, using resources more sustainably, managing environmental pressures, mitigating and adapting to climate change, minimising waste, enhancing biosecurity and enhancing beauty, heritage and engagement with the natural environment.

The value of the environment and natural capital is routinely understated. For example, the Office for National Statistics estimate that England's woods and forests deliver a value of services estimated at £2.3 billion annually. Only a small proportion – 10% – is from timber values. The rest of the value is from other more 'hidden' benefits to society, such as recreation and air pollution removal, which improve health, and carbon sequestration which helps to combat climate change.<sup>5</sup> The Government's 25 Year Environment Plan sets out how 'natural capital accounting' will be used as a gold standard decision-making tool in the UK in the future.

<sup>5</sup> <https://www.gov.uk/government/news/natural-capital-tool-launched-to-help-protect-the-environment>

## Ecosystem Services

Ecosystem services are the benefits provided by the natural environment that contribute to making human life possible. They include those things which are essential to life, including providing food, timber and water, soil formation, regulation of water, air quality and pollination. They also include a range of services which contribute to the quality of life, including recreation and the inspiration of the natural world. Without a healthy environment, those things which we rely on for life no longer supply us with what we need.

The multiple societal and ecological benefits which green and blue infrastructure planning and delivery provide make this an important route to delivering improvements to ecosystem services. A well-planned, connected and functioning green and blue infrastructure network can help to support ecosystem services.

Services are grouped into four categories:

- Supporting services, such as nutrient cycling, oxygen production and soil formation. These underpin the provision of the other 'service' categories;
- Provisioning services, such as food, fibre, fuel and water;
- Regulating services, such as climate regulation, water purification and flood protection;
- Cultural services, such as education, recreation, and aesthetic value.

### Important Messages from the UK National Ecosystem Assessment (2011)

- The natural world, its biodiversity and ecosystems are critically important to our well-being and economic prosperity, but are consistently undervalued in conventional economic analyses and decision-making;
- Ecosystems and ecosystem services and the ways people benefit from them have changed markedly in the past 60 years, driven by changes in society;
- The UK's ecosystems are delivering some services well, but others are in long-term decline;
- The UK population will continue to grow, and its demands and expectations continue to evolve. This will increase pressures on ecosystem services in a future where climate change will have an accelerating impact both in the UK and the rest of the world;
- Actions and decisions made now will have consequences far into the future for ecosystems, ecosystem services and human well-being. It is important that these consequences are understood, so that we can make the best possible choices, not just for society now, but also for future generations;
- A move to sustainable development will require an appropriate mix of regulations, technology, financial investment and education, as well as changes in individual and societal behaviour and adoption of a more integrated, rather than the conventional sectoral, approach to ecosystem management.

Ecosystems services are analysed in Natural England's National Character Assessments.<sup>6</sup>

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<sup>6</sup> 119 North Downs and 113 North Kent Plain.



## Biodiversity Net Gain

Biodiversity Net Gain is a mechanism through which development leaves biodiversity in a better state than before. The Government announced it would mandate net gains for biodiversity in 2019. Mandatory biodiversity net gain, as set out in the Environment Act 2021, will be applied in England in 2023 through secondary legislation and amendments to the Town and Country Planning Act (TCPA) following a two year implementation period.

The Environment Act 2021 sets out the following components to mandatory biodiversity net gain:

- Minimum 10% gain<sup>7</sup> required calculated using Biodiversity Metric and approval of net gain plan;
- Habitat secured for at least 30 years via obligations / conservation covenants;
- Habitat can be delivered on-site, off-site or via statutory biodiversity credits;
- There will be a national register for net gain delivery sites;
- The mitigation hierarchy - avoidance, mitigation and compensation for biodiversity loss - still applies.

To determine whether there is 'no net loss' or a 'net gain' to biodiversity from a development project, a quantitative approach involving the use of a metric is required. The mitigation hierarchy must first be applied (see right). This requires that impacts should be first avoided, then reduced/mitigated and only as a last resort be compensated (offset). The UK Government's 'Biodiversity Metric 3.0' was published in 2021 with a simplified version to apply to smaller sites.<sup>8</sup> This metric provides a way of measuring and accounting for biodiversity losses and gains resulting from development or land management change.

### The Mitigation Hierarchy

1. Avoidance: Measures taken to avoid creating impacts from the start, e.g. through changing the location of the development;
2. Minimisation: Measures taken to reduce the duration, intensity, extent and/or likelihood of impacts that cannot be avoided;
3. Restoration/Rehabilitation: Measures taken to improve degraded ecosystems following exposure to impacts which cannot be completely avoided or minimised;
4. Offset: Measures taken to compensate for any residual, adverse impacts after full implementation of the previous three steps of the mitigation hierarchy.

Dover District Council's Local Plan Policy NE1 sets out the approach to be taken to biodiversity net gain within the district. This sets out that a minimum of 10% biodiversity net gain is required from development. This should be provided within the development site boundary, but if this cannot be achieved off-site alternatives or a financial contribution will be considered by the council. Biodiversity net gain proposals will be secured by condition and/or legal agreement. This will include a requirement to cover the council's costs associated with the long-term monitoring of the biodiversity net gain proposals. Applications for change of use in order to create biodiversity sites in appropriate locations, including biodiversity off-setting sites and sites within Local Nature Recovery Strategies will be supported.

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<sup>7</sup> The Kent Nature Partnership is considering 20% net gain.

<sup>8</sup> Sites of between one and nine dwellings on a site less than 1 hectare, or the site is less than 0.5 hectares.

# Sustainable Development

The 2030 Agenda for Sustainable Development is a historic global agreement to eradicate extreme poverty, fight inequality and injustice and leave no one behind. Agreed by world leaders at the UN in 2015, the 17 Sustainable Development Goals (SDGs) succeed the Millennium Development Goals (MDGs). The SDGs are universal with all signatories expected to contribute to them internationally and deliver them domestically.

This strategy contributes locally to the delivery of the United Nation's Sustainable Development Goals and contributes to some of the ways that the UK Government delivering SDGs.

## Sustainable Development Goals



# National and Local Plans and Strategies

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## National

### National Planning Policy Framework 2021

Positive planning for green infrastructure is a requirement of the National Planning Policy Framework (NPPF). Paragraph 20 of the NPPF sets out that strategic planning policies should:

*“... set out an overall strategy for the pattern, scale and design quality of places, and make sufficient provision for ... d) conservation and enhancement of the natural, built and historic environment, including landscapes and green infrastructure, and planning measures to address climate change mitigation and adaptation.”*

Furthermore, green and blue infrastructure planning should:

*“... take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.” (paragraph 175).<sup>9</sup>*

The NPPF also sets out that green and blue infrastructure planning should include delivery of measures to address local health and wellbeing needs, climate change adaptation and air quality issues.<sup>10</sup>

### Environment Act 2021

The Environment Act covers targets, plans and policies for improving the natural environment across a wide range of areas including, environmental reporting, air quality, water, nature and biodiversity and conservation covenants.

The legislation brings in a raft of new requirements for planners and decision-makers in councils in relation to nature and biodiversity. The changes of greatest significance to this strategy are detailed.

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<sup>9</sup> Paragraph 175 *“Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.”*

<sup>10</sup> Paragraph 92 *“Planning policies and decisions should aim to achieve healthy, inclusive and safe places which: ... c) enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.”*

Paragraph 154 *“New development should be planned for in ways that: a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; ...”*

Paragraph 186 *“... Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement...”*

## The Nature Recovery Network and Local Nature Recovery Strategies

The Nature Recovery Network (NRN) is a government initiative to create a national network of wildlife-rich places. It is a commitment in the Government's 25 Year Environment Plan and enacted by the Environment Act 2021. The NRN is intended to help to address the biggest challenges faced around biodiversity loss, climate change and wellbeing through. Through the creation of the network it is aimed to:

- Enhance sites designated for nature conservation and other wildlife-rich places;
- Improve the landscape's resilience to climate change, providing natural solutions to reduce carbon and manage flood risk, and sustaining vital ecosystems such as improved soil, clean water and clean air;
- Reinforce the natural, geological and cultural diversity of landscapes and protect our historic natural environment;
- Enable people to enjoy and connect with nature benefiting health and wellbeing.

### Objectives of the NRN

The creation of the NRN aims, by 2042, to:

- Restore 75% of protected sites on land (including freshwaters) to favourable condition;
- Create or restore 500,000 hectares of additional wildlife-rich habitat outside of protected sites;
- Recover threatened and iconic animal and plant species by providing more, diverse and better-connected habitats;
- Increase woodland cover;
- Achieve environmental, economic and social benefits, such as carbon capture, flood management, clean water, pollination and recreation.

Local Nature Recovery Strategies (LNRS) will also be an integral way of developing the NRN. These are a new system of spatial strategies for nature. They must identify the opportunities and priorities for enhancing biodiversity and supporting wider objectives such as mitigating or adapting to climate change in an area.

As spatial strategies, LNRS will establish priorities and map proposals for specific actions to drive nature's recovery and provide wider environmental benefits. Secondary legislation and statutory guidance, yet to be published, will contain the detail, but at a minimum each LNRS will include:

- Agreed priorities for nature's recovery;
- A map of the most valuable existing areas for nature;
- A map of proposals for creating or improving habitat for nature;
- Inclusion of wider environmental goals.



Local Nature Recovery Strategies will guide delivery of biodiversity net gain and other nature recovery measures by helping developers and planning authorities avoid the most valuable existing habitat and focus habitat creation or improvement where it will achieve the best outcomes. LNRS will be used to:

- Channel investment into local priorities for protection and enhancement, such as the Environment Land Management scheme;
- Map specific opportunities for the use of “nature-based solutions” to wider environmental problems like flooding, climate change mitigation and adaptation or poor water quality;
- Guide mandatory biodiversity net gain investments;
- Provide a source of evidence for local planning authorities to prepare their Local Plans, helping these authorities understand locations important for conserving and enhancing biodiversity.

Kent, with Medway, is currently developing a county Local Nature Recovery Strategy through the Kent Nature Partnership.

### Species Conservation and Protected Site Strategies

A Species Conservation Strategy is a new mechanism to safeguard the future of particular species at greatest risk, building on the existing district level licensing approach for great crested newts. A Protected Site Strategy will seek to achieve a similar purpose in respect of protected sites.

These strategies must provide a strategic approach to protecting and restoring species and habitats. The measures place a new duty on local planning authorities to cooperate with Natural England and other local planning authorities and public bodies to establish and implement the strategies, will link to Local Nature Recovery Strategies and will complement plans for biodiversity net gain.

### Strengthened Biodiversity Duty

This creates an expectation that authorities will look strategically at their policies and operations at least every 5 years and assess what action they can take ‘to further’ the conservation and enhancement of biodiversity, furthering the existing duty on public authorities<sup>11</sup> to have regard to the conservation of biodiversity. They must also have regard to the relevant Local Nature Recovery Strategies, Species Conservation Strategies and Protected Sites Strategies and should produce a Biodiversity Report.

### Duty to Consult – Trees

This introduces a duty on local highway authorities to consult with local communities before felling street trees unless the trees qualify for certain exemptions. This provides communities an opportunity to understand why a tree is being felled in their local area and to raise concerns to the local highway authority, increasing transparency around decisions over these green assets.

### Biodiversity Net Gain

See previous section.

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<sup>11</sup> Under the Natural Environment and Rural Communities (NERC) Act 2006.

## Other National Policies and Strategies

### England Trees Action Plan (2021)

This sets out the Government's long-term vision for trees, woodlands and forests in England. The plan sets out a 12% woodland cover target by mid-century.

### Environmental Land Management Schemes

These schemes are being revised following the UK's exit from the Common. These schemes include 'Farming in Protected Landscapes' through which landowners get funding to support and improve Areas of Outstanding Natural Beauty.

### 25 Year Environment Plan (2018)

This sets out the Government's intended actions to help the natural world regain and retain good health. It aims to deliver cleaner air and water in cities and rural landscapes, protect threatened species and provide richer wildlife habitats. Chapter 3, 'Connecting people with the environment to improve health and wellbeing', sets out ambitions for green infrastructure:

- Creating more green infrastructure
- Focus on accessible green infrastructure and links to communities and health and wellbeing
- Local authorities to assess green infrastructure against new standards
- Accessible greenspaces in areas which lack greenspace
- Incorporate 25 Year Environment Plan into national planning guidance and policy

### Green Infrastructure Standards

The development of Green Infrastructure Standards was a core commitment of the 25 Year Environment Plan. Natural England are developing a National Framework of Green Infrastructure Standards with the aim of rolling these out in 2022. The standards will set out ways of developing green infrastructure and to set levels of quality and attainment. The standards will be voluntary and local authorities will be encouraged to adopt and adapt the standards to fit their own local needs and targets. Local authorities could include the standards in their Local Plans.

### The Natural Environment and Rural Communities (NERC) Act (2006)

The NERC Act places a lead role on Local Planning authorities in addressing biodiversity losses. As a result, English Local Planning authorities have a statutory duty to show regard for conserving biodiversity in the exercise of all public functions.

### The Air Quality Strategy for England, Scotland, Wales and Northern Ireland

The National Air Quality Strategy sets out air quality standards and objectives. It introduces a new policy framework for tackling fine particles and identifies potential new national policy measures which modelling indicates could give further health benefits. The objectives of the strategy are to further improve air quality in the UK from today and long term and to provide benefits to health quality of life and the environment.

## Future Water: The Government's water strategy for England

Future Water sets out how the Government's aims for the water sector by 2030. This includes improving the supply of water, agreeing on important new infrastructure such as reservoirs, proposals to time limit abstraction licences, reducing leakage and tackling pollution to rivers and reducing discharge from sewers.

## Agriculture Act 2020

The Agriculture Act sets out how farmers and land managers in England will be rewarded in the future with public money for "public goods" – such as better air and water quality, thriving wildlife, soil health, or measures to reduce flooding and tackle the effects of climate change, under the Environmental Land Management scheme.

## Regional and County Plans and Strategies

### The Kent Biodiversity Strategy 2020 - 2045

The Kent Biodiversity Strategy (developed by the Kent Nature Partnership) aims to deliver, over a 25 year period, the maintenance, restoration and creation of habitats that are thriving with wildlife and plants, ensuring the county's terrestrial, freshwater, intertidal and marine environments regain and retain good health. The strategy seeks to protect and recover threatened species and enhance the wildlife habitats that Kent is particularly important for. It also aims to provide a natural environment that inspires citizen engagement and is well used and appreciated, so that the mental and physical health benefits of such a connection can be realised by the people of Kent.

The Biodiversity Strategy provides the detail and focus needed to achieve the natural environment aspirations of the Kent Environment Strategy, in particular to conserve and enhance the quality and supply of the county of Kent's natural and historical resources and assets. The Kent Biodiversity Strategy should provide a guiding framework for the delivery of Biodiversity Net Gain, the Local Nature Recovery Strategy and Nature Recovery Networks within the county

### Kent Environment Strategy (2016)

The Kent Environment Strategy sets targets in relation to the quality of the environment and improving biodiversity across the county. These are:

- decreasing the number of days of moderate or higher air pollution and the concentration of pollutants;
- Reduce the noise exposure from road, rail and other transport;
- Reduce water use from 160 to 140 litres per person per day;
- A minimum of 65% of Local Wildlife Sites will be in positive management and 95% of Sites of Special Scientific Interest (SSSI's) will be in favourable recovery by 2020;
- 60% of local wildlife sites will be in positive management;
- 95% of SSSI's will be in favourable or recovering status by 2020;
- Status of bird and butterfly species in Kent and Medway are quantified.

## Kent Downs AONB Management Plan 2021 – 2026

As a statutory plan required by the Countryside and Rights of Way Act 2000, the Kent Downs Area of Outstanding Natural Beauty (AONB) Management Plan 2021-2026 sets out the shared vision of the future of this special landscape. The plan identifies the key issues, opportunities and threats facing the landscape and sets out aims and principles for the positive conservation and enhancement of the Kent Downs for a five-year period. The goal of the Management Plan is to ensure that the natural beauty and special character of the landscape and vitality of the communities are recognised, valued, enhanced and strengthened well into the future.

### Other Regional and County Plans and Strategies

A range of other local strategies and plans were reviewed as part of this strategy. This included those listed below. A full list of evidence supporting this report is included in the Bibliography.

- Environment Agency - The State of Water in Kent (2012);
- Isle of Grain to South Foreland SMP Review 2010;
- Kent County Council Active Travel Strategy (2017);
- Kent Habitat Survey (2012);
- Kent Landscape Assessment (2004);
- Kent Minerals and Waste Local Plan 2013 – 2030;
- Kent and Medway Growth and Infrastructure Framework (2015);
- Kent Local Transport Plan 4 – Delivering Growth without Gridlock 2016 – 2031;
- Kent and Medway Air Quality Partnership Air Quality Planning Guidance (2015);
- Kent Rights of Way Improvement Plan (2018);
- Kent Water for Sustainable Growth Study (2017);
- South Foreland to Beachy Head Shoreline Management Plan (2006).

## Local Plans and Strategies

### Dover District Local Plan

Dover District Council is in the process of producing a new Local Plan. Consultation was held on the Regulation 18 draft Dover District Local Plan in 2021, with consultation on the Regulation 19 Pre-Submission of the Local Plan scheduled for 2022. Examination is expected to take place in 2023. The new Local Plan will set out proposals for new development in the district between 2020 and 2040. This green and blue infrastructure strategy provides evidence for the new Local Plan.

In the overarching vision of the Local Plan, the outstanding quality of the natural environment is recognised:

#### Spectacular and Sustainable Environment

*“Above all, the district will be defined by its enviable countryside and coastal environments . The climate change emergency will have resulted in increased opportunities for local food production, extensive tree planting, and the adoption of sustainable design and construction methods. From the iconic White Cliffs to the nationally valued chalk downlands of the Kent Downs AONB, international, national and locally protected landscapes, wildlife sites, habitats and species will have been protected and enhanced. Air quality and biodiversity will have been improved, and a net gain delivered in biodiversity as the district achieves significant progress to becoming net zero carbon.”*

Strategic Policy 14 sets out the district’s approach to green infrastructure and biodiversity.

#### Strategic Policy 14: Green Infrastructure and Biodiversity

*“Measures that conserve and enhance the green infrastructure and biodiversity of the district will be supported.*

*All development will be required to connect to and improve the wider ecological networks in which it is located. In particular, proposals must safeguard features of nature conservation interest, and retain, conserve and enhance habitats, including internationally, nationally and locally designated sites, irreplaceable and priority habitats, networks of ecological interest, ancient woodland, chalk grasslands, water features, hedgerows, beaches, wetland pastures and foreshores, as green and blue corridors and stepping-stones for wildlife.*

*Development should ensure that the integrity of the existing network of green infrastructure, including the hierarchy of protected sites, the Local Nature Recovery Network and Biodiversity Opportunity Areas across the District is strengthened as part of proposals, in order to increase the contribution to health and wellbeing, carbon sequestration and resilience to climate change delivered by such green infrastructure. Opportunities for the management, restoration and creation of habitats in line with the targets set out in the Local Nature Recovery Strategy, the Kent Biodiversity Strategy for the Biodiversity Opportunity Areas (BOAs) in the District and the Dover District Green Infrastructure Strategy will be supported.*



Several other policies are relevant to green and blue infrastructure, including:

- Strategic Policy 13: Protecting the District's Hierarchy of Designated Environmental Sites
- Strategic Policy 1: Planning for Climate Change
- Policy TI1: Sustainable Transport and Travel
- Policy CC4: Water Efficiency
- Policy CC5: Flood Risk
- Policy CC6: Surface Water Management
- Policy CC7: Coastal Change Management Areas
- Policy CC8: Tree Planting and Protection
- Policy PM3: Providing Open Space
- Policy PM5: Protection of Open Space
- Policy NE1: Biodiversity Net Gain
- Policy NE2: Landscape Character and the AONB
- Policy NE3: Thanet Coast and Sandwich Bay SPA Mitigation Strategy
- Policy NE4: Air Quality
- Policy NE5: Water Supply and Quality
- Policy NE6: The River Dour
- Policy HE1: Designated and Non-designated Heritage Assets
- Policy HE4: Historic Parks and Gardens

## Dover District Core Strategy (2010)

Dover's Core Strategy was adopted in February 2010. At the time of this report, until the adoption of the replacement Local Plan, it remains the current strategic planning document for the district.

The Core Strategy recognises that green and blue infrastructure is necessary infrastructure to support development. The Core Strategy defines green and blue infrastructure as all forms of recreational open spaces and areas of importance or potential for wildlife. A spatial network of green and blue infrastructure is shown, along some pressures and potential improvements to the network. Policy CP7 covers green infrastructure:

*"Green Infrastructure Network - The integrity of the existing network of green and blue infrastructure will be protected and enhanced through the lifetime of the Core Strategy. Planning permission for development 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."*

## Neighbourhood Plans

Neighbourhood Planning was introduced through the Localism Act 2011 as a mechanism for local communities to shape development in their area. The NPPF enables local communities, through Neighbourhood Plans, to identify land for Local Green Space designation which prevents development on sites other than in very special circumstances.

There are two adopted Neighbourhood Plans in Dover district (covering the settlements of Worth and Ash), with four further parish councils that have applied to produce a plan.<sup>12</sup>

### Worth Neighbourhood Development Plan

The Worth Neighbourhood Development Plan was prepared by Worth Parish Council and was made part of Dover District Council's Development Plan on the 28 January 2015, following a referendum on the 6 November 2014.

Provisions relevant to this green and blue infrastructure strategy are:

- Improvements to cycle routes to link to Deal, the National Cycle Route 1 and Regional Cycle Route 15 and to Betteshanger Country Park;
- Subject to assurances on flooding, pond overflow, mosquitoes, visitor vehicle and pedestrian access, the planned RSPB nature reserve is supported;
- Development to include mitigation measures in relation to the Thanet Coast and Sandwich Bay SPA, where necessary;
- The plan identifies two Local Green Spaces to be protected for local importance;
- A possible new nature reserve on parish council owned land.

### Ash Neighbourhood Plan

The Ash Neighbourhood Development Plan was prepared by and was made part of Dover District Council's Development Plan of 15 September 2021 following a referendum on the 22 July 2021.

Policies relevant to this green and blue infrastructure strategy are:

- Policy ANP1 – Development in the Countryside
- Policy ANP2 – Designated local greenspaces
- Policy ANP3 Green and open spaces in new developments
- Policy ANP4 – Biodiversity
- Policy ANP5 Climate Change
- Policy ANP15 - Transport

The Ash NDP Group has undertaken a greenspaces assessment that identified the areas of green spaces and where there is a need to enhance or increase them. The group has identified the importance of these spaces being linked to ensure people can walk or cycle to and between open spaces.

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<sup>12</sup> Dover Town, Sandwich, Shepherdswell, St Margaret's and Langdon.

## Dover District Council Corporate Plan 2020 - 2024

Dover's Corporate Plan provides the overarching strategic direction for Dover District Council between 2020 and 2040. It has five corporate objectives, all of which are relevant to this green and blue infrastructure strategy:

- Regeneration – Tourism and Inward Investment – Providing a clear vision and direction of place-shaping for the district, creating a vibrant destination with good transport links, making tourism everyone's business. Supporting the business community to enable a thriving local economy that provides the jobs, services, training and career opportunities that we need.
- Housing and Community – Enable a range of good quality affordable homes for our residents in an attractive environment, and work to build healthy, resilient and sustainable communities, where residents have good access to facilities and transport links to further their wellbeing;
- Climate change, Environment and Assets – a cleaner sustainable environment – Support the wider climate change agenda to facilitate a better environment for everyone. Support the development and protection of our environment and open spaces, making the most of our enviable landscapes, heritage and assets and making our parks destinations of activity, recreation and community;
- Working Smartly and Delivering Services – Continue to develop out business to be more effective, efficient and forward looking for the benefit of our residents.

## Dover District Landscape Character Area Assessment (2020)

The Local Landscape Character Area Assessment provides a comprehensive and up to date strategic district scale landscape evidence to provide a framework for more detailed landscape studies and sensitivity assessments. The report also provides an evidence base to underpin the update of the Local Plan and to assist in the Local Planning process. It informs both policy and development management, guiding development that is sympathetic to local character and the qualities of the landscape. Wider application of the Landscape Character Assessment includes land management, notably implementation of agri- environment schemes, and land use change to achieve net zero, including opportunities for woodland creation. It provides detail on opportunities for conserving existing character, strengthening, and enhancing character as well as opportunities to create new character.

## Dover District Council Open Space and Play Standards Paper and Assessment Report (2019)

This Open Spaces and Play Assessment and accompanying Standards Paper provides detail on existing levels of open space and what types of provision should be considered as a priority. The documents help to identify the deficiencies and surpluses in existing open space provision. In addition, they help inform an approach to securing open space facilities through new housing development and help form the basis for negotiation with developers for contributions towards the provision of open spaces.

## Thanet Coast SPA Mitigation Strategy (2012) (update in preparation 2022)

The current mitigation strategy for the Thanet Coast and Sandwich Bay SPA applies a tariff across the whole of Dover district to monitor and mitigate the impacts of development with the district. The revised strategy proposes that a 'Zone of Influence' is established and that development taking place within this zone will provide a financial contribution to the delivery of monitoring and mitigation measures. The revised strategy will be adopted alongside the new Local Plan.

## Dover District Council Economic Growth Strategy (2021)

The Economic Growth Strategy sets out Dover District Council's vision and long-term plan for economic growth. There are five themes – creating economic value, delivering infrastructure for growth, revitalising town centres, harnessing tourism and the visitor economy and a thriving rural economy. This green and blue infrastructure strategy, and the wide range of actions in it, underpin the broad aspirations of the Growth Strategy.



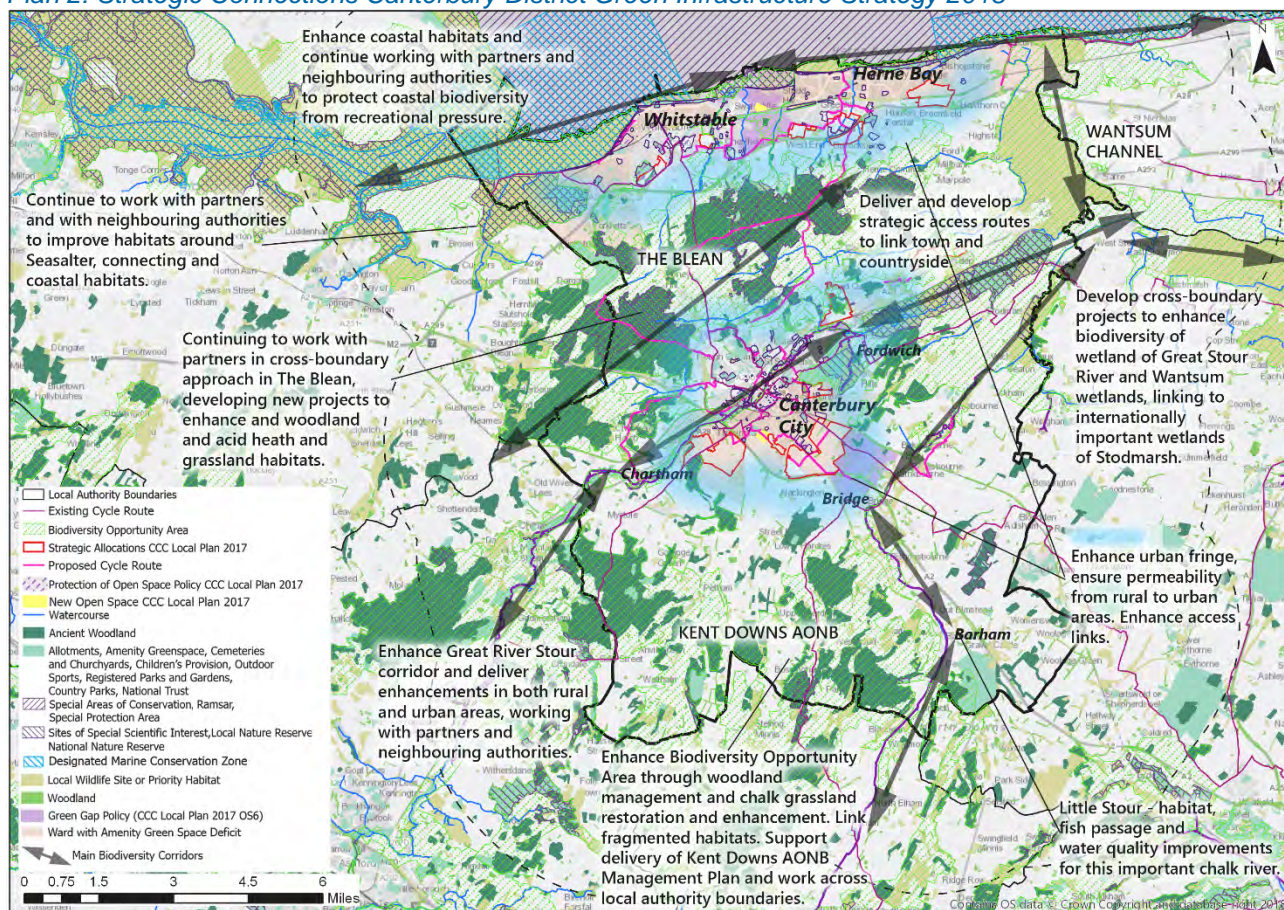
# Green and Blue Infrastructure Strategies of Neighbouring Authorities

Strategic network links to neighbouring authorities are shown in Plan 1.

## Canterbury City Council

Canterbury City Council has a suite of documents relating to green infrastructure. The Canterbury District Green Infrastructure Strategy 2018 – 2031, and the accompanying evidence report and action plan support the council's Local Plan. The strategy highlights cross-boundary links with Dover district to enhance the River Stour and associated wetlands in the Wantsum Channel and wider Stour valley. The area around Barham, with its concentration of woodlands, many of them ancient, is also an area of ecological connection, with some areas within the East Kent Woodlands and Downs Biodiversity Opportunity Area. This area lies at the convergence of three districts, with connections to Folkestone and Hythe district.

Plan 2: Strategic Connections Canterbury District Green Infrastructure Strategy 2018



## Folkestone and Hythe District Council

Folkestone and Hythe District Council's revised green and blue infrastructure strategy is in preparation in 2022. The revised strategy will replace the Green Infrastructure Report 2011.

In the south east of Dover district the woodlands and chalk grassland extend into Folkestone and Hythe district, falling in two Biodiversity Opportunity Areas – the East Kent Woodlands and Downs and the Dover and Folkestone Cliffs and Downs. This part of the district is in the Kent Downs Area of Outstanding Site or Priority Natural Beauty.



To the south, the Heritage Coast straddles the boundary. Folkestone Warren Site of Special Scientific Interest (SSSI) straddles the boundary of Folkestone and Hythe and Dover districts. The village of Capel-le-Ferne is located within Dover district on the border with Folkestone and Hythe, and benefits from access to Folkestone Warren Local Nature Reserve.

### Thanet District Council

Thanet District Council does not have a green infrastructure strategy. The council notes in its that strategic priorities for cooperation across boundaries include enhancement of the natural environment, including landscapes and green infrastructure and planning measures to address climate change mitigation and adaptation.

Areas of cross-boundary connections, where joint working would be beneficial, are Sandwich and Pegwell Bay and the River Stour and Wantsum Channel.

### Other Relevant Local Plans and Strategies

A range of other local strategies and plans were reviewed as part of this strategy. This included those listed below. A full list of evidence supporting this report is included in the Bibliography.

- Destination White Cliffs Country – Growth Strategy for Tourism and the Visitor Economy 2020 – 2030;
- Dover Area Air Quality Study (2021);
- Dover District Council Playing Pitch Strategy Assessment Report and Action Plan (2019)
- Dover District Strategic Flood Risk Assessment (2019);
- Environment Agency Waterbody Improvement Plans (2018);
- Sustrans Cycling Audits (Aylesham, Dover, Deal and Sandwich) (2020);
- Up on the Downs Landscape Partnership Scheme (various).

# Strategic Priorities

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The following are the strategic priorities for green and blue infrastructure in Dover district. These are derived from analysis of the evidence base, as set out in this report. These strategic priorities are expanded upon in the following sections of this report.



# Biodiversity

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## Introduction

Dover district has a wealth of nature conservation sites and important species. The coast is internationally protected for its wildlife value, as well as being a Heritage Coast. There is rare chalk grassland on the Kent Downs and especially in and around Dover town. The diverse habitats of the district support a range of rare and specialised species.

- Around 6.5% of Dover District is with a Site of Special Scientific Interest – around 2061 hectares.
- Dover has around a quarter of Kent's chalk grassland – the greatest of any district.
- Dover has around a quarter of Kent's maritime grassland.
- It is important for a range of coastal habitats.

### Links to Ecosystem Services

Biodiversity is a supporting ecosystem service. There is growing evidence that the stability of ecosystem service provision improves with greater biodiversity. Biodiversity sustains many ecosystems services, including provision of clean water, climate regulation, pollination and access, but despite efforts to reverse biodiversity loss, many species and habitats continue to decline. Overall, however, there has been significant biodiversity loss in the last 50 years, with the main drivers being land use change and pollution.

## Designated Sites

### Internationally and Nationally Designated Nature Conservation Sites

Sites of Special Scientific Interest are designated sites of national biodiversity importance. There is not always public access to these sites. National Nature Reserves (NNRs) represent the best examples of (usually) SSSIs and are designated for biodiversity and scientific study and there is usually public access.

There are also five European sites in Dover district, protected under the Conservation of Habitats and Species Regulations 2017 (as amended). These sites, collectively forming part of the 'National Site Network', are sites which are of international importance for their biodiversity. Designated sites are shown Tables 1 and 2 and Plan 3.

The three designations are:

- Special Protection Areas (SPA) are designated to safeguard the habitats of migratory birds and certain particularly threatened birds;
- Special Areas of Conservation (SAC) are strictly protected sites;
- Ramsar sites are wetlands of international importance listed under the Ramsar Convention.

Table 1: Internationally and Nationally Designated Sites

Site	Description
Dover to Kingsdown Cliffs SSSI, SAC	The coastline from Dover harbour to Kingsdown is of extreme importance due to its geology and landform. It is also very important for its varied flora and fauna, which includes many rare species. Part of the SSSI is also a SAC.
Folkestone Warren SSSI	This coastal site, comprising steep chalk cliffs and foreshore exposures is located just to the east of Folkestone. The cliff sections at the western end of the Warren are the most important single location for studying Cretaceous age rocks in England. Folkestone Warren SSSI crosses into Dover district. Samphire Hoe, 3 kilometres west of Dover town within the Folkestone Warren SSSI, is a 35 hectare park which attracts around 110,000 visitors each year. The park was created using 4.9 million cubic metres of chalk from the Channel Tunnel excavations Samphire Hoe is owned by Eurotunnel PLC and managed in partnership with the White Cliffs Countryside Partnership.
Alkham, Lydden and Swingfield Wood SSSI	This designation incorporates a series of ancient woodlands to the west of Dover in and around the Alkham valley.
Lydden and Temple Ewell Downs SSSI, SAC	This site lies just outside the Kent Downs Area of Outstanding Natural Beauty. The site which is also a 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.
Thanet Coast and Sandwich Bay Ramsar, Sandwich Bay SAC, Sandwich Bay to Hacklinge Marshes SSSI, Sandwich and Pegwell Bay NNR.	<p>The area around Sandwich and Pegwell Bay is highly designated, reflecting its outstanding nature conservation interest. Areas are designated as Ramsar, Special Protection Area and Special Area of Conservation, National Nature Reserve and SSSI. There is also a Local Nature Reserve.</p> <p>This SSSI contains the most important sand dune system and sandy coastal grassland in South East England as well as a wide range of other habitats such as mudflats, saltmarsh, chalk cliffs, freshwater grazing marsh, scrub and woodland. Part is designated as a SAC for its sand dunes and their rich flora.</p> <p>Thanet Coast and Sandwich Bay SPA consists 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. The Ramsar covers a similar to the SPA but also includes important wetland invertebrates.</p>

## Heritage Coasts

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 (see Plan 3).

- 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;
- 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. Most 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.

## Marine Conservation Zones

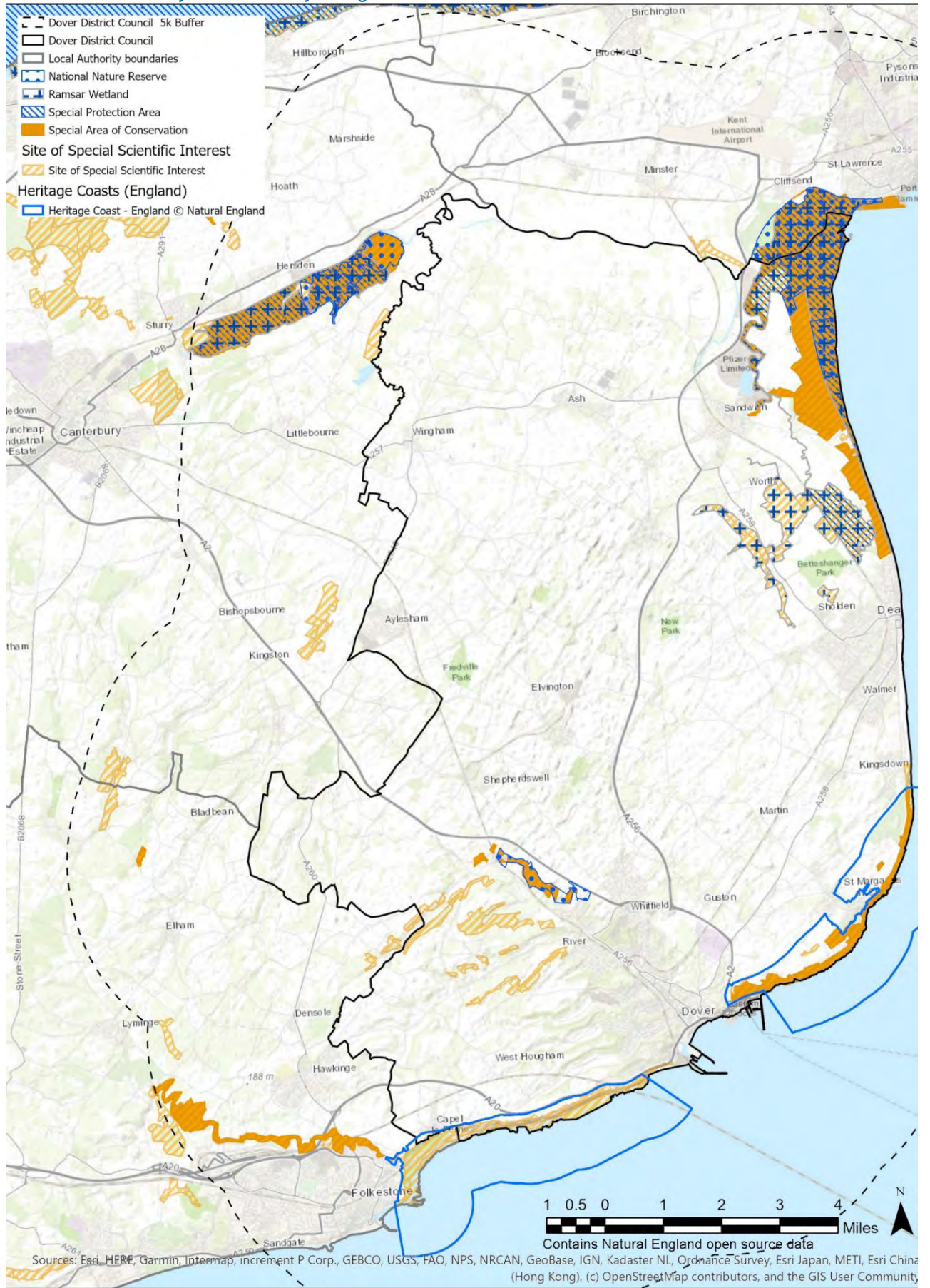
There are two Marine Conservation Zones (MCZs) in Dover district and three lying further offshore, see Plan 4.

- Dover to Folkestone MCZ – Designated in 2016. This MCZ is a highly diverse area with several habitats and features of interest. The chalk communities on the seashore are one of the best examples in the region, supporting a range of seaweeds and the animals that associate with them. Rocky outcrops, ledges and boulders support intertidal under boulder communities, an important habitat, of which this example is one of the best examples in the region. Boulders create shaded areas that provide a refuge to sea squirts, sea mats, and sponges. The undersides of the boulder provide a habitat for animals like sea slugs, long-clawed porcelain crabs and brittlestars. Crabs, fish and young lobsters also scavenge for food and seek shelter amongst the boulders. On the seabed, mixed sediment is rich in mobile animals including brittlestars, squat lobsters, crabs, fish and molluscs and wild native oysters.
- Dover to Deal MCZ – Designated in 2016. The site helps to protect intertidal under boulder communities, where large boulders provide shaded, cave-like conditions for unusual algae to thrive, and mobile animals such as long-clawed porcelain crabs, sea slugs and brittlestars shelter among sponges. Crabs, fish and young lobsters also scavenge for food and seek shelter amongst the boulders. This site includes excellent examples of littoral chalk communities which are unique communities of seaweeds and animals. Areas of littoral chalk are small in range and are limited within Britain. The area also includes the best example in the region of wave-cut platforms, flat areas at the base of a cliff formed by wave erosion. The chalk foreshore at St Margaret's Bay has one of the richest communities of algae in the south east. As well as Ross worm reefs subtidal off Kingsdown, there is a well-developed Ross worm reef between Dover and South Foreland. The presence of Ross worm reefs on chalk reefs is extremely rare, and this reef is also thought to seed more vulnerable reefs offshore.



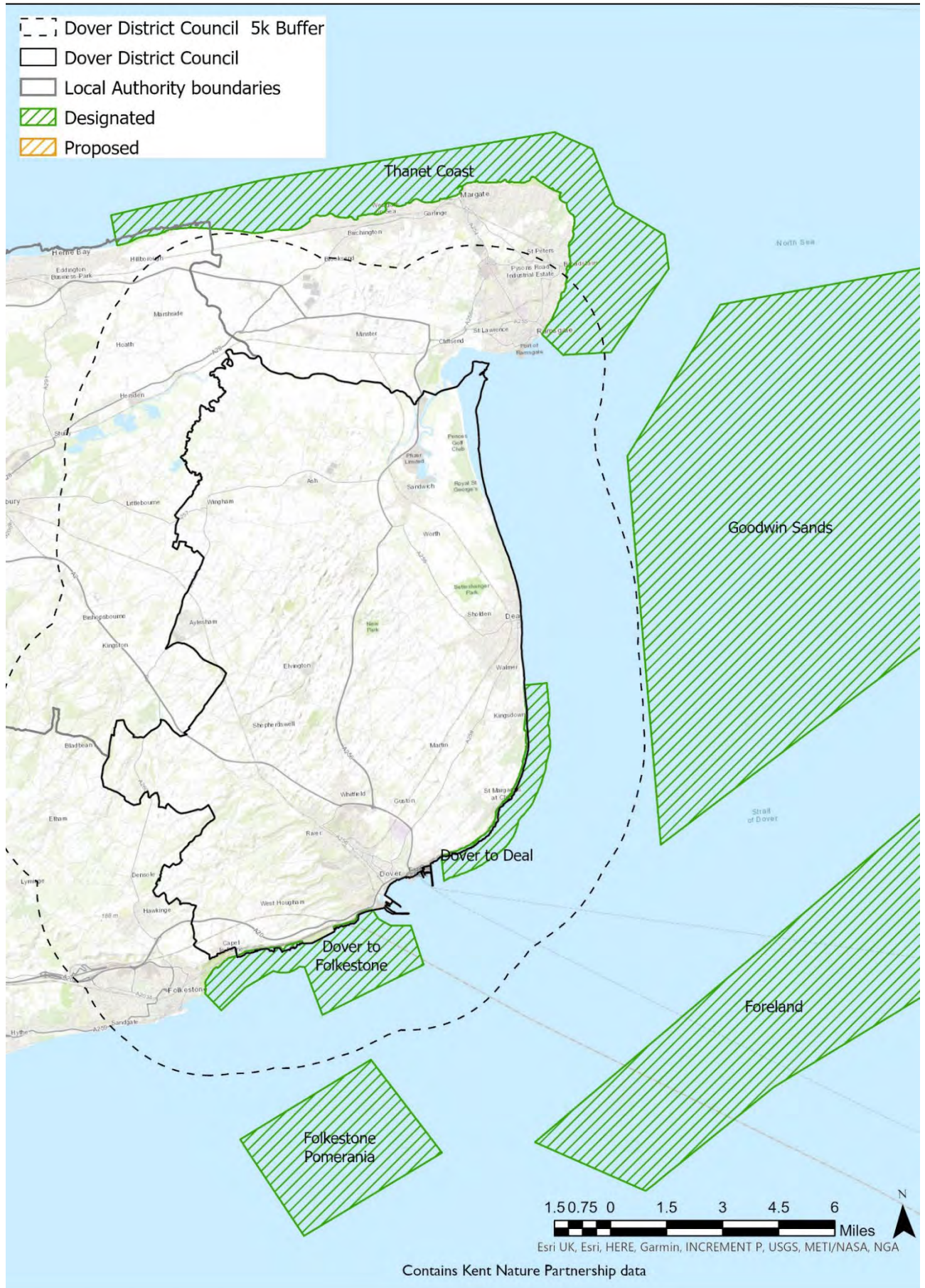
- Goodwin Sands MCZ – Designated in 2019, the Goodwin Sand MCZ is a large, dynamic and constantly changing area of sand and coarse sediments off Sandwich Bay. It is regularly exposed at low tide, providing an important haul out site for harbour and grey seals and foraging grounds for birds. There are also deeper areas of subtidal coarse sediment of particularly high biodiversity. The site also contains Ross worm reefs and blue mussel beds and supports a range of species including bryozoans, pink sea fans, cup corals, anemones, soft corals, sponges, sea squirts and red algae, as well as commercially important shellfish and fish. The site also protects the English Channel outburst flood features which form a deep channel in the eastern side. This feature is evidence of a megaflood that occurred approximately 200,000 years ago leading to the separation of England from mainland Europe.
- Folkestone Pomerania MCZ – Designated in 2013, this MCZ lies further into the English Channel. This site protects six different habits of sediment and rock. The soft, muddy areas within the MCZ support dense ross worm and honeycomb worm reefs, created from tubes of sediment and shell fragments.
- Foreland MCZ – Designated in 2019, Foreland MCZ is an inshore site in the English Channel. It contains a variety of different habitats ranging from subtidal sand to coarse sediments and rocky habitats and supports a wide diversity of species. A large proportion of the site is subtidal sediments that provide habitats to animals such as worms, bivalve molluscs (such as clams, cockles and mussels), burrowing anemones, sand eels and fish. The north of the site is known for its distinct richness of species living on or in the seabed. The site also includes deep water rock habitats subject to moderate to high wave energy or tidal currents. These are dominated by animal communities as there is insufficient sunlight for seaweed growth. The types of animals that thrive here include colourful sponges clinging to rock and a dense 'carpet' of sea fans and cup corals, alongside anemones, and sea squirts. Commercially valuable crustaceans, such as lobsters and crabs, shelter within rocky crevices and a range of fish species, such as wrasse and topknots, forage in this habitat.

Plan 3: Internationally and Nationally Designated Nature Conservation Sites





Plan 4: Marine Conservation Zones



## Locally Important Sites

Locally important sites are shown in Plan 5.

### Local Nature Reserves

Local Nature Reserves (LNRs) are locally designated sites which are important for both people and wildlife and there is usually public access. There are four Local Nature Reserves (LNRs) in Dover district, see Table 3.

*Table 2: Local Nature Reserves*

Site	Description
High Meadow	High Meadow is an area of common land perched on one of Dover's hilltops and offering panoramic views of the town in all directions. Several orchids thrive at High Meadow including fragrant, common spot and pyramidal. The site is grazed by a herd of Konik horses. The herd graze this site for some of the year and neighbouring Whinless Down the rest of the time. Grazing helps to give a greater variety of plants and animals opportunities to survive and prevents others from dominating. Managed by the White Cliffs Countryside Partnership (WCCP) on behalf of Dover Town Council. Adjacent to Whinless Down.
Whinless Down	Whinless Down Nature Reserve is home to a rich variety of wildlife and has some great views of Dover Castle. Several rare plant and invertebrate species can be found on the site. Rare plants found at Whinless Down are cypress spurge, Horseshoe vetch and Crown vetch, you can also find the rare butterflies and moths Adonis blue, chalk hill blue, scarce forester moth or the Silver spotted skipper. Adjacent to High Meadow. Managed by the WCCP on behalf of Dover Town Council.
Princes Beachlands	Part of the Sandwich Bay suite of designated sites. A complex mosaic of habitats of international importance for its bird population. A family day out birdwatching, butterflies, fungi and reptiles. Managed by KWT for DDC.
Western Heights	The Western Heights Nature Reserve is carved into a hill, and is an interesting place, which is full of surprises. It is surrounded by chalk meadows that are full of colourful wildflowers, butterflies and birds. There are also some splendid views of the English Channel. One of the largest and strongest Napoleonic fortresses in the country is located at the site. Managed by WCCP, on behalf of DDC and English Heritage.



Natural England developed the Accessible Natural Greenspace Standard (ANGSt), which recommends that everyone, wherever they live, should have accessible natural greenspace. The standard recommends a minimum of one hectare of statutory Local Nature Reserves per thousand population. The four Local Nature Reserves total approximately 98 hectares. This equates to 0.83 hectares per person, based on 2018 population estimates. This is slightly below the recommended level. However, as there are only four sites, three of which are near Dover town, access to an LNR is not locally available to all residents.

## Local Wildlife Sites

Local Wildlife Sites (LWS) are important nature conservation sites. They are identified and selected locally, by partnerships of local authorities, nature conservation charities, statutory agencies, ecologists and local nature experts at the county level, using robust, scientifically-determined criteria and detailed ecological surveys. Their selection is based on the most important, distinctive and threatened species and habitats within a national, regional and local context.

## Other Nature Reserves

Nature conservation charities also manage sites within Dover district. Many of these are also protected by a nature conservation designation.

The Kent Wildlife Trust manages six nature reserves in Dover district:

- Ham Fen – An old fenland site has wet grassland with deep mires, dykes and ditches. The last surviving ancient fen habitat in Kent. Considerable damage was caused by two major episodes of land drainage in the 18th century and early 1980s, which led to significant habitat deterioration and loss of wetland species. The reserve was established in 1991. Work to repair the natural environment includes the successful reintroduction of beaver to the site, which first took place in 2002;
- Sladden Wood - A small piece of woodland surrounded by farm fields to the west of Dover town. The locals call this woodland Horizontal Wood. This belies a tragic history where all the trees were completely felled in 1978, leaving behind stumps. However, protection was put in place and the woodland regenerated. Looking at it now, you would not know that the woodland experienced that sort of mass wipe-out. Now it is once again a haven for wildlife, from the intricate yellow archangels to the mix of classic trees of hazel, ash and field maple;
- Nemo Down – A chalk grassland site to the west of Dover town. Nemo Down forms the north facing slope of the same Local Wildlife Site as Whinless Down and is owned by Kent Wildlife Trust. A lack of grazing in recent years had allowed areas of scrub to dominate the parts of the slope and tor grass to become the dominant grass species. Surveys in 2001 revealed a variety of both grass species and broad leaved plants typical of chalk downland communities. The removal of scrub and the reintroduction of grazing is beginning to encourage the fine turf chalk grassland species to return. The close proximity of Whinless Down provides the potential for the return of notable invertebrate species such as the Adonis blue, chalk hill blue, small blue, silver spotted skipper and straw belle moth;
- Old Park Hill - This site has a range of habitats including woodland, scrub, chalk grassland and neutral grassland. It has the potential to be a site for wildlife such as Adonis blue butterflies, reptiles and orchids. Old Park Hill has not been actively managed for over a decade and as such the landscape interest of the site has been greatly reduced by the encroachment of scrub on to the chalk grassland and the neglect of the woodland areas. Suitable conservation

management would restore the site to its early 20th century character, when most of the site would have been open chalk grassland with scattered scrub and grazed with animals;

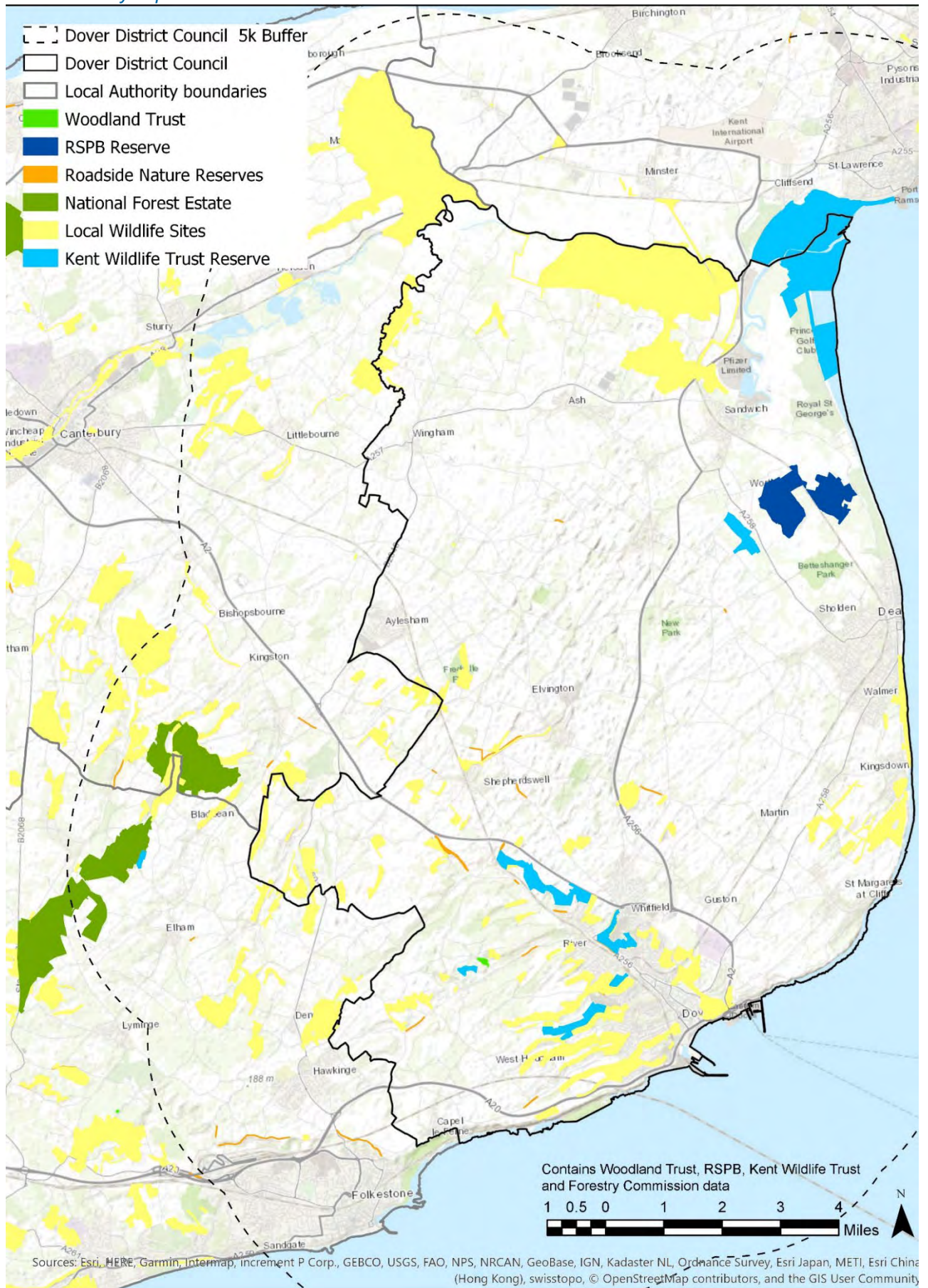
- Sandwich and Pegwell Bay – This complex mosaic of habitats, including Kent's only ancient dune pasture, hosts many rare plants and animals. Important for migrating and summer birds. Also a SSSI, NNR, Ramsar, SAC and SPA;
- Lydden Temple Ewell – The James Teacher Reserve – chalk grassland to the north of Dover town. In summer slopes full of a diversity of grassland flowers, including orchids. This site is a place to go to see an overwhelming spectacle of butterflies, from the rich blue of the Adonis blue butterfly to the small splashes of white and brown of the silver-spotted skipper. Over 20 species of butterflies have been counted on the reserve. Also a SSSI and SAC.
- Coombe Down - Coombe Down is a former area of chalk grassland close to Dover town. Due to a lack of management since the 1950s, Coombe Down has become badly scrubbed over, losing some of the iconic chalk grassland species in the process. Indeed, it was the last site in Kent for the Frog orchid.

The RSPB owns an area of land to the south Sandwich, in Sandwich Bay. The Lydden Valley Reserve is an area of former grazing marsh which has been drained for farming. The RSPB intend to raise water levels and restore the shallow, meandering watercourses and marshes which provide vital areas for birds.

Sandwich Town Council manages two other sites as nature reserves – Gazen Salts Nature Reserve and Monks Wall Nature Reserve.

Roadside Nature Reserves are also important nature conservation areas. The Kent and Medway Road Verge Project identifies, protects and manages road verges which contain threatened habitats or wildlife. The Project is a partnership between Kent Highways Services and Kent Wildlife Trust.

Plan 5: Locally Important Wildlife Sites and Reserves





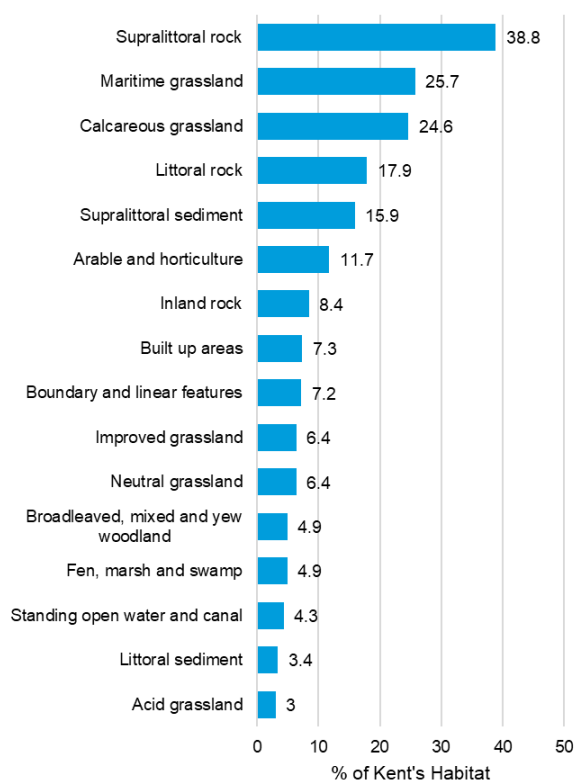
## Biodiversity in Dover District

There are a range of important habitats in Dover district. Priority habitats as mapped by Natural England are shown in Plan 6. Charts to the right show data from the Kent Habitat Survey 2012.

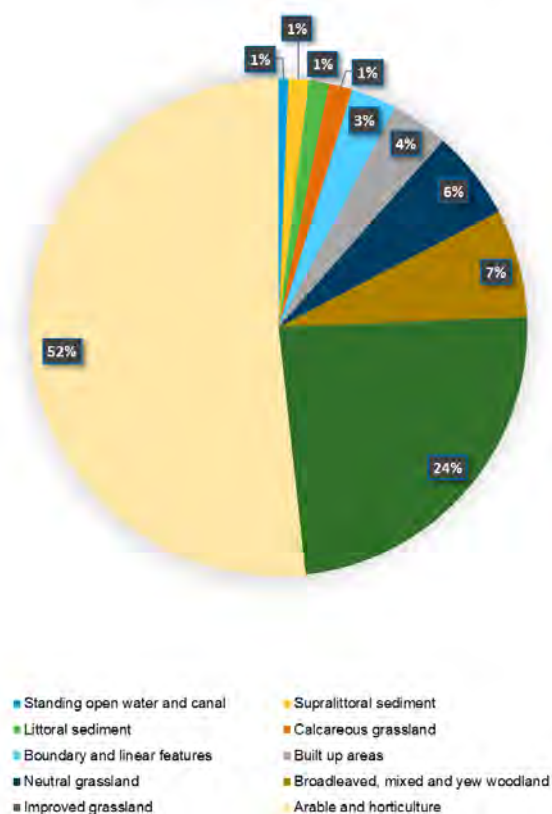
- Coastal habitats** – With a long and varied coastline, Dover is very important for a range of coastal habitats. These habitats are in the intertidal zone (littoral rock), include the cliffs which run along the high water mark (supralittoral rock) and the coast which consists of mud, sand or shingle (supralittoral sediment). Dover has an exceptional range of these habitats, including dunes, shingle vegetation and mudflats. At Sandwich Bay are dunes, vegetated shingle and mudflats which support a range of specialist plants and animals, as well as being very important for birds. There are also areas of vegetated shingle along the coast at Walmer and Deal. The iconic cliffs from Dover to Kingsdown support a range of species and at the base are wave-cut chalk platforms where the cliffs are not protected by shingle. Cliffs extend to the west to Capel le Ferne and on to Folkestone. A large extent of Dover's coastal habitats are protected by a national or international designation.

- Calcareous grassland** – Dover has nearly a quarter of Kent's chalk grassland habitat, at 24.6%. Chalk grassland is concentrated within the Kent Downs Area of Outstanding Natural Beauty. The valleys and hills around Dover town are particularly significant for this habitat, bringing this internationally important habitat in close proximity with many people. Chalk grassland also extends along the cliffs from Dover town to Kingsdown.
- Fens, grazing marsh and maritime grassland** – Between Deal and Sandwich is an area of fen and grazing marsh. Some areas are being restored and improved as wildlife habitat. There is also grazing marsh to the north adjacent to the Stour estuary north of Sandwich as well as some smaller areas along the Great Stour. There are areas of maritime grassland at several coastal locations, including Walmer, Kingsdown, Langdon Cliffs and Folkestone Warren.

Dover Habitats as % of Kent's Habitats  
(Habitats > 3%)



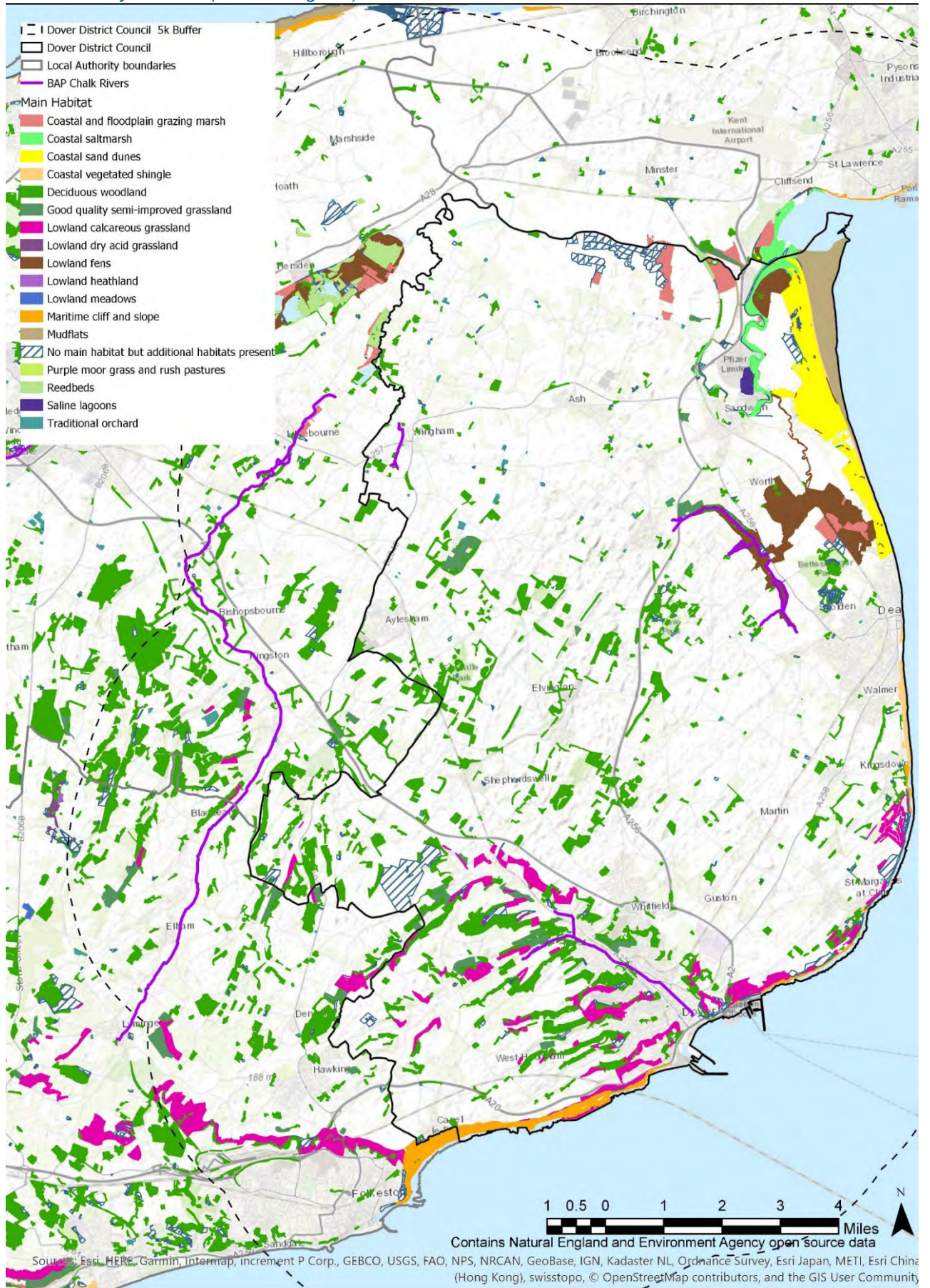
Habitats as % of Dover District  
(>1%)



- Broadleaved, mixed and yew woodland – There is proportionately less woodland than many other districts, with only 6.9% of the district covered by broadleaved, mixed and yew woodland. However, this contains 10.6% of the County's UK Biodiversity Action Plan (BAP) Lowland beech and yew woodland priority habitat. This woodland is with several small woodlands around the villages of Chillenden, Eythorne, Shepherdswell and Tilmanstone.
- Ancient woodland – Ancient woodland is woodland which has been in existence since at least 1600 AD. These woodlands can be especially important for wildlife, with a rich array of species associated with them. Ancient woodland is classed as 'irreplaceable' under the National Planning Policy Framework. Most of Dover district's ancient woodland is located within the Kent Downs Area of Outstanding Natural Beauty, see Plan 7. Lords Wood is a large area of ancient woodland near Ewell Minnis. There are also ancient woodlands around Alkham, West Hougham and further to the east south of Eythorne and Shepherdswell.

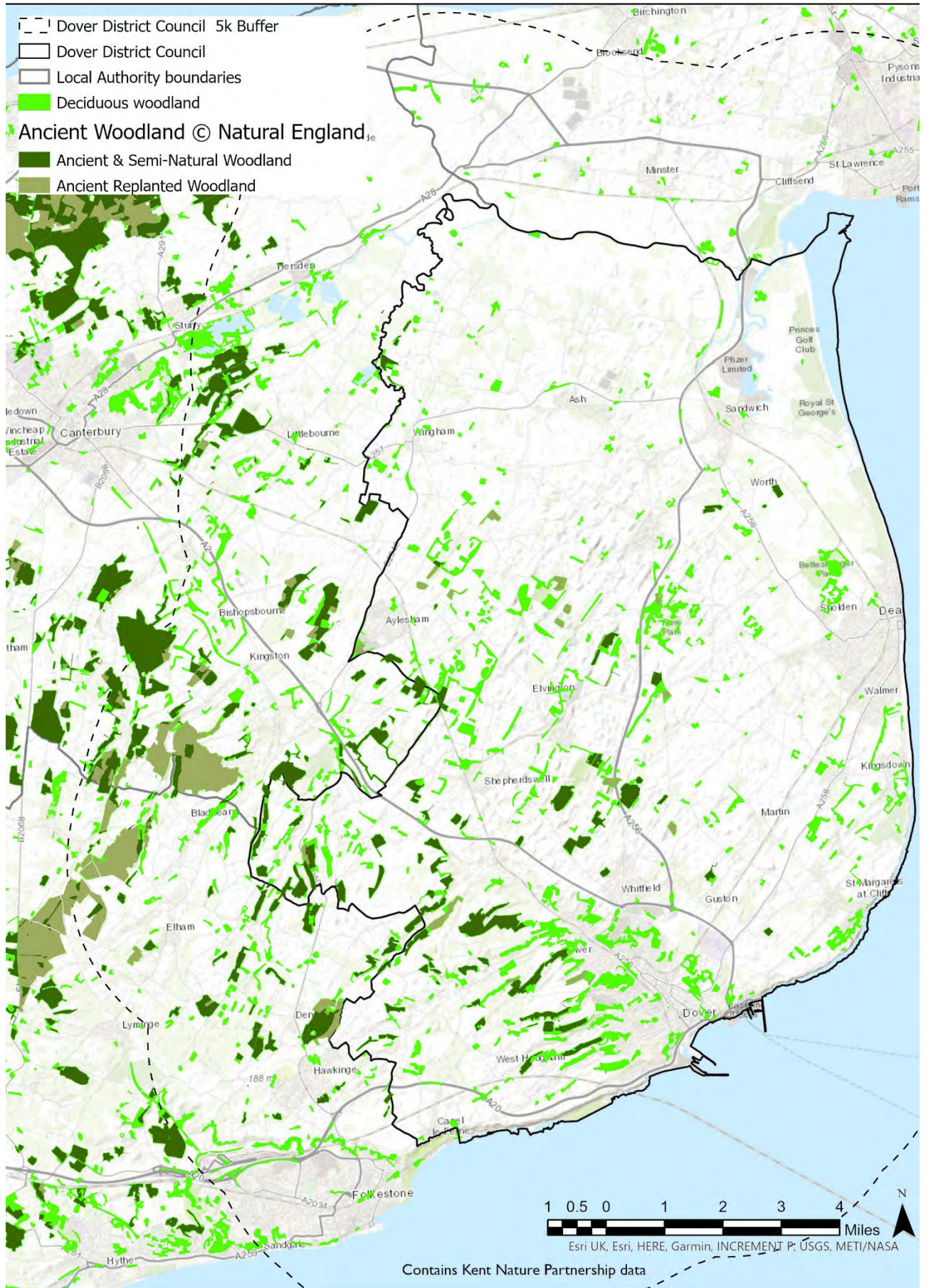


Plan 6: Priority Habitats (Natural England)





Plan 7: Woodland



## Kent Biodiversity Action Plan in Relation to Dover District

The Kent Biodiversity Action Plan (BAP) has selected 17 priority habitats and 13 priority species for which actions should be prioritised. Targets have been set for these habitats and species. The priority habitats and species from the Kent BAP for which actions can be included in this strategy are shown in Table 3. Several other species and habitats are listed in the Kent BAP.<sup>13</sup> These are not included in the previous table as there is either a low quantity/population in the district or this strategy is not the primary vehicle to deliver conservation action. However, it is important to protect all other Kent and national BAP priority habitats even where these are in small areas. Good conservation management and landscape-scale conservation actions can also support many of the Kent BAP species and habitats.

*Table 3: Kent BAP Priority Habitats and Species*

Kent BAP Priority Habitat or Species	Kent Biodiversity Strategy Target	Status and Priorities for Dover
<p><b>Lowland mixed broadleaved woodland</b> Lowland mixed deciduous woodland can have a hugely biodiverse canopy layer and ground flora and is a robust habitat with respect to future climates.</p>	<p>To restore and create habitat. An increase of 16 hectares and restoration of 30 hectares across Kent with a broader ambition of 30% increase by 2025. Could be achieved through agri-environment schemes or net gain from development.</p>	<p>The Kent Habitat Survey records 2184 hectares of this habitat in Dover district. Many small woodlands across the rural parts of the district. Some are ancient woodland. Also some important ancient woodland along the valleys and hills to the west of Dover town. Most of the woodlands in the rural areas of the district are small and disconnected and many are not managed.</p>
<p><b>Chalk grassland</b> Kent supports around 5% of the UK's chalk grassland habitat with around 2000 ha in total; 1159 ha being of the highest quality and a further 770 ha being semi-improved chalk grassland.</p>	<p>730 ha creation; 770 ha enhancement and restoration of semi-improved chalk grassland.</p>	<p>Dover district has nearly one quarter of Kent's chalk grassland. The White Cliffs Countryside Partnership is one of only four projects in Kent targeting restoration of chalk grassland. Lack of management is an issue as well as urban edge pressures.</p>
<p><b>Hedgerows</b> From 1990 onwards the decrease in managed hedgerows in Kent has been predominantly through inappropriate management rather than actual hedgerow removal.</p>	<p>Restore 2250 km and plant 2250 km new species-rich hedgerow.</p>	<p>Hedges, shelter-belts and woodland shaws are present across the rural district. In some places hedges have been removed or have become degraded. There are opportunities for hedgerow restoration in keeping with the landscape character.</p>

<sup>13</sup> Habitats not listed in Table 3 which are Kent BAP priorities are lowland beech and yew woodland, lowland meadow, lowland dry acid grassland/lowland heathland, brownfield, traditional orchard, wet woodland, vegetated shingle intertidal mudflats and coastal saltmarsh. These habitats are present in the district in low quantities or are habitats for which action through this strategy is not appropriate (e.g. they are habitats which cannot be re-created). Kent BAP priority species not listed are shrill carder bee, nightingale, adder, health fritillary, dwarf or Kentish milkwort (this chalk grassland specialist was recorded in Dover district pre 2000. The species requires a short-grazed sward and Kent populations have been lost due to under-grazing), common blue, water vole, serotine bat, lady orchid, ponds, European eel, lapwing, sandwich tern (not in district).



Kent BAP Priority Habitat or Species	Kent Biodiversity Strategy Target	Status and Priorities for Dover
<b>Rivers</b>	Improve 105 km of waterways (15 km per year).	Rivers in Dover district are in overall moderate or poor status under the Water Framework Directive. See further in section on 'Water and the Coast'.
<b>Chalk streams</b> A globally rare habitat; there are only about 250 chalk streams in the world, about 160 of them are in England.		The River Dour flowing through Dover town and the North and South Streams are chalk rivers. There is scope for improvements to River Dour in particular, see section on 'Water and the Coast'.
<b>Coastal and floodplain grazing marsh</b>	Restore 2000 hectares.	The Lydden Valley is an important area for this habitat. The restoration being undertaken by the RSPB will help Kent to meet the target for this habitat. Wider improvements to the habitat in the area surrounding the RSPB would also improve the extent of this habitat.
<b>Turtle Dove</b> The Turtle Dove is the UK's fastest declining bird species and is threatened with global extinction (IUCN Red List of Endangered Species). Breeding populations have collapsed in recent decades and the decline is continuing. The latest UK Breeding Bird Survey data shows a 93% fall in breeding abundance between 1995 and 2014. The species is now included on the UK Red List of Conservation Concern.	To maintain the population of turtle doves in the 7 highest priority Turtle Dove Friendly Zones (TDFZs) by 2020 and for activity to have begun in the remaining 6 Turtle Dove Friendly Zones.	There are three of the South East's 13 TDFZs in Dover district. The RSPB is actively working with farmers in these areas. There is also scope to expand support from local communities to raise awareness of the importance of the district for these birds. The RSPB is reviewing this project at the time of this report.
<b>Swift</b> The 57% decrease in their breeding numbers in the UK between 1995 and 2016 has made swifts an amber-listed species.	To stop the decline of swifts by ensuring that every new house built in Kent contains one swift-box or nest-brick.	The need to ensure swifts are accommodated in both new development and existing housing was a high priority for stakeholders at the workshops held during the preparation of this strategy.
<b>Adonis blue</b> The National Status is Near Threatened. Butterfly Conservation's county priority for this butterfly is High, because Kent is home to 14% of the national population.	To retain Adonis blue on all known sites and locate more sites, to show an increase in the known distribution of 73 1km squares.	Adonis blue is present on some chalk grassland sites around Dover. With a quarter of Kent's chalk grassland in Dover district, more could be achieved for this species.

Kent BAP Priority Habitat or Species	Kent Biodiversity Strategy Target	Status and Priorities for Dover
<b>Hedgehog</b> The population now appears to be in dramatic decline, with at least a quarter of the population lost in the last decade.	Increase awareness (there is no formal monitoring).	Awareness of the decline and conservation of this species needs to be improved. Both farmers and domestic households can help to support the population of hedgehogs.

## Pressures, Change and Condition

### Pressures Affecting Habitats and Species in Kent

The Kent Nature Partnership<sup>14</sup> reports a range of pressures on land use and trends which, historically, have had a negative effect on the natural diversity of Kent. Some of these factors have included:

- Intensification of land management, including use of chemical fertilisers and pesticides in farming, ploughing up of semi-natural grasslands, loss of traditional orchards;
- Direct loss of habitats, for example through urbanisation and change to other land uses;
- Increase in pollutants, with the most widespread harm from excess nutrients (phosphate and compounds of nitrogen) in air and water;
- Lack of appropriate management, such as the loss of woodland management;
- Recreational overuse of sensitive areas;<sup>15</sup>
- Habitat fragmentation – species movement or migration is impaired and populations can become isolated, making them less able to survive or adapt to changing climate conditions;
- Invasive non-native species and pests and diseases;
- Climate change – loss of land through sea-level rise, changes in temperature, weather and other environmental factors altering habitat composition and species movement and survival (Kent is a gateway for species colonising from Europe in a response to climate change);
- Lack of investment and a drop in public sector expenditure on biodiversity, which in the UK, as a proportion of GDP, has fallen by 42% since a peak in 2008/9.

<sup>14</sup> Kent Nature Partnership. (2020 unpublished). *Kent Nature Partnership Biodiversity Strategy*.

<sup>15</sup> This is examined further in the section 'Recreation, Access and Active Travel'.



## Condition of Habitats in Dover District

Most of Dover district's SSSI units are in favourable or unfavourable recovering condition (see Plan 8). Exceptions are at:

- Alkham, Lydden and Swingfield Woods SSSI – unfavourable declining due to high levels of sycamore, one unit;
- Dover to Kingsdown Cliffs SSSI - unfavourable no change due to lack of grazing management, three units;
- Sandwich Bay to Hacklinge Marshes SSSI - unfavourable no change due to inappropriate ditch management (five units) and one unfavourable declining unit.

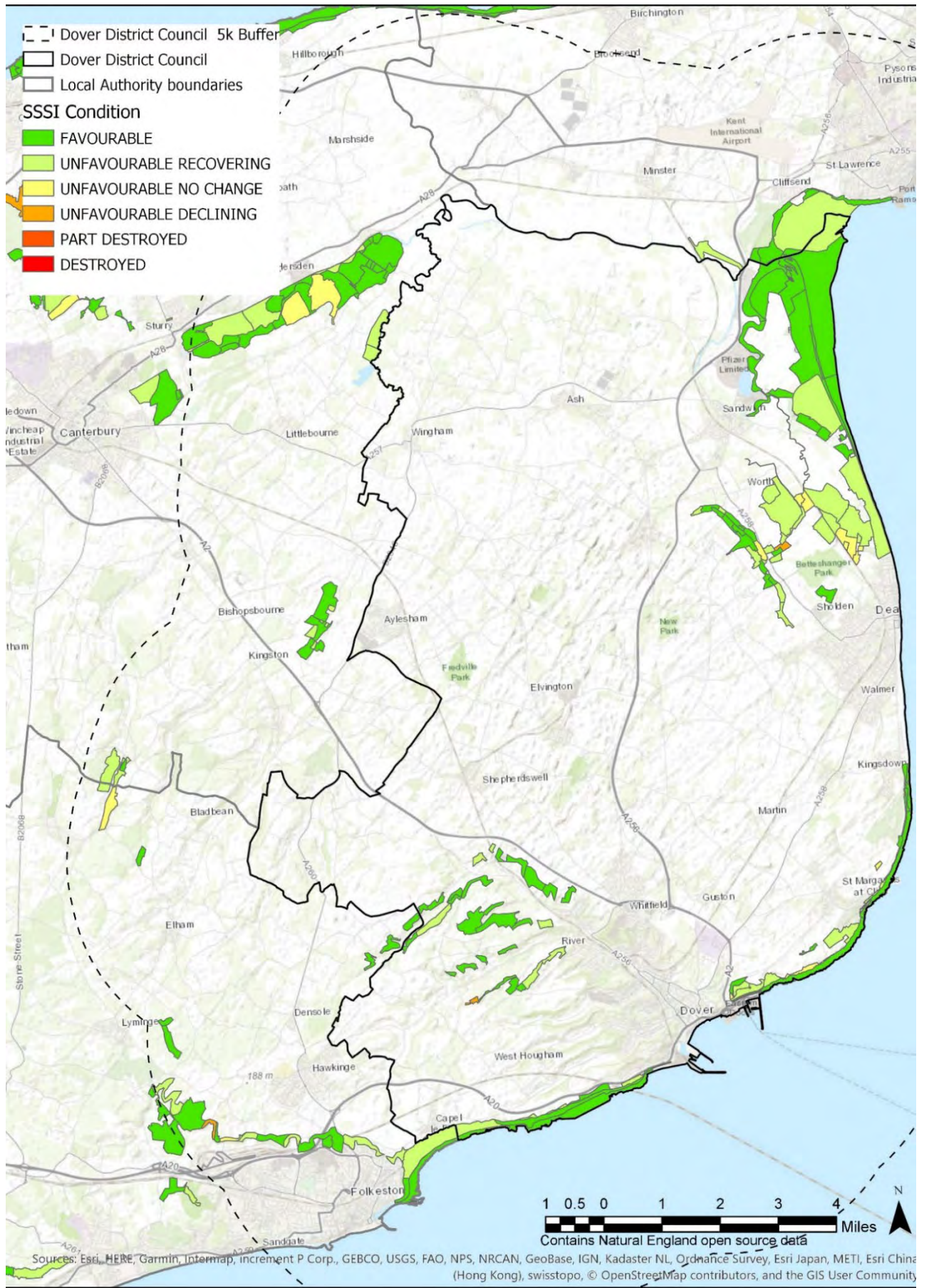
Stakeholders of the 'Up on the Downs' project also identified the following as risks for natural heritage:<sup>16</sup>

- Invasive species, pests and diseases (e.g. ash dieback);
- Fragmentation of habitats due to development and farming practices;
- Loss of habitat due to land use change;
- Economic viability of maintaining grazed landscapes;
- Lack of woodland management;
- Coastal erosion.

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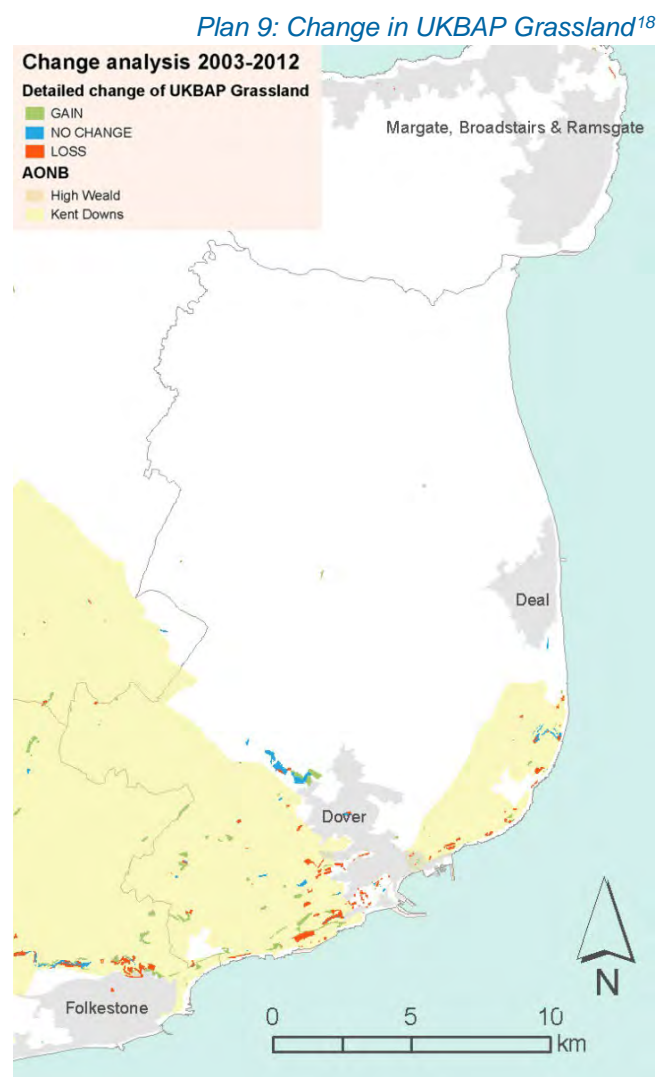
<sup>16</sup> Up on the Downs. (2017). *Taking the Next Step: A Prospectus for Continued Partnership Working*.

Plan 8: SSSI Condition 2019



The Kent Habitat Survey 2012 reveals changes in some habitats. These losses and gains reflect forces of change which are acting across Kent as a whole.<sup>17</sup> Some of these results are detailed below.

- Calcareous Grassland – While there may be gains due to restoration projects, losses occur due to lack of management. The greatest loss was to scrub or (eventually) woodland habitats, with some losses to less biodiverse neutral grassland or improved grassland. In Dover 34% of calcareous grassland is within a SSSIs designation. Landscape-scale projects have targeted bringing calcareous grassland back into management;<sup>19</sup>
- Neutral Grassland – This habitat includes both more species-rich Biodiversity Action Plan habitat and more rank, less biodiverse, unmanaged grassland. Whilst, overall, neutral grassland has increased in Kent, this headline masks localised declines as well as changes in habitat quality. Some increase has occurred due to lack of management or increase in nutrient status, resulting in the conversion of species-rich and specialised calcareous and acid grassland to more species-poor rank grassland. Losses have occurred due to conversion to improved grassland and crop, change to woodland (both through planting and lack of management) and loss to building and urban areas;
- Coastal and Floodplain Grazing Marsh – There have been some gains, as well as some losses in the Sandwich Bay area.



## Woodlands

Woodland in Kent has expanded, primarily at the expense of agricultural land (arable and improved grassland), but also because of transition from calcareous grassland, neutral grassland and heathland. Managed woodlands can support a much greater variety of wildlife than those left unmanaged, particularly where management such as coppicing has suddenly stopped. Managing a woodland should create a range of habitats and structural diversity. Lack of management can have

<sup>17</sup> ARCH Project. (2012). *Kent Habitat Survey*.

<sup>18</sup> ARCH Project. (2012). *Kent Habitat Survey: 6 - Change Analysis*. <http://www.archnature.eu/>.

<sup>19</sup> 1% within statutory designation, 48% within Local Wildlife Site and 51% with no designation at all. ARCH Project. (2012). *Kent Habitat Survey*.



a significant effect on the biodiversity of woodlands. The English Woodland Grant Scheme (EWGS) offered grants to bring woodlands into management or for new planting. The scheme closed in 2014, but those areas which had entered the scheme are shown in Plan 10. Only a small proportion of the woodland in Dover district is within the English Woodland grant scheme. Smaller and isolated woodlands, especially if owned by several different landowners, are less economically beneficial to manage, as they offer fewer 'economies of scale'.

Ash is an important tree in Dover district, both in woodlands and in hedgerows. East Kent was one of the first areas in the UK to experience widespread infection from Ash Dieback (*Hymenoscyphus fraxineus*). Many of the woodlands in Dover have a moderate to high proportion of ash, especially woodlands to the west of Dover in the Kent Downs AONB. There are serious biodiversity and landscape implications from the spread of this disease as trees succumb or are felled as a precautionary measure.





## Landscape-Scale Conservation

The independent review of England's wildlife sites and ecological network 'Making Space for Nature' concluded that biodiversity habitats do not currently represent a coherent and resilient ecological network capable of responding to the challenges of climate change and other pressures.

The greatest immediate threat to habitats is land use change, but alongside direct habitat loss are more subtle agents of habitat deterioration; lack of or inappropriate management, degradation due to adjacent land uses, fragmentation and insufficient connectivity to support populations of species.

Strategic planning for nature conservation at the landscape scale is required to manage these pressures and to restore ecological networks. What is needed is action to:

- Improve the quality of current sites by better habitat management;
- Increase the size of current wildlife sites;
- Enhance connections between, or join up, sites, either through Physical corridors or through 'stepping stones';
- Create new sites; and
- Reduce the pressures on wildlife by improving the wider environment, including through buffering<sup>20</sup> wildlife sites;
- Summarised as: 'More, bigger, better and joined.'

England's biodiversity strategy, 'Biodiversity 2020', responds to the Aichi Biodiversity targets of ensuring ecosystems are resilient by 2020, with the NPPF also setting out that in delivering sustainable development a net gain for biodiversity should be secured.

A national Nature Recovery Network (NRN) is a major commitment in the government's 25 Year Environment Plan. By bringing together partners, legislation and funding, the government aims to restore and enhance the natural environment. At a more local level, Local Nature Recovery Strategies are a new system of spatial strategies for nature which will identify the opportunities and priorities for enhancing biodiversity and supporting wider objectives such as mitigating or adapting to climate change in an area. Kent is currently developing a county Local Nature Recovery Strategy through the Kent Nature Partnership. Local Nature Recovery Strategies will guide delivery of biodiversity net gain and other nature recovery measures by helping developers and planning authorities avoid the most valuable existing habitat and focus habitat creation or improvement where it will achieve the best outcomes.

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<sup>20</sup> Seeking to implement sensitive management around these sites to help protect them and increase biodiversity.

Guidance and evidence from Natural England provides more detail on how to develop a 'Nature Network'.<sup>21</sup> This guidance sets out the importance of:

- Understanding the place where the network is to be improved – the landscape, cultural heritage, history and why a place is special, as well as the biodiversity and ecosystems;
- Creating a vision – and be clear about objectives;
- Involve people and the community;
- Creating core sites – to sustain wildlife populations through building core areas and improving high quality wildlife sites. The core network for Dover district is shown in Plan 19;
- Building resilience – restore ecosystems that reinstate nature processes and provide buffering from degradation;
- Embracing dynamism – ecosystems and landscapes are dynamic;
- Encouraging diversity – include a diverse physical structure and biological complexity;
- Thinking 'networks' – plan at multiple spatial scales and address multiple issues;
- Starting now but planning for the long-term;
- Monitoring progress.

Green infrastructure has an important role to play in supporting a landscape-scale or 'nature network' approach. Through securing multiple benefits, green and blue infrastructure offers opportunities to increase biodiversity value in a planned way to support the creation of such landscape scale networks. Green infrastructure also offers opportunities to bring nature into urban centres, not only making urban areas better for wildlife, but also allowing people to come into contact with nature.

## Biodiversity Opportunity Areas

Biodiversity Opportunity Areas (BOAs)<sup>22</sup> represent the Kent Biodiversity Strategy spatially. They indicate areas where the delivery of Kent Biodiversity Strategy targets should be focused to secure the maximum biodiversity benefits. They are also areas where the greatest gains can be made from habitat enhancement, restoration and recreation, as these areas offer the best opportunities for establishing large habitat areas and/or networks of wildlife habitats. There are three BOAs within Dover district (see Plan 11 and Table 4). All cross into neighbouring districts.

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<sup>21</sup> Natural England. (2020). *Nature Networks: Evidence Handbook*. Natural England Research Report NERR081 and *Nature Networks: A Summary for Practitioners*. Natural England Research Report NERR082.

<sup>22</sup> Due to be updated through the process of developing Kent's Local Nature Recovery Strategy. Previous version shown in Plan 11.

Plan 11: Biodiversity Opportunity Areas





Table 4: Biodiversity Opportunity Area Descriptions and Targets

Biodiversity Opportunity Area and Description	Biodiversity	Targets
<p><b>East Kent Woodlands and Downs</b> A complex of woodland and grassland habitats, including several nationally and locally important sites, which includes some large blocks of woodland of importance for threatened butterflies. Acid grassland and more heathy habitats occur on the gravel exposures. A small area is within Dover district around the village of Wootton.</p>	<ul style="list-style-type: none"> <li>• Fragmented woodland and chalk grassland, including nationally important sites for both habitats, and internationally important chalk grassland;</li> <li>• Important woodland, including wood pasture and beech and yew woodland, as well as much ancient woodland;</li> <li>• Key species include woodland butterflies including Duke of Burgundy, as well as black-veined moth, adder and lady orchid.</li> </ul>	<ul style="list-style-type: none"> <li>• Chalk grassland creation, restoration and enhancement;</li> <li>• Enhance or reinstate woodland management, restore plantation on ancient woodland sites to native woodland and reconnect fragmented woodland;</li> <li>• Creation of species-rich neutral grassland;</li> <li>• Creation of acid grassland.</li> </ul>
<p><b>Lower Stour Wetlands</b> This opportunity area contains some of Kent's most extensive water and wetland habitats, including Sandwich Bay and surrounding wetland habitats and around the Great Stour.</p>	<ul style="list-style-type: none"> <li>• Internationally important coastal habitats, dunes and grazing marsh, with cliff habitats supporting rare plant species;</li> <li>• Internationally important freshwater wetlands and reedbed associated with the tidal Great Stour plus chalk river habitat upstream, supporting key wetland species such as the shining ram's-horn snail <i>Segmentina nitida</i>;</li> <li>• Key species include breeding and wintering birds associated with wetland and intertidal habitats, nightingale and Cetti's warbler in scrub habitats and farmland birds include corn bunting, grey partridge and tree sparrow;</li> <li>• A very important area for water voles and important foraging areas for declining bat species.</li> </ul>	<ul style="list-style-type: none"> <li>• No net loss of coastal habitats, maintaining natural coastal processes where possible;</li> <li>• Restore or recreate intertidal habits, grazing marsh, fen and reedbed;</li> <li>• Enhance floodplain of the Great Stour and restore and enhance grazing marsh;</li> <li>• Pursue opportunities for a landscape-scale freshwater wetland complex, including fen, reedbed and grazing marsh;</li> <li>• Creation of acid grassland and heathland;</li> <li>• Enhance species-rich grassland;</li> <li>• At least 200ha of grazing marsh should be restored and enhanced 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;</li> <li>• Enhance or reinstate management of Local Wildlife Site woodlands.</li> </ul>



Biodiversity Opportunity Area and Description	Biodiversity	Targets
<p><b>Dover and Folkestone Cliffs and Downs</b>  This opportunity area includes a series of valleys around Dover and the scarp slope of the Kent Downs north of Dover, cliffs and cliff-top grassland, intertidal and subtidal chalk. It also includes the two Marine Conservation Zones.</p>	<ul style="list-style-type: none"> <li>Nationally important chalk grassland in dry valleys and on cliff tops;</li> <li>Coastal cliffs and slope including chalk cliff and soft cliffs, both with important, associated foreshore and marine habitats, including nationally and internationally important areas of subtidal and intertidal chalk;</li> <li><i>Sabellaria</i> reefs, both offshore and in some intertidal areas, which provide an important habitat for a wide range of species;</li> <li>Important woodlands on chalk and on ragstone;</li> <li>Some vegetated shingle, wet woodland and fen habitats;</li> <li>Key species include plants and invertebrates associated with chalk cliff and chalk grassland habitats, including adder, silver-spotted skipper, small blue, Adonis blue, wild cabbage, and ox-tongue broomrape. Brown hare is also an important species. White clawed crayfish is found in the area;</li> <li>Species associated with inshore waters include short-snouted seahorse and native oyster.</li> </ul>	<ul style="list-style-type: none"> <li>Conserve and enhance important cliff, intertidal and marine habitats, including allowing natural coastal processes and an action plan for monitoring the impact of non-native species of concern;</li> <li>Chalk grassland creation, restoration and enhancement;</li> <li>Enhance or reinstate woodland management and extend and reconnect fragmented woodlands where this would not conflict with grassland conservation and enhancement;</li> <li>Creation of species-rich neutral grassland.</li> </ul>

## Landscape-Scale Projects

There are several current and past projects in the district which are seeking to deliver landscape-scale conservation or adding to the understanding of needs.

### B-Lines

Wild bees and other pollinating insects are less abundant than they were in the 1950s. This is due to habitat loss, pests and diseases, extreme weather, competition from invasive species, climate change and the use of some pesticides.

The 10-year National Pollinator Strategy (2014) sets out to achieve the following outcomes to help support pollinators:

- More, bigger, better, joined-up, diverse and high-quality flower-rich habitats (including nesting places and shelter) supporting our pollinators across the country;
- Healthy bees and other pollinators which are more resilient to climate change and severe weather events;
- No further extinctions of known threatened pollinator species;
- Enhanced awareness across a wide range of businesses, other organisations and the public of the essential needs of pollinators;
- Evidence of actions taken to support pollinators.

It aims to achieve this through five key areas of importance to pollinators:

- Supporting pollinators on farmland;
- Supporting pollinators across towns, cities and the countryside;
- Enhancing the response to pest and disease risks;
- Raising awareness of what pollinators need to survive and thrive;
- Improving evidence on the status of pollinators and the service they provide.

Actions to make all types of greenspaces able to support more pollinators through increasing wildflowers, flowering shrubs and nectar sources, cutting grass less often and reducing the use of pesticides (see below).

### Bees Needs<sup>23</sup>

To help support pollinator populations, the charity Buglife has developed a series of 'B-Lines'. The B-Lines are a series of 'insect pathways' running through countryside and towns, along which we are restoring and creating a series of wildflower-rich habitat stepping stones. They link existing wildlife areas together, creating a network that will weave across the landscape. This will provide large areas of brand new habitat benefiting bees and butterflies— but also a host of other wildlife.

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<sup>23</sup> <https://www.buglife.org.uk/>

- 1 Grow more flowers, shrubs and trees that provide nectar and pollen as food for bees and other pollinators throughout the year. For example, pussy willow, primroses and crocuses in spring, lavenders, meadow cranesbill and ox-eye daisies in summer, ivy and hebes in autumn, and mahonia shrubs and cyclamen in winter.
- 2 Leave patches of land to grow wild with plants like stinging nettles and dandelions to provide other food sources (such as leaves for caterpillars) and breeding places for butterflies and moths.
- 3 Cut grass less often and ideally remove the cuttings to allow plants to flower.
- 4 Avoid disturbing or destroying nesting or hibernating insects, in places like grass margins, bare soil, hedgerows, trees, dead wood or walls.
- 5 Think carefully about whether to use pesticides especially where pollinators are active or nesting or where plants are in flower. Consider control methods appropriate to your situation and only use pesticides if absolutely necessary. Many people choose to avoid chemicals and adopt methods like physically removing pests or using barriers to deter them. If you choose to use a pesticide, always follow the label instructions.

The 'B-Line' in Dover district follows the entire length of the coastline, continuing to the north through Thanet and to the south west to Dover (see Plan 13). The B-Line passes through all the coastal towns, providing opportunities for enhancement of urban greenspaces, green and blue infrastructure and gardens.

### Kent Downs Landscape-scale Project (Nature Recovery Networks)

This Natural England project aims to secure land-use change at a sufficient scale to build local networks of wildlife-rich habitats. The project, now in its 18<sup>th</sup> year, has created networks of wildflower-rich grassland across five large areas covered mostly by arable and agriculturally improved, species-poor grassland. The project areas include 12 to 20 farms in an area of between 50 – 80 square kilometres. There are two project areas in Dover district:

- East Kent Valleys – this covers a 65 square kilometre stretch of downland encompassing the Alkham, Lydden, Warren, Denton and Rakeshole valleys to the west of Dover;
- East Kent Arable – this extensive area covers a large part of rural Dover district from Kingsdown and St Margaret's at Cliffe, through Aylesham, Eastry, Staple and Shepherdswell.

These project areas are shown in Plan 13.

Farms in the project areas enter into agri-environment schemes, adopting measures such as nectar plots, wild bird seed mixes, cultivated plots and field margins which are designed to provide a substitute for the diversity of pollen, nectar and seed sources available in unimproved meadows

and pastures. The creation of structurally diverse, herb-rich grasslands deliver these benefits in a more effective and sustainable way. Support is given to landowners.

### Turtle Dove Friendly Zones

The turtle dove is a Kent Biodiversity Action Plan priority species. It is the UK's fastest declining bird species and is threatened with global extinction (IUCN Red List of Endangered Species). Breeding populations, both in England and in Europe, have collapsed in recent decades and the decline is continuing. The latest UK Breeding Bird Survey data shows a 93% fall in breeding abundance between 1995 and 2014. The species is now included on the UK Red List of Conservation Concern.

The turtle dove occurs on arable and mixed farmland that offers suitable nesting habitat and is largely to southern and eastern England. A continuous supply of weed and crop seed is needed from late April until the end of August and a lack of seed food is probably the major factor limiting their breeding success. The presence of tall mature hedgerows, areas of scrub or woodland edges with a thick shrub layer for nesting are also beneficial. Most turtle doves nest in hedgerows or scrub over 4m tall.

The RSPB has used Breeding Bird Atlas data to identify 'Turtle Dove Friendly Zones' (TDFZs) and works with Natural England and local farmers to provide feeding habitat and supplementary feeding.

There are three TDFZs in Dover district (out of a total of 13 TDFZs in the South East), shown in Plan 12.





## Making a Buzz for the Coastline

This project, which ended in early 2020, spanned 135 miles of Kent's coastline from Dartford to Deal. It focused on restoring and creating habitat for Kent's wild bees, especially the Shrill carder bee (*Bombus sylvarum*).

One of the primary aims of Making a Buzz for the Coast was to safeguard rare bee populations by creating and restoring habitat and linking isolated populations together through the creation of flower-rich 'stepping stones' and habitat along the coast. Habitat and bee surveys were an essential part of the project.

## Natural England National Priority Focus Areas

Natural England's have focus areas for each Area Team. The focus areas are typically where Natural England (NE) are targeting more than one delivery programme. These areas are the key opportunities for Natural England to integrate its delivery to achieve better outcomes and represent where Natural England is focusing more effort.

There are two Priority Focus Areas in Dover district:

- Thames to Thanet – follows the north Kent coast and the northern part of Dover district;
- Kent Downs – follows the Area of Outstanding Natural Beauty.

## Up on the Downs

This Heritage Lottery funded Landscape Partnership Scheme delivered projects between 2013 and 2017. It brought together several partners in Dover and Dover districts.<sup>24</sup>

It was a £2.5m scheme, and delivered projects with the following aims:

- Conserve, enhance and restore the natural and built heritage that gives the Up on the Downs Landscape Partnership Scheme area its unique sense of place;
- Increase community participation in local heritage to make its conservation more sustainable, including developing new audiences and involving hard-to-reach groups;
- Increase understanding about the importance of the landscape heritage and the role it plays in people's lives to make its conservation more viable;
- Increase the skills and knowledge of local communities and partners to help them to conserve and promote the landscape heritage and to provide a legacy to the scheme.



<sup>24</sup> Dover District Council, Shepway (now Folkestone and Hythe) District Council, Elham Valley Line Trust, Kent Downs AONB Unit, National Trust, Canterbury Archaeological Trust, Affinity Water, White Cliffs Countryside Partnership.



## Climate Change Vulnerability

Climate change over coming decades will bring a range of direct and indirect pressures on biodiversity. Many species and habitats are strongly influenced by temperature and rainfall and the interactions between these.

Natural England has developed a climate change vulnerability model to assess the vulnerability of priority habitats. The guiding principles developed by the UK Biodiversity Partnership for biodiversity adaptation action underpin the vulnerability model:

- Conserve existing biodiversity through conserving protected areas, high-quality habitats and the range and ecological variability of habitats and species;
- Reduce sources of harm;
- Develop ecologically resilient and varied landscapes through conserving and enhancing local variation within sites and habitats and making space for the natural development of rivers and coasts;
- Establish ecological networks through habitat protection, restoration and creation;
- Make decisions based on analysis of the causes of change and respond to changing conservation priorities;
- Integrate adaptation and mitigation measures into conservation management, planning and practice.

The model uses four measurements which, when combined, provide an overall assessment of vulnerability to climate change:

- Sensitivity to Change – classifies each priority habitat type as high, medium or low sensitivity to climate change impact based on scientific literature and expert judgement;
- Habitat Fragmentation – measures how isolated or aggregated areas of the same habitat are and how permeable the surrounding landscape is. Larger patches of habitat can support larger populations and are less susceptible to extremes; and better connections allow species to move in the landscape;
- Topographic Heterogeneity – incorporates variations in height and aspect, as less variation can increase vulnerability;
- Management and Condition – assesses habitat condition based on SSSI condition and consultation and current negative impacts which are not linked to climate change, as these can increase vulnerability.

The overall vulnerability mapping for all priority habitats is shown in Plan 13. As the model only includes priority habitats, those areas which are within Biodiversity Opportunity Areas or Local Wildlife Sites or other designations and which are not priority habitats are not shown in the mapping. Those habitats which have been assessed as having highly sensitive habitats with low adaptive capacity score more highly (3 is the maximum) and those habitats which have been assessed as having low sensitivity and high adaptive capacity are less vulnerable and score lower.

Plan 13: Priority Habitat Climate Change Vulnerability

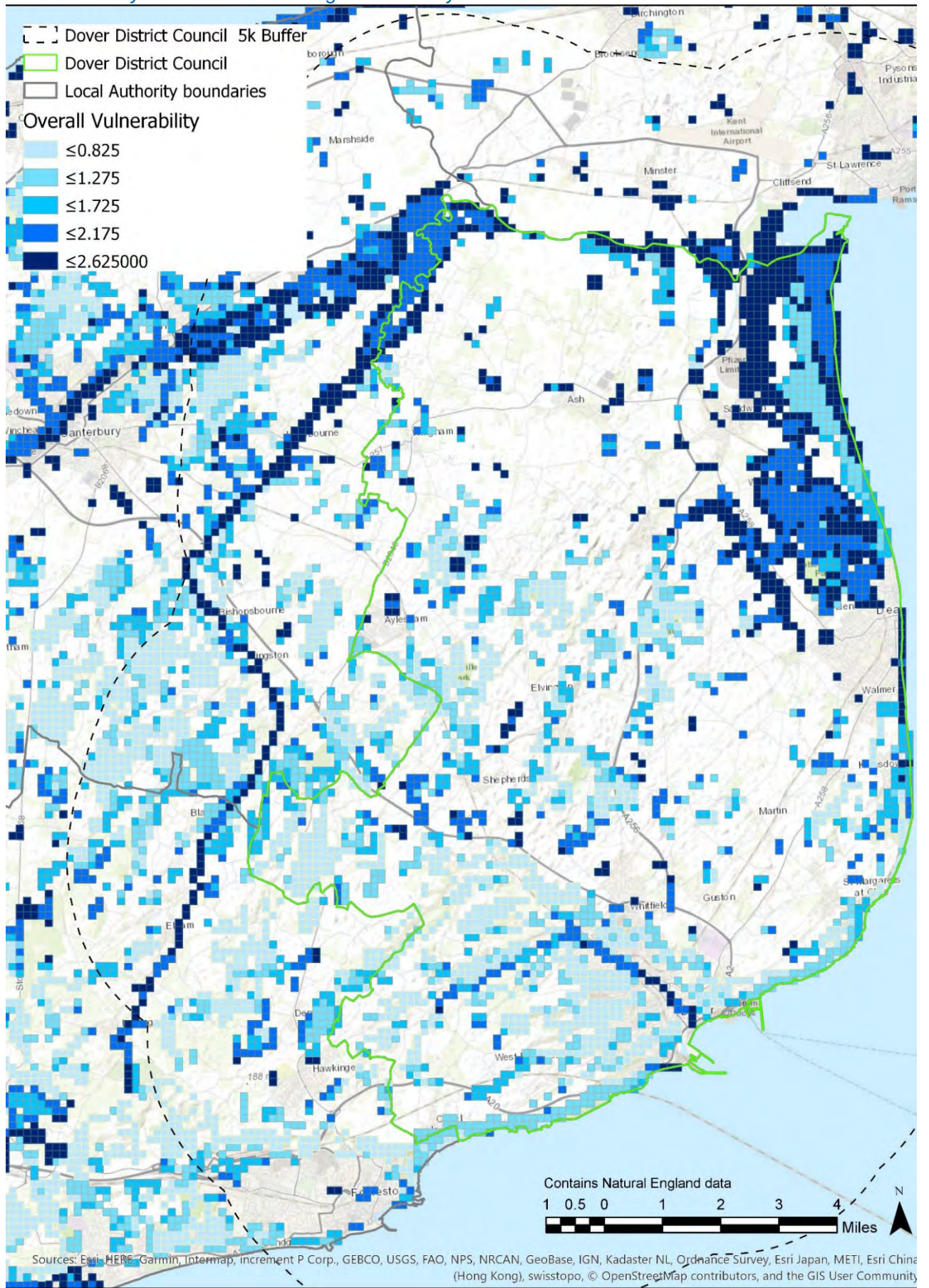




Table 6: Priority Habitat Climate Change Vulnerability – Summary

	Vulnerability	Area	Commentary
<b>Highly vulnerable</b>	Highly sensitive habitats with low adaptive capacity.	Sandwich Bay and Lydden Valley.	<ul style="list-style-type: none"> <li>Some areas score highly due to fragmentation of habitat);</li> <li>Rivers and river valleys are moderately sensitive habitats;</li> <li>Wetlands score highly due to sensitivity of habitat;</li> <li>Scores highly vulnerable for terrain;</li> <li>Doesn't meet management criteria (i.e. management not sufficiently in place to support adaptation to climate change).</li> </ul>
		Areas of fragmented habitat in rural areas.	<ul style="list-style-type: none"> <li>Scores highly due to fragmentation of habitat;</li> <li>Score highly vulnerable for terrain;</li> <li>Doesn't meet management criteria (i.e. management not sufficiently in place to support adaptation to climate change).</li> </ul>
<b>Moderately vulnerable</b>	Medium sensitivity and medium adaptive capacity or potentially low sensitivity but also low adaptive capacity.	River Dour	<ul style="list-style-type: none"> <li>Wetlands score highly due to sensitivity of habitat;</li> <li>Doesn't meet management criteria (i.e. management not sufficiently in place to support adaptation to climate change).</li> </ul>

## Core Biodiversity Network and Improvement Areas

The BOAs form the basis of the strategic biodiversity network. As previously outlined, these are areas where the delivery of Kent Biodiversity Strategy targets should be focused to secure the maximum biodiversity benefits and where the greatest gains can be made from habitat enhancement, restoration and re-creation, as these areas offer the best opportunities for establishing large habitat areas and/or networks of wildlife habitats. The core biodiversity areas formed by national designated sites (SPA, SAC, Ramsar, SSSIs and NNRs) are shown in Plan 14 in the darkest colour. These sites are protected and should already be in positive conservation management. It is important to ensure these sites are in good condition and are managed for wildlife as these form the core areas for landscape-scale conservation.

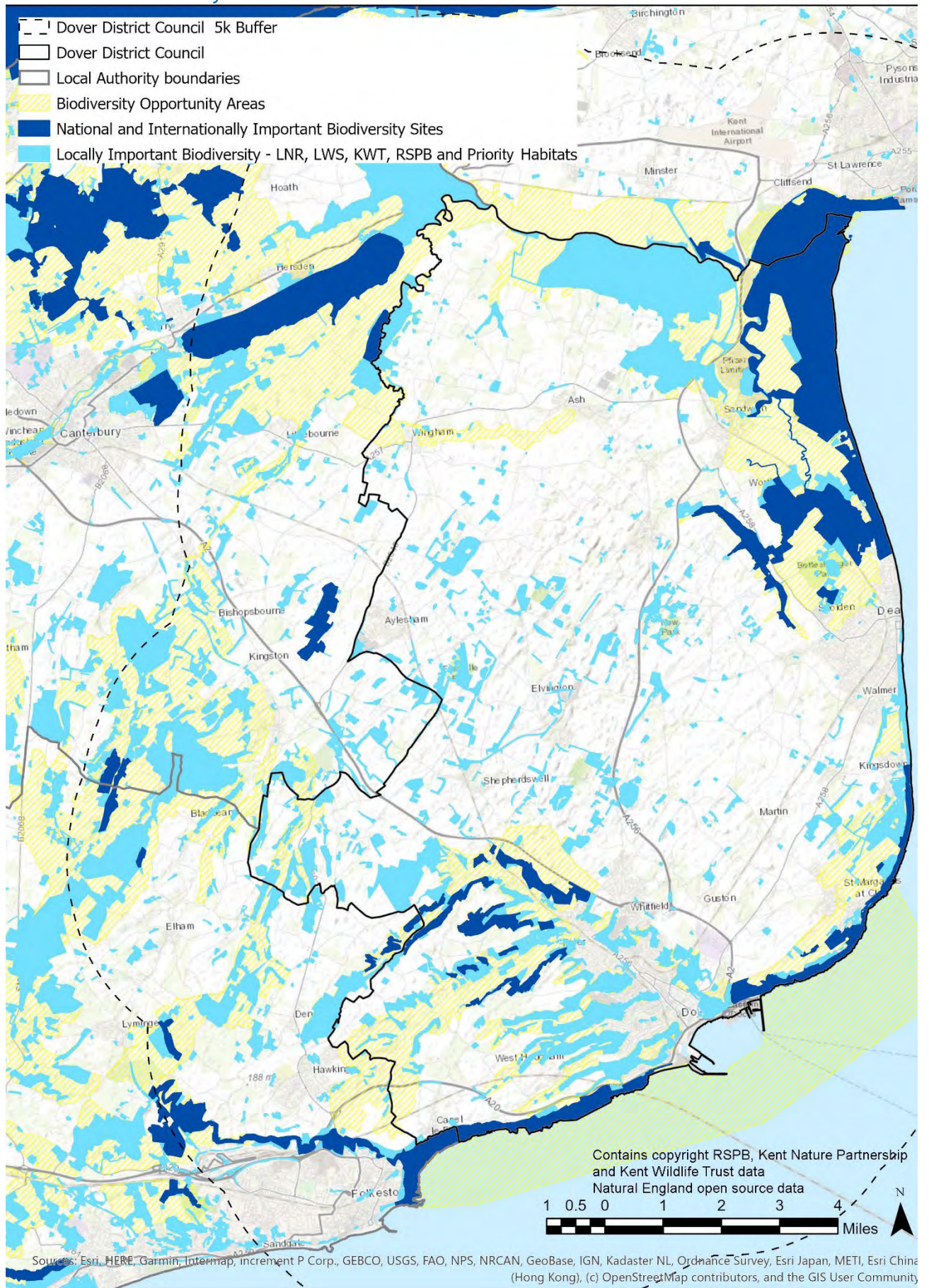
The 'second tier' of biodiversity areas are Local Nature Reserves, Natural England priority habitats and Local Wildlife Sites. Priority habitats and Local Wildlife Sites are important for biodiversity but do not have statutory protection. They may or may not be in positive nature conservation management. These areas should be brought into positive management and are areas for improving biodiversity and improving connectivity and for increasing the area of habitat.

The remaining areas of the BOAs have potential for new habitat creation and as important areas to link habitats.

It is also important, however, not to neglect the biodiversity outside the BOAs. The BOAs represent areas where the greatest gains can be made, but many of the most isolated and fragmented habitats are outside these areas. These include ancient and priority deciduous woodland in the central rural area of the district. The BOAs also do not cover large parts of the urban areas, where biodiversity sites can bring nature into contact with many people.



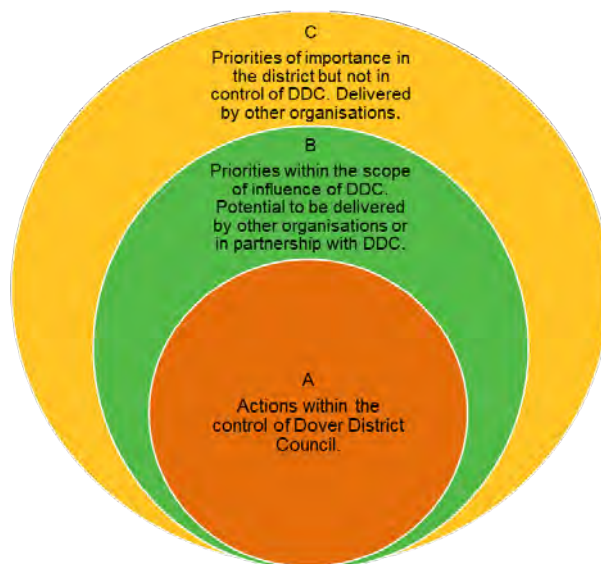
Plan 14: Core Biodiversity Areas





## Needs, Opportunities and Priorities

Below is a summary of the needs, opportunities and priorities for the biodiversity theme. As set out in the introduction to this strategy, this strategy identifies priorities and needs, not all of which are within the direct control of the council, or which can be delivered by the council alone. The White Cliffs Countryside Partnership offers opportunities to deliver many of these actions including working in partnership with other landowners and community engagement.



### Biodiversity Needs, Opportunities and Priorities

	Strategic Priority and Opportunities	Delivery
<b>1</b>	<b>Protect, enhance and improve the core biodiversity sites and take action for priority species</b>	
1.1	Protect and enhance the sites which form the core of the biodiversity network – those sites designated for nature conservation and those with known biodiversity value. These sites are owned by a wide range of landowners.	B
1.2	Ensure that Dover-owned sites with nature conservation value are protected and their value enhanced, bringing declining sites into good condition and reducing sources of harm.	A
1.3	Bring high priority chalk grassland sites around Dover town into positive management, taking a strategic approach, gaining further understanding of barriers both to management and to recreational use, monitoring the condition of these sites and continuing the legacy of the 'Up on the Downs' Landscape Partnership Scheme.	B
1.4	Protect, enhance and seek to expand areas of Kent Biodiversity Strategy priority habitats which are notable within Dover – including (but not exclusively) chalk grassland, chalk streams, coastal habitats and coastal and floodplain grazing marsh.	B
1.5	Protect and seek to increase populations of Kent Biodiversity Strategy priority species which are notable within Dover.	B
1.6	Deliver measures set out in the Thanet Coast and Sandwich Bay SPA SAMM (draft 2022) to ensure sustainable recreation in Sandwich Bay.	A
1.7	Monitor recreational impacts at other 'National Network' protected sites as identified in the Habitats Regulations Assessment 2021.	A
1.8	Continue Dover District Council input into the Pegwell and Sandwich Bay National Nature Reserve Steering Group.	A
<b>2</b>	<b>Create an ecologically resilient network to join habitats, allow species to move and to help nature adapt to climate change</b>	
2.1	Reduce sources of harm to existing biodiversity sites.	B



	<b>Strategic Priority and Opportunities</b>	<b>Delivery</b>
2.2	Develop ecologically resilient and varied landscapes through conserving and enhancing local variation within sites and habitats and making space for the natural development of rivers and coasts.	B
2.3	Establish ecological networks through habitat protection, restoration and creation.	B
2.4	Integrate climate change adaptation and mitigation measures into conservation management, planning and practice.	B
2.5	Work with partners to deliver a resilient network and with neighbouring authorities to develop connections over local authority boundaries. including mitigation measures for the Thanet Coast and Sandwich Bay SPA, the Sandwich and Pegwell Bay NNR Working Group, strategic wetland improvements around Ash Levels, Folkestone Warren, chalk grassland improvement to the west of Dover town and into Dover district, connectivity of woodlands and hedgerows across rural Dover district and into neighbouring authority areas.	A
2.6	Seek to create mosaics and overall abundance of wildlife alongside the protection of specific habitats and species.	B
2.7	Work with the Kent Nature Partnership to develop and deliver a Local Nature Recovery Strategy as part of the National Nature Recovery Network.	A
2.8	Ensure Dover District Council sustains a healthy tree stock and ensure no net loss of trees and manage existing woodland estate.	A
2.9	Create a more robust network across the rural district, including woodland creation, woodland management, hedgerows and shaws.	B
2.10	Develop a Dover Tree and Woodland Strategy to incorporate the district's response to climate change, and both urban and rural trees and woodland. Include an action plan to respond to ash dieback, addressing the impact on woodlands and landscape, and develop an approach to mitigate effects, following best practice.	A
2.11	Increase and improve management of wildflower verges.	B
2.12	Increase habitats for pollinator species, seeking opportunities on Dover Council owned land and working in partnership with communities.	B
<b>3</b>	<b>Link people and nature</b>	
3.1	Celebrate and raise awareness of Dover iconic species and habitats and the need to conserve them.	B
3.2	Get people involved in conservation activities and tree planting.	B
3.3	Support local people, parish and town councils and community organisations in taking community action for nature and greenspace.	B
3.4	Promote the action of residents to improve wildlife through gardening for wildlife, create hedgehog highways and install swift boxes.	B
3.5	Incorporate nature into Dover-owned parks and amenity spaces so that people can experience nature close to where they live and create stepping stones for wildlife, for example through permanent wildlife areas such as wildflower meadows, or through initiatives such as 'No Mow May'.	A
3.6	Designate more Local Nature Reserves to increase the hectare provision per 1,000 people with a more even distribution across the district.	A

	<b>Strategic Priority and Opportunities</b>	<b>Delivery</b>
3.7	Improve school grounds, including tree planting, growing spaces and wildflower gardens.	C
3.8	Seek larger and joint funding bids to progress biodiversity improvements at a larger scale.	B
<b>4</b>	<b>Adapt and mitigate for climate change impacts</b>	
4.1	Bring forward nature-based solutions as cost-effective, climate adapted and biodiversity-supporting alternatives to 'grey' engineering solutions.	B
4.2	Increase tree and woodland cover, ensuring that this follows the principles of 'right tree, right place'. Trees should be planted where this fits with the landscape character and should not be planted on sites with other biodiversity interest which would be lost through tree planting. Urban trees should be fitting for the size and location of space.	B
4.4	Identity habitat areas within Dover for protection as carbon sinks and wildlife habitats. This should include both terrestrial and marine habitats.	C
<b>5</b>	<b>Ensure development is sustainable</b>	
5.1	Seek 10% Biodiversity Net Gain through development, or more, subject to viability and soundness testing.	A
5.2	Incorporate biodiversity into housing developments, including hedgehog highways, swift boxes and biodiversity-friendly planting in streets and gardens.	A
5.3	Retain trees and woodland on development sites and improve links within and beyond the development.	A
5.4	Ensure developers look beyond red line in designing green infrastructure, linking into existing ecological networks and biodiversity opportunity areas to improve connectivity and climate change resilience;	A
5.5	Encourage biodiverse and native planting in new development and gardens.	A
5.6	Ensure that green and blue infrastructure is included in development, and that developers seek 'green' solutions and infrastructure as well as 'grey'.	A

# Blue Infrastructure and the Coast

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## Introduction

The water environment is essential in providing water to drink and for industry, as well as providing a host of biodiversity and amenity benefits. There is also good evidence that green and blue infrastructure can have an effective role in improving the water environment, providing improvements in water quality, quantity, biodiversity, flooding and amenity benefits.

Water quality can be affected by many sources. Agriculture can produce diffuse pollution, with the water industry spending many millions of pounds removing nitrates and pesticides to make water safe for drinking. Urban and highways runoff also carries a range of pollutants into watercourses and can contribute to surface water flooding due to expanses of impermeable surfaces.

In natural environments fluvial flooding occurs as a dynamic process between the river and its floodplain. Un-engineered rivers with vegetated channels can slow flows and channel water to natural floodplains outside urban areas. Restoring wetlands can also help to prevent diffuse pollution from entering surface waters and woodlands, in appropriate locations, can intercept rainwater, reduce peak run off and help reduce pollution. Green roofs can also reduce runoff and Sustainable Drainage Systems (SuDS) can both intercept flows and pollutants. The design of parks and gardens can reduce water demand for site maintenance.

Green infrastructure can also benefit groundwater quality and supply, through reducing pollutant loading reaching the aquifers and increasing recharge. A summary of green and blue infrastructure solutions for water resources management is shown in Table 5.

### **Links to Ecosystem Services**

Water is an essential component of ecosystem services and performs a supporting (the water cycle), regulating and provisioning role and, in some cases fulfils a cultural role as well. The National Ecosystem Assessment reports that the main long-term driver of changes in water quantity is human activity, alongside changes in climate which will vary precipitation patterns.<sup>25</sup>

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<sup>25</sup> National Ecosystem Assessment (2011), Chapter 13 Supporting Services.



Table 5: Potential Green and Blue Infrastructure Solutions for Water Resources Management<sup>26</sup>

Water Management Issue		Potential Green Infrastructure Solutions
Water supply regulation (incl. drought mitigation)		Re/afforestation and forest conservation * Reconnecting rivers to floodplains * Wetlands restoration/conservation/construction * Water harvesting * Greenspaces (bio-retention and infiltration) * Permeable pavements
Water quality regulation	Water purification	Re/afforestation and forest conservation * Riparian buffers * Reconnecting rivers to floodplains * Wetlands restoration/conservation * Constructing wetlands * Greenspaces (bio-retention and infiltration) * Permeable pavements
	Erosion control	Re/afforestation and forest conservation * Riparian buffers * Reconnecting rivers to floodplains * Removal of engineered banks
	Biological control	Re/afforestation and forest conservation * Riparian buffers * Reconnecting rivers to floodplains * Wetland restoration/conservation/construction
	Water temperature control	Re/afforestation and forest conservation * Riparian buffers * Reconnecting rivers to floodplains * Wetlands restoration/conservation * Constructing wetlands * Greenspaces (shading of waterways)
Moderation of extreme events (floods)	Riverine flood control	Re/afforestation and forest conservation * Riparian buffers * Reconnecting rivers to floodplains * Wetlands restoration/conservation * Constructing wetlands * Establishing flood bypasses * Removal of engineered banks
	Urban storm water runoff	Green roofs * Greenspaces (bio-retention and infiltration) * Water harvesting * Permeable pavements

<sup>26</sup> Source: UNEP (2014), Green Infrastructure Guide for Water Management

## River Catchments and Watercourses

Dover district falls within the South East River Basin District, within the Stour Management Catchment. Watercourses and flood zone 3 are shown in Plan 15.

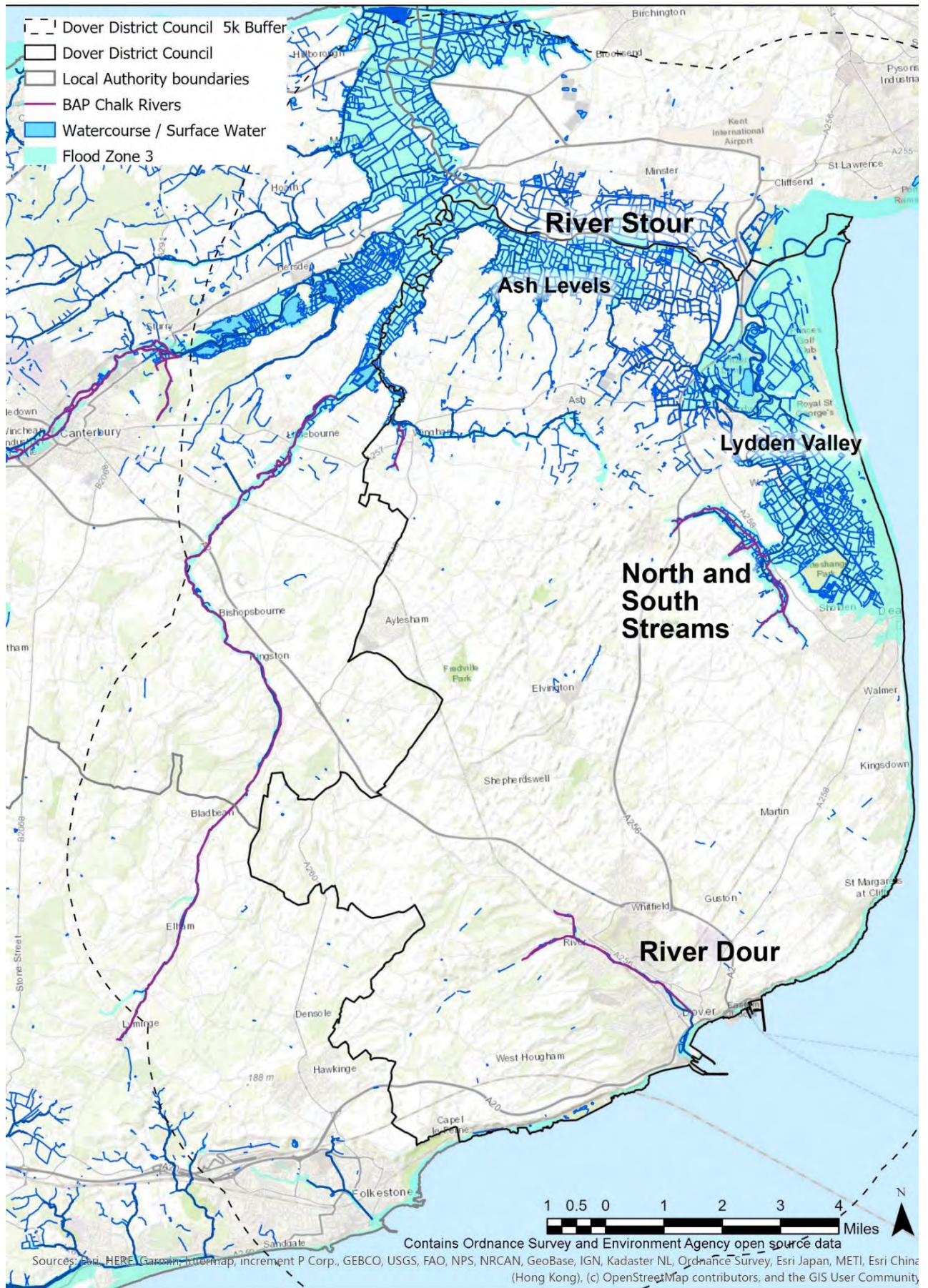
The River Dour is a short (4 km) chalk stream that rises in a rural setting north of Dover, but soon flows through the highly urban centre of Dover. Chalk streams are rare – 85% of the world's chalk streams are in England. They provide unique ecosystems. The river boasts a healthy brown trout population, but the habitat is highly degraded due to urbanisation and structures which fragment the course of the river, due to a legacy of watermills.

Part of the catchment of the Little Stour lies within Dover district. At the southern end of the catchment is part of the Nailbourne and Little Stour operational catchment. The Nailbourne is a 'winterbourne' (a watercourse which flows only every few years) which arises in Lyminge flows through the Elham Valley and becomes the Little Stour a just south of Littlebourne. The Little Stour is a tributary of the Great Stour, joining the larger river at Plucks Gutter. The Wingham River, a tributary of the Little Stour flows through Wingham, within Wingham and Little Stour operational catchment.

To the north of Wingham and Ash is the Ash Levels operational catchment. The catchment is an area of low-lying farmed land, criss-crossed with ditches, with streams such as the Richborough Stream, draining into the Great Stour.

To the east of the district are short waterbodies and their wider catchments. The South Stream flows from Eastry and the North Stream from Deal and Northbourne. The streams near Hacklinge, before flowing across the Lydden Valley. This is another low-lying farmed area, criss-crossed with drainage ditches. The whole area is a Site of Special Scientific Interest and part is also a Ramsar wetland of international importance. The sub-catchment is mainly rural, with agriculture the main activity, although coal mining was carried out in the past. As well as farming, the principal activity in the sub-catchment is recreation with three links golf courses.

Plan 15: Watercourses and Flood Zone 3





## Status and Issues

Giving an overview of the catchment, the Environment Agency states:

*“East Kent is one of the driest parts of the country. Groundwater supplies 80% of the area’s drinking water and also provides important base-flow to the river systems. The groundwater quality across the catchment is poor status under the Water Framework Directive. The link between water-use and the water available to support the natural environment cannot be over-stated.”<sup>27</sup>*

No waterbodies were good ecological status in 2022, see Plan 16.<sup>28</sup>

The priority issues for the catchment are:<sup>29</sup>

- Low fish populations due to structures obstructing fish migration, and siltation of gravel spawning grounds due to poor hydromorphological conditions;
- High phosphate levels resulting from point-source discharges from wastewater treatment works;
- Diffuse run-off from urban areas and agriculture, and low flows due to abstraction for public supply, commerce and agriculture.

### Catchment Sensitive Farming

The adoption of catchment sensitive farming will help water quality and quantity issues and is a priority for the Stour catchment.

The Catchment Sensitive Farming (CSF) initiative is a partnership between Defra, the Environment Agency and Natural England. It works with farmers and a range of other partners to improve water and air quality in high priority areas. There is a CSF priority area covering the Wingham and Little Stour waterbody catchment, but catchment sensitive farming is important for all parts of the Stour catchment, as well as the River Dour. Measures include silt management, winter storage to reduce summer abstraction, tackling diffuse pollution and buffer strips.

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<sup>27</sup> <http://environment.data.gov.uk/catchment-planning/ManagementCatchment/3087/Summary>

<sup>28</sup> The Water Framework Directive (WFD) (2000), under European Union legislation, introduced a comprehensive river basin management planning system to protect and improve the ecological health of the water environment. The WFD split the water environment into waterbodies: rivers, lakes, transitional (estuaries), coastal and groundwater. It set out quality objectives that waterbodies must reach to achieve ‘good’ status. To achieve ‘good’ status, both the ecological and chemical status must be ‘good’ in the case of surface waters and the chemical and quantitative status ‘good’ for ground waters. The data presented in Plan 16 pre-dates the United Kingdom’s exit from the European Union.

<sup>29</sup> Environment Agency (2016); Part 1: South East River Basin District – River Basin Management Plan.

Table 6: Issues Preventing Waterbodies from Reaching Good Status 2022<sup>30</sup>

Operational Catchment	Waterbodies	Ecological Status 2022	Reasons for not Achieving Good Status <sup>31</sup>					
			Issues preventing waters reaching good status	Pollution from rural areas	Physical modifications	Pollution from abandoned mines	Pollution from wastewater	Pollution from towns, cities and transport
River Dour	Upper Dour	Bad		✓✓✓✓ ✓✓✓			✓	✓✓✓
	Dour from Kearsney to Dover	Moderate						
North and South Streams	North and South Streams at Eastry	Moderate						
	North and South Streams at Northbourne	Moderate	✓✓✓✓	✓✓✓✓✓	✓✓✓	✓		
	North and South Streams in the Lydden Valley	Poor						
Stour Marshes	Ash Levels	Moderate	✓✓✓✓ ✓✓✓✓	✓✓✓✓ ✓✓✓		✓✓✓✓ ✓	✓✓	
Little Stour and Wingham	Wingham and Little Stour	Poor	✓✓✓✓ ✓	✓✓✓✓ ✓✓✓✓		✓✓✓✓ ✓✓✓✓ ✓✓	✓✓✓✓ ✓	✓✓✓✓ ✓✓

<sup>30</sup> Accessed 11 April 2022. <https://environment.data.gov.uk/catchment-planning/>

<sup>31</sup> ✓ indicates number of issues.

Plan 16: Ecological Status 2022

▭ Dover District Council

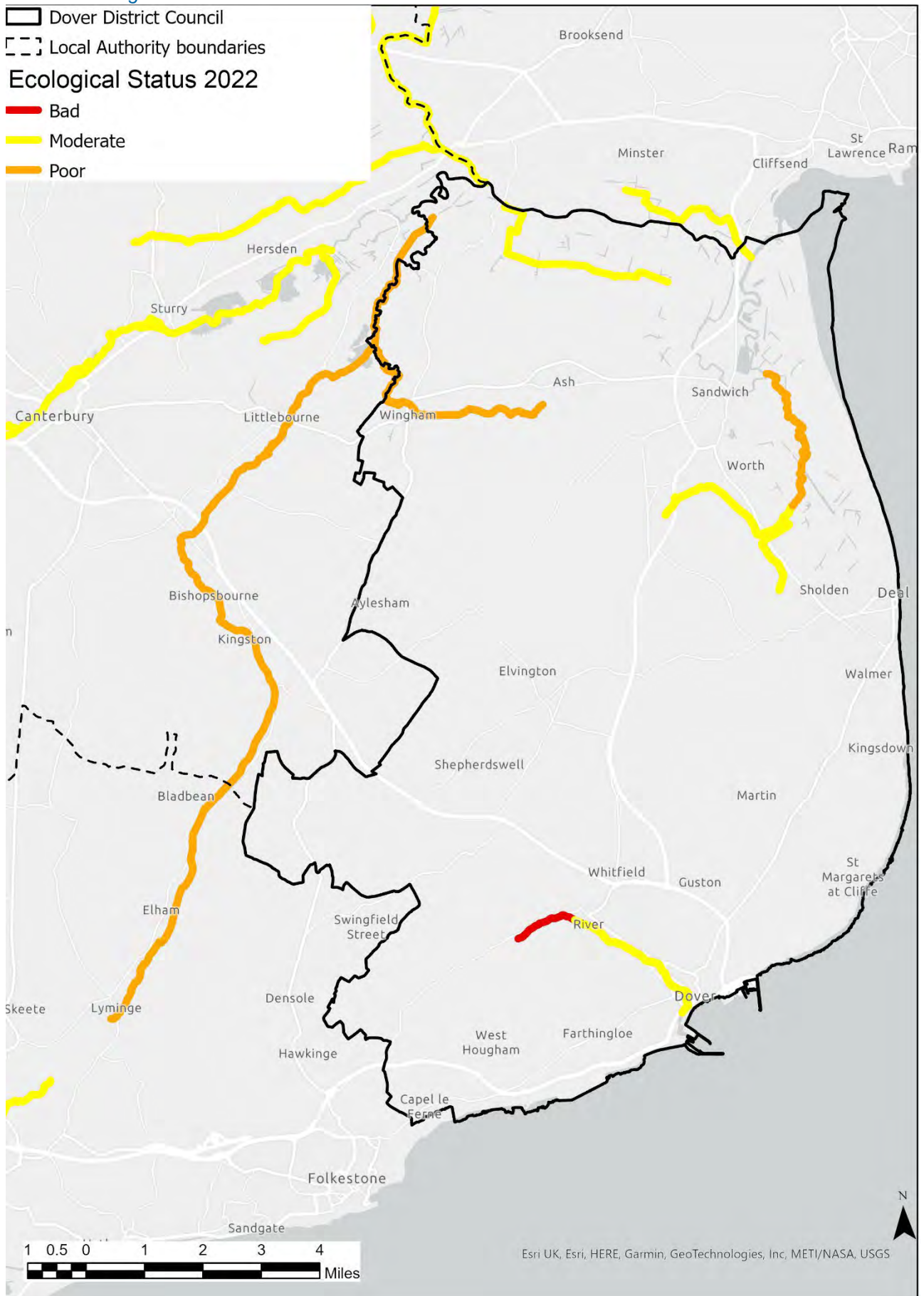
▭ Local Authority boundaries

Ecological Status 2022

▬ Bad

▬ Moderate

▬ Poor





## River Dour

The Dour is ephemeral in its upstream reaches. Most of the upper river has protected banks, mainly concrete. The relatively steep gradient of the river has led to the creation of several mill and weir structures. These mostly redundant structures now impede water, sediment and the migration of fish.

The historical management of the river has greatly influenced the current state of the river, resulting in a degraded river with an impoverished ecology. The suitability for fish has also been degraded in the past by abstraction resulting in low flows. The river's biodiversity is also reduced by the presence of non-native plant and animal species such as Himalayan Balsam and North American Signal Crayfish. The latter is a threat to the native White Clawed Crayfish.

This waterbody is also in failing status for phosphate. There are no public wastewater treatment works discharging to the waterbody so the elevated phosphate levels are likely to be resulting from diffuse sources – both urban and rural.

From Kearsney Abbey, where the river has been dammed to create a lake, the river passes through urban Dover. The river passes through several back gardens, creating riparian ownership issues. There are weirs which impede fish passage and the river has been straightened, culverted and has unnatural banks along much of its course through historic industrial use, such water mills. More recent roads and buildings have either been detrimental to the river or have not taken the opportunity to improve it. The structures and areas for habitat improvements are shown in Plan 17.

Priority actions for the River Dour relevant to this strategy are:<sup>32</sup>

- Implement Dour Management Plan;
- Address fish passage at weirs / mill structures;
- Replace artificial banks with natural ones (e.g. Buckland Mill);
- Habitat improvements;
- De-culverting as opportunities arise;
- Silt removal / management;
- Address urban run-off issues, including misconnections;
- Drive down domestic and commercial water use;
- Regular river clean-ups;
- Educate riparian owners;
- Angling education and enforcement;
- Catchment sensitive farming initiatives;
- Kearsney Abbey and Russell Gardens restoration;
- Eradicate non-native invasive species.

The emerging Local Plan contains a policy for the River Dour, Policy NE6. This policy states that development proposals that adjoin or affect the setting of the River Dour should protect the important ecosystem of this chalk stream and, wherever possible, actively enhance the natural functioning of the river, provide adequate natural buffers to protect against polluting runoff, create a connected and active river frontage, improve public access and enhance wildlife habitats and species. Proposals within the river corridor of the River Dour which do not have adverse impacts

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<sup>32</sup> East Kent Catchment Improvement Partnership. (2018). *Stour Catchment Plan and East Kent Catchment Improvement Partnership*. (October 2019). *East Kent Catchment Improvement Plan Summary*.

upon water quality, river flow, or riparian habitats and species will be supported. Development involving culverting will not be permitted. Improvements to the town centre have highlighted the importance of connectivity and improvements to the river, through the Mid Town development and Pencester Gardens.

## North and South Streams

The North and South Streams drain the Hacklinge Marshes through the Lydden Valley. The water is pumped at 'Roaring Gutter' into the Delf Stream which flows to Sandwich and into the North Stream. The Delf is a medieval man-made drainage channel. The Lydden Valley is a flat, low-lying area, of mainly grassland and rough grazing, criss-crossed with drainage ditches. The water flowing through the Lydden valley drainage system mostly derives from the springs that issue from the dry valleys that run down the dip slope of the chalk based North Downs. The system, however, is a network of drainage channels, which has been heavily modified over the centuries. The water has to be pumped at Hacklinge due to subsidence caused by mining.

Much of the area is a Site of Special Scientific Interest and a Ramsar wetland of international importance. The watercourses are managed both by the Environment Agency as main river and by the River Stour (Kent) Internal Drainage Board (IDB), as well as landowners. The area is a priority for the IDB as it holds much of the biodiversity interest of the IDB area.

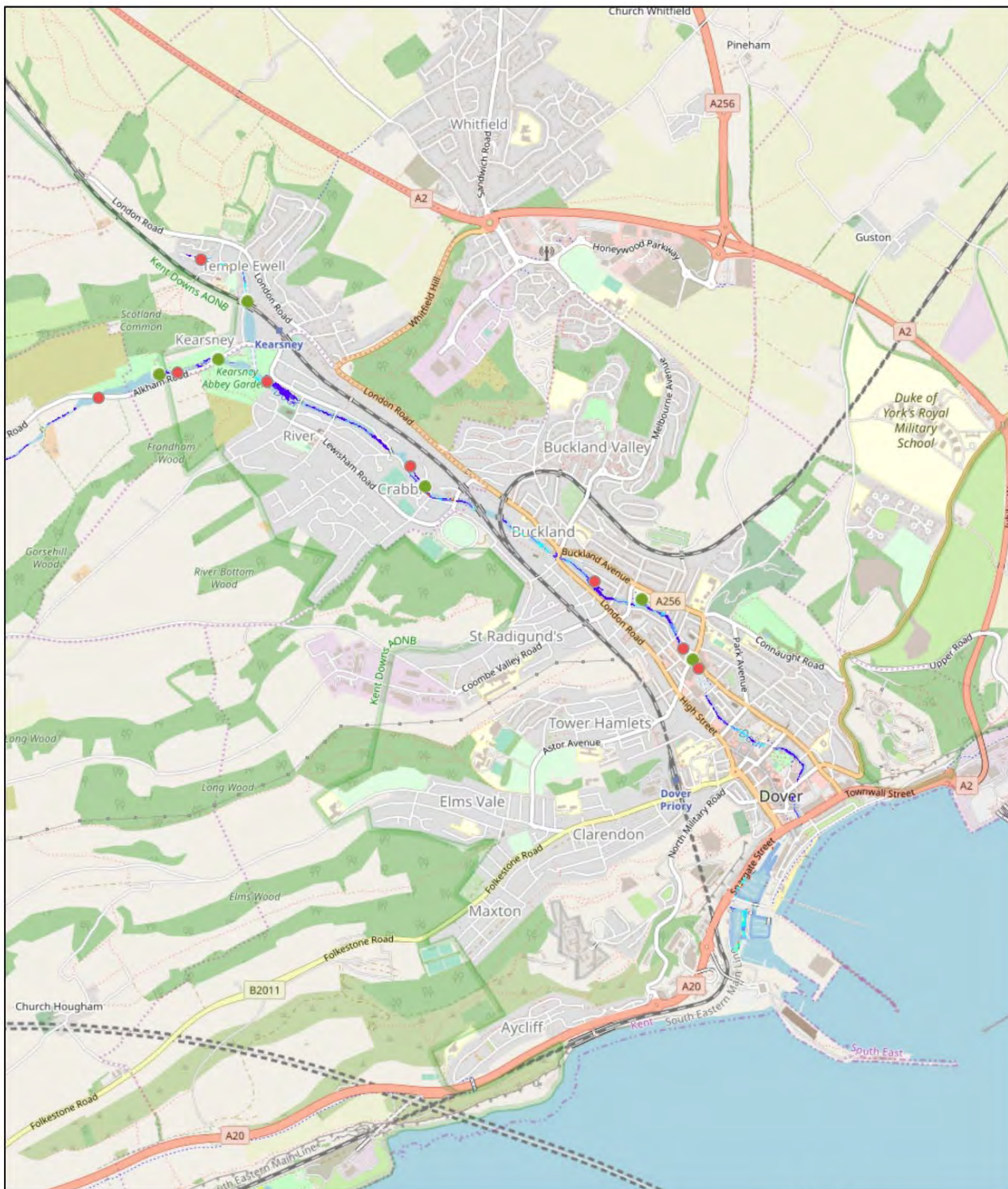
The North and South Streams catchment fails to achieve good status due to physical modifications, pollution from rural areas and pollution from abandoned mines. Priority actions for the North and South Streams relevant to this strategy are:<sup>33</sup>

- Fish passage at structures and pumping stations and fish habitat improvements;
- Oil storage pollution prevention campaign;
- Habitat creation and improvements;
- Restore the ecological diversity of ditches by sensitive management;
- Create ecologically rich wetland / marsh / grasslands – large scale wetland creation;
- Restore land patterns governed by historic sea defences and land drainage, noting the hierarchy of natural drainage channels and the subsequent man-made reclamation;
- Catchment Sensitive Farming, including winter storage to reduce summer abstraction and buffer strips;
- Reduce domestic and commercial water use;
- De-silt / silt control measures;
- Control / eradication of non-native invasive plant species;
- Manage abstractions at a sustainable level;
- Manage discharges from Betteshanger Sustainable Park.

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<sup>33</sup> East Kent Catchment Improvement Partnership. (2018). *Stour Catchment Plan and East Kent Catchment Improvement Partnership*. (October 2019). *East Kent Catchment Improvement Plan Summary*.

Plan 17: River Dour – Structures and Habitat Improvement



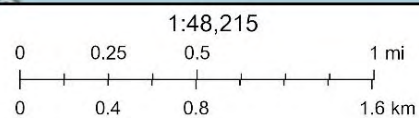
12/03/2020, 12:57:19

River obstructions

- WEIR

Environment Agency - Priority Habitat Creation and Restoration

- Restore habitat features



© OpenStreetMap (and) contributors, CC-BY-SA, Environment Agency 2014

Map data © OpenStreetMap contributors, CC-BY-SA | KWT | Environment Agency | Environment Agency 2014 | Web AppBuilder for ArcGIS



## Little Stour and River Wingham

Part of the waterbody catchment of Wingham and Little Stour is within Dover district with the Wingham River within the district. Priority actions for Wingham and Little Stour relevant to this strategy are:<sup>34</sup>

- Catchment Sensitive Farming – particularly silt management and winter storage to reduce summer abstraction;
- Remove / replace physical obstructions – farm bridges / culverts;
- Drive down domestic and commercial water use;
- River habitat improvements and sensitive river management.

The existence and extent of any hydrological connection between the Dambridge Wastewater Treatment Works in Wingham and the Stodmarsh Lakes system is being investigated in regard to water quality target failures in the Natura sites at Stodmarsh. A study was completed in July and November 2021. Further modelling is currently being carried out and the outputs reviewed by Natural England. The Council is also working in conjunction with other East Kent authorities, Kent County Council and government agencies to share information and look at solutions that both safeguard the Stodmarsh Nature Reserve and enable new development to come forward with East Kent. If it is determined that there a hydrological connection then further options will need to be pursued in regard to mitigating affected development within Dover district.

## Ash Levels

The Ash Levels are at the northern extent of Dover district. It is an area of low-lying marshland, reclaimed when the Wantsum channel became silted in medieval times. The watercourses are managed both by the Environment Agency as main river and by the River Stour (Kent) Internal Drainage Board (IDB), as well as landowners. The area is a priority for the IDB as it holds much of the biodiversity interest of the IDB area.

Priorities for the Ash Levels relevant to this strategy are:<sup>35</sup>

- Promote agri-environment schemes to reduce nutrients, such as buffer strips;
- Drive down domestic and commercial water use;
- Rationalise field accesses and boundaries to reduce culverts.

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<sup>34</sup> East Kent Catchment Improvement Partnership. (2018). *Stour Catchment Plan and East Kent Catchment Improvement Partnership*. (October 2019). *East Kent Catchment Improvement Plan Summary*.

<sup>35</sup> Ref. note 34.

## Groundwater Resources

There are two groundwater bodies in Dover district, see Plan 18. The East Kent Chalk – Stour groundwater body is the chalk aquifer under the Kent Downs and Lydden Valley and is a principal aquifer. The East Kent Tertiaries lies under the Ash Levels and is a secondary aquifer. The overall status of the two groundwater bodies in Dover was poor in 2016.

East Kent is one of the driest parts of the country. Groundwater supplies 80% of the area's drinking water. There is a strong link between water use, disposal and the quality of the wider aquatic environment. Groundwater also provides important base-flow to the river systems. The groundwater quality across the catchment is at poor status, but the water is treated so there is no risk to drinking water supply. Water-use is among the highest in the country and therefore measures to reduce water consumption are important.

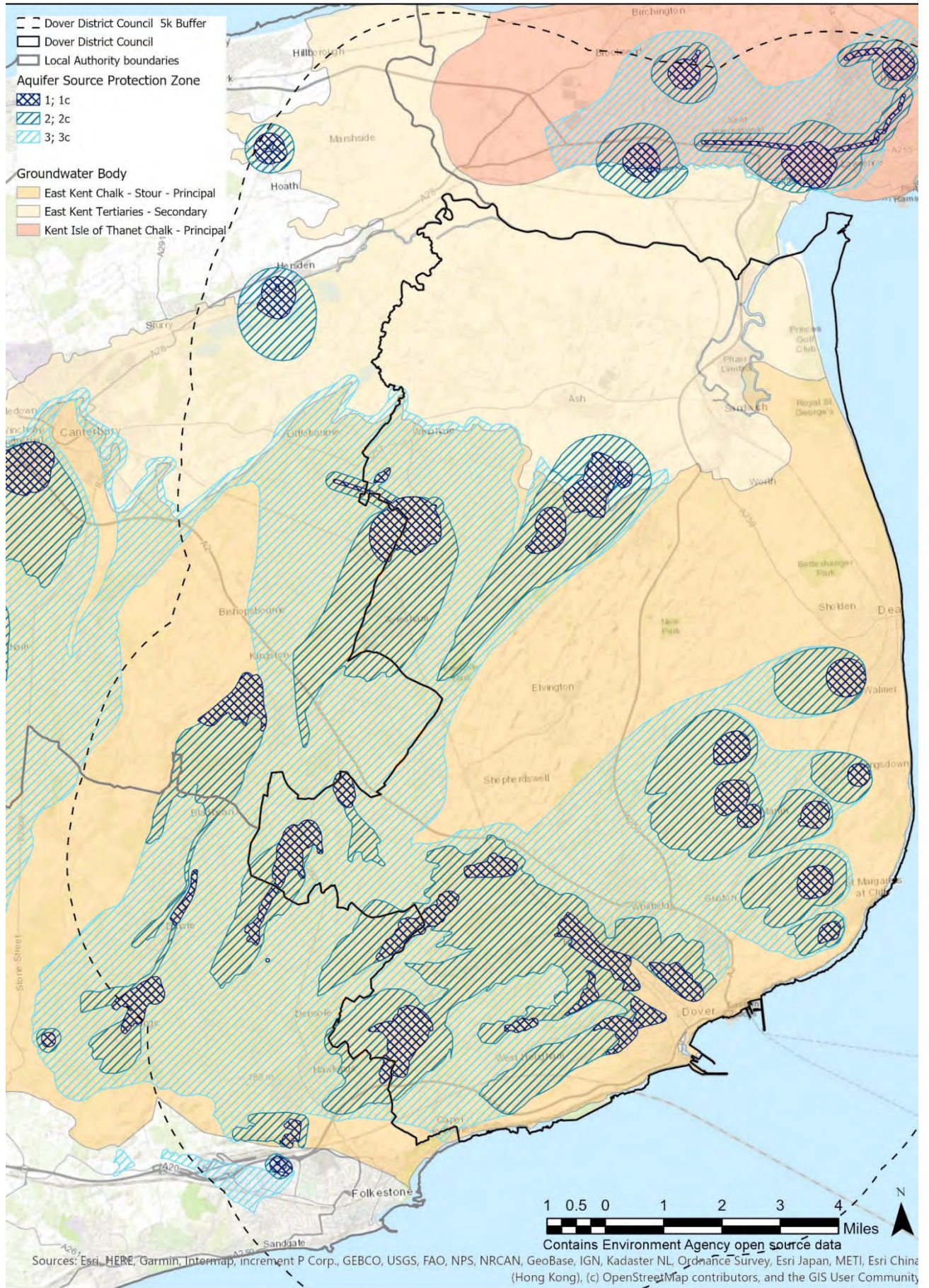
Plan 18 also shows groundwater source protection zones. These help to protect groundwater from pollution. They are divided into three zones as listed below:

- Inner zone (Zone 1) – the 50 day travel time from any point below the water table to the source. This zone has a minimum radius of 50 metres;
- Outer zone (Zone 2) – the 400 day travel time from a point below the water table.
- Total catchment (Zone 3) – the area around a source within which all groundwater recharge is presumed to be discharged at the source.

Significant areas of the chalk aquifer under Dover are covered by groundwater source protection zones including around Dover town.



Plan 18: Groundwater Bodies and Groundwater Source Protection Zones





# The Coast

## Dover District's Coastline

The coast and sea is integral to Dover district and the coast and sea is an essential part of the character of the district. Dover district contains exceptional coastal landscapes of national and international renown. There are 35km of coastline in the district. The White Cliffs of Dover are recognised around the world and form part of a coastal landscape of outstanding historical significance. In the north the creation and reclamation of the Wantsum Sea Channel and the formation of the Deal and Stonar spits has also shaped the area's landscape and history. Dover itself owes its existence to the River Dour which carved an opening in the formidable chalk cliffs providing a safe haven and harbour for vessels passing through and crossing the English Channel.

Being at the south-east tip of England brings a strategic significance to the district. At times of peace the district has been a gateway to Britain, acting as the main artery for trade, travel and migration. In times of war Dover district has been England's frontline with the Channel acting as an important defensive barrier and the White Cliffs being a national symbol of defiance. Defensive structures stretch along the coast, from the Roman fort of Richborough and including the twelfth century Dover Castle and the sixteenth century Deal, Walmer and Sandown castles.

During times of peace Dover was an essential conduit to the continent for ideas, goods and people. The largest settlements have grown up around the coast for fishing and for trade. Dover, Deal and Sandwich are very long established trading centres and ports.

In more modern times, the coast is highly valued for leisure, recreation and its nature and landscape.

## Beaches and Coastal Access

Beaches in Dover district provide a valuable recreation resource for both residents and visitors. There are several publicly accessible beaches in Dover district:

- Deal and Walmer beaches;
- Dover, Shakespeare Beach and Samphire Hoe;
- Kingsdown Beach;
- Sandwich Bay;
- St Margaret's Bay.

Samphire Hoe, west of Dover town within the Folkestone Warren SSSI, is a 35 hectare park which attracts around 110,000 visitors each year. It was created using 4.9 million cubic metres of chalk from the Channel Tunnel excavations. Samphire Hoe is owned by Eurotunnel PLC and managed in partnership with the White Cliffs Countryside Partnership.

The England Coastal Path, which opened in 2016, provides access along the entire coastline.<sup>36</sup>

### Protected Coastline

Much of the coastline of Dover district is designated for its nature conservation value, protected as Sites of Special Scientific Interest and as Special Area of Conservation and Special Protection Area. There are also two Marine Conservation Zones (MCZs) in Dover district and three lying further offshore.

There are also two sections of Heritage Coast, either side of Dover, designated due to their notable natural beauty and scientific significance. The Kent Downs Area of Outstanding Natural Beauty also includes the area of cliffs between Dover and Kingsdown.

More details on these designations are included in other sections of this report and are therefore not repeated here.

### South East Marine Plan 2021

The South East Inshore Marine Plan aims to enhance and protect the marine environment and achieve sustainable economic growth while respecting local communities both within and adjacent to the marine plan area. Public authorities must apply the South East Marine Plan to decisions they take and have regard to the Plan.

The policies within the plan are broad-ranging, encompassing the wide area of interest in inshore areas. Policies cover infrastructure, aggregates, aquaculture, cables, dredging, oil and gas, ports, harbours and shipping, renewables, heritage seascape and landscape, fisheries, employment, climate change. Carbon capture usage and storage, air and water quality, marine litter, access, tourism and recreation, social benefits, defence, marine protected areas, biodiversity, invasive and non-native species, disturbance, underwater noise, cumulative effects and cross-border co-operation.

#### *The Vision for the South East Marine Plan Area in 2041 (shortened)*

*The South East Marine Plan area is distinctive for being a substantial maritime gateway to the world with locally and nationally important ports that are thriving. Prosperous ports, together with associated industries and shipping sectors, are contributing to the long-term economic growth and prosperity of the UK and South East coastal communities. The tidal rivers in the South East have been optimised for short sea shipping [...].*

*The valuable cultural heritage, environmental assets and seascape of the densely populated areas of the South East are more appreciated and resilient than ever before, including to the impacts of climate change and coastal change. The important role that marine and estuarine environments and their biodiversity play in mitigating climate change is realised. A profitable, sustainable fisheries sector is thriving in the South East. Decisions made in the South East marine plan area apply an ecosystem approach and natural capital framework. The environment is in a better state than before, and Good Environmental Status is achieved. Biodiversity is conserved, enhanced and restored through applying well-established principles of biodiversity gain and delivery of a well-managed, ecologically coherent network of marine protected areas.*

*The South East Marine Plan promotes good governance and has solved challenges and conflicts in the crowded marine plan area through enabling plan-led decisions, taking account of cumulative effects and coordinating the co-existence of activities. Awareness of the marine plan and connectivity with the large number of consenting regimes and Local Planning authorities is high [...].*

<sup>36</sup> See next section on recreation and access for more detail on access in and around the coast.

# Coastal Change

## Introduction

The coastline of Dover district faces due east and southeast into the English Channel. Change along this coast has been and continues to be constant, both from natural and human-derived factors.

The English Channel has been subject to many periods of changing sea levels and bed exposure over the last 2 million years. Flooding of the Channel began as sea levels rose after the last glaciation, with the English Channel and Dover Straits completely flooded around 8,000 years ago. After this flooding, onshore sediment migration led to large areas of accumulation, forming shingle barriers, spits and bars. The Goodwin Sands, an offshore sand bank system is a remnant of a former tidal delta associated with tidal flows through the Dover Straits and southern North Sea. The Sands have been and continue to be an important large-scale control on the development of Sandwich and Pegwell Bays, supplying sand to the foreshore and protecting the shoreline against direct incident wave attack. However, along the coast there is now a much more limited addition of new sediments from cliff fall and shore platform lowering. As sea levels rise, it is likely that existing beach volumes will diminish.

The natural longshore drift of sediment was stopped when Dover harbour was constructed around 150 years ago. Prior to this there was a large shingle beach along the base of the cliff. The construction of Folkestone Harbour in the early 1800's had a similar impact. There has been considerable change, for example a reduction of beach at Oldstairs Bay (south of Kingsdown) by around 100m. Some accretion still takes place at Deal and Walmer, but the overall trend along most of Dover district's coastline is one of erosion. This includes spasmodic failure of the chalk cliffs. The rate of erosion is not consistent and varies due to geological formation and degree of wave exposure and precipitation levels.

## Shoreline Management Plan

A Shoreline Management Plan (SMP) provides a large-scale assessment of the risks associated with coastal evolution and presents a policy framework to address these risks to people and the developed, historic and natural environment in a sustainable manner. In doing so, an SMP is a high-level document that forms an important part of the Department for Environment, Food and Rural Affairs (Defra) strategy for flood and coastal defence.

Dover district is covered in two Shoreline Management Plans: Isle of Grain to South Foreland and South Foreland to Beachy Head.<sup>37</sup>

### Coastal Squeeze

The changing climate and associated sea level rise will also act upon the coast in many ways. As waters rise, some natural, geological and archaeological assets will be lost to the sea due to 'coastal squeeze'. Actions will need to be planned to relocate access routes and expand or relocate habitats which are affected. An on-going demand for beach replenishment, and increased pressure for hard sea defences, will have an impact on intertidal habitats through smothering and coastal squeeze and could change the character of the coastline.

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<sup>37</sup> South East Coastal Group. (2006). *South Foreland to Beachy Head SMP*; South East Coastal Group. (2008 rev. 2010). *Isle of Grain to South Foreland SMP Review 2010*. Halcrow Group Ltd for South East Coastal Group partners.



The shoreline management policies considered are those defined by the Defra (2006) report, they are:

- Hold the Line - By maintaining or changing the standard of protection;
- Advance the Line - By building new defences on the seaward side of the original defences;
- Managed Realignment - By allowing the shoreline to move backwards and forwards with management to control or limit movement; and,
- No Active Intervention - Where there is no investment in coastal defences or operations.

The preferred policies in the Shoreline Management Plans for the sections of Dover district's coastline are:

- South of the River Stour to Sandwich Bay Estate (north) – A largely undeveloped stretch of coast fronted by accreting sand dunes of international conservation importance and backed by internationally important habitats, nationally important golf links and the historic town of Sandwich. The hinterland is low-lying and forms part of the relict Wantsum channel flood risk area.  
Short-, medium- and long-term policy: No Active Intervention.
- Sandwich Bay Estate (north) to Sandown Castle (remains of) – A largely undeveloped stretch of coast that is fronted by a mixed (sand and shingle) beach and backed by low-lying land. Sandwich Bay Estate, a linear residential development, is set back from the current coastline. Flood inundation at this location has the potential to affect an extensive area by connecting the east Kent coast with the north Kent coast.  
Short-, medium- and long-term policy: Hold the line.
- Sandown Castle (remains of) to Oldstairs Bay – A largely low-lying frontage with extensive residential and commercial developments, together with important road and rail links. The frontage is backed by the Lydden Valley, which is of environmental importance.  
Short-, medium and long-term policy: Hold the line.
- Oldstairs Bay to St Margaret's Bay - A largely undefended section of chalk cliffs of high geological, landscape and environmental interest.  
Short-, medium- and long-term policy: No Active Intervention.
- St Margaret's Bay - The clifftop village of St Margaret's and built developments on the undercliff platform characterise this section of the coast. Amenities attributed to the village are of local importance.  
Short-, medium- and long-term policy: Hold the line.
- South Foreland - An undefended section of chalk cliffs of high geological, landscape and environmental interest. The cliff top is largely undeveloped, with the exception of the coastal footpath and the South Foreland lighthouse.  
Short-, medium- and long-term policy: No Active Intervention.
- South Foreland to Dover - An undefended section of chalk cliffs of high landscape and environmental interest. The cliff top is largely undeveloped, including the coastal footpath and South Foreland lighthouse.  
Short-, medium- and long-term policy: No Active Intervention.
- Dover - Dense urban area, with the coast dominated by the Port. The majority of this frontage is enclosed by the outer harbour breakwaters. Throughout the frontage developments extend to the cliff/shoreline edge.  
Short-, medium- and long-term policy: Hold the line.

- Shakespeare Cliffs - An undefended section of chalk cliffs of high landscape and environmental interest. The Dover to Folkestone railway line runs through the cliffs, and the village of Aycliff is set slightly back from the cliff top.  
Short-, medium- and long-term policy: No Active Intervention.
- Samphire Hoe - Platform created from the deposition of Eurotunnel spoil within a protective seawall. The site is now a significant recreational amenity as a Country Park and also includes critical infrastructure for the Eurotunnel, and the Dover to Folkestone railway line runs along the cliff toe at the back of the site.  
Short-, medium- and long-term policy: Hold the line.
- Abbots Cliff - An undefended section of chalk cliffs of high landscape and environmental interest. The Dover to Folkestone railway line runs through the cliffs. The cliff top is largely undeveloped, with the A20 set slightly inland.  
Short-, medium- and long-term policy: No Active Intervention.
- Folkestone Warren - Major landslide complex, of geological and ecological importance. The toe of the landslide is heavily defended as the Dover to Folkestone rail line runs across the lower part of the landslide. The village of Capel-le-Ferne lies close to cliff top.  
Short-, medium- and long-term policy: Hold the line.

### Coastal Change Management Areas (CCMA's)

These are areas which, as stated in the NPPF must be identified in Local Plans as likely to be affected by coastal change. These can only be areas where rates of shoreline change will be significant over the next 100 years, taking account of climate change. They do not need to be defined where the Shoreline Management Plan policy is to 'hold the line' or 'advance the line' for the whole period of the Local Plan.

The Review of Coastal Change Management Areas in Dover district, published in June 2018, defines a detailed set of CCMA maps for the Dover district and these are reflected on the council's policies map. Development within a CCMA must adhere to Local Plan Policy CC7.

The CCMA's in Dover district identified in the 2018 review are stretches are the cliff areas of the coastline, covering sections of the coast from Oldstairs Bay to St Margaret's Bay, South Foreland to Dover, Shakespeare Cliff, Abbots Cliff and Folkestone Warren.

## Flooding

There are many sources of flood risk in Dover district; from the sea, from rivers and watercourses, from surface water runoff and overland flow, from groundwater and from sewerage infrastructure. Flood zone three and the extent of the risk of flooding from surface water is shown in Plan 19.

The risk of flooding within the district is diverse. The northern and some eastern parts of the district are low-lying, including areas around the River Stour and the coast to Deal. In much of this area flood defences are in place, such as the Deal Coastal Defence Scheme. Around 15-20% of the district is accounted for in these low-lying areas. In the southern part of the district is the North Downs. Dover itself lies in the steep-sided Dour Valley.

### Sources of Flooding

#### Flooding from Rivers and Watercourses

- The **River Dour** rises in the Alkham Valley. River is fed by groundwater and from surface flow after prolonged or extreme rainfall. The Dour valley is steep sided and the channel is heavily urbanised along much of its length. This exacerbates issues when the water enters the town centre. Sustainable drainage systems in Dover town centre could help to relieve localised issues.
- The **River Stour** in the north of the district is both tidally influenced and fed by several watercourses. The area surrounding the river is marshland and is within the floodplain, and numerous drainage ditches deposit water into the river. The tidal influence on this river means that extreme tidal surges encroach upriver. Sea level rise due to climate change could therefore increase flooding risk;
- Around the **North and South Streams**, south of Sandwich, is another extensive area of wetland which is drained through ditches, many of them pumping out water. Occasionally the capacity of these pumps is exceeded following extreme rainfall or the failure of a pump.
- The risk of flooding from the **River Wingham**, which discharges to the River Stour, is mainly to rural areas in close proximity to the river.

#### Flooding from the Sea

Flooding from the sea can occur in two ways. The first is through a surge event, when an already high tide coincide with a low pressure weather event resulting in the surface of these becoming elevated. A wave overtopping event usually happens when larger, powerful waves collide with the shoreline, forcing sea water landwards. This can be exacerbated by strong onshore winds.

26km of the district's council has some formal sea defence, with the remaining length protected by chalk cliffs. The sea defences offer a good level of protection against flooding from the sea and are designed to protect against increases in water level. However, low-lying areas behind the defences could be flooded if the extreme sea level exceeded the crest of the defences.

The River Dour, although not tidal itself, is tidally influenced. The river can also become 'tide locked' at high tide when the outfall structure is submerged, meaning the water cannot flow into the sea. In extreme events this can cause the water to flow upstream.



The River Stour within Dover district is tidal, but in the event of a surge water levels are likely to be contained within the channel by the sea defences constructed as part of the Sandwich Town Tidal Defence Scheme.

### **Sandwich Town Tidal Defence Scheme**

The Sandwich Town Tidal Defence Scheme was completed in September 2015. The scheme provided a 1 in 200 standard of protection to both banks with 50 years of sea level rise included in the design. This protects 486 homes and 94 commercial properties in Sandwich. The scheme consisted of 14.4km of strengthening and improving the existing tidal river defences, and creation of a 240ha tidal flood relief area between Sandwich and the mouth of the River Stour. Part of this enabled the creation of new wetland habitats.

### **Flooding from the Land**

Flooding from surface water runoff typically happens following an extreme rainfall event when water flows over land and accumulates in depressions. This is exacerbated by steeply sloping ground, low permeability (e.g. urban surfaces) or where the surface water drainage system become overwhelmed.

In the north of the district surface water runoff is intercepted by drainage ditches. In the southern part of the district water infiltrates the chalk bedrock. However, surface water flooding occurs in the River Dour valley due to the steep sides and impermeable urban surfaces. Localised flooding also occurs in the centre of Deal. There are also areas at risk from surface water flooding in Deal. Infiltration into the ground is limited in Deal, but sustainable drainage systems in suitable locations could help to reduce peak flows into the combined sewers.

Plan 19 shows an indication of the areas at risk of flooding from surface water.

### **Flooding from Other Sources**

- Flooding from groundwater – typically occurs in areas with permeable geology. There is potential for groundwater flooding across the chalk downs where springs appear from the chalk aquifer. There is also in the low-lying land around the River Stour;
- Flooding from sewers – flooding from sewers occurs when the sewer system is overwhelmed by heavy rainfall, becomes blocked or has inadequate capacity. Foul water may then flood properties or exit via manholes, contaminating other flood water. Sewer flooding in Dover town and the Dour Valley is fairly common. Similar to Dover, the Deal sewerage infrastructure is mixed and relies on pump and a sea outfall.

The new Local Plan includes a policy to manage flood risk responsibly and sustainably and in accordance with the requirements of the Strategic Flood Risk Assessment for the District – Policy CC5 Flood Risk.



Plan 19: Risk of Flooding from Surface Water – Extent (from the Environment Agency)





## Sustainable Drainage Schemes (SuDS)

Sustainable Drainage Schemes (SuDS) can help to manage surface water flood risk. Natural features like swales, ponds, tree pits and rain gardens allow water to soak into the ground or be evaporated, reducing the need for traditional piped drainage. SuDS can also provide amenity value, reduce the impacts of climate change and create spaces for nature. Green infrastructure assets are important areas in which to implement or retrofit SuDS.

An increased frequency of intense rainfall events due to climate change, combined with a drainage network that quickly reaches capacity, will lead to more frequent flooding. Allowing surface water to bypass this network and discharge into greenspace helps to reduce the risk of flooding. SuDS are known to be more adaptable and flexible than traditional solutions, allowing future modification to cope with climate and other changes in urban areas.

Managing surface water in a sustainable manner, e.g. through of SuDS, can ensure that new development does not exacerbate flood risk on site or within the catchment. New development could incorporate SuDS integrated into green infrastructure. Management and maintenance plans for these, properly implemented, help to improve water quality by removing pollutants and putting clean water back into the environment. Plants and vegetation will help to provide essential wildlife habitats.

However, new development forms only a small part of the current urban areas. SuDS can also often be retrofitted into developed areas. Retrofitting SuDS can potentially help solve some of the flooding and water quality problems that may be faced in Dover district in the future. Such measures provide a more joined up approach to managing surface water across wider areas, supporting the water cycle as a whole, helping to green urban areas and generating multiple benefits in-line with an ecosystem services approach.

The new Local Plan includes a policy to incorporate SuDS where appropriate (Policy CC6 Surface Water Management).



## Working with Natural Processes

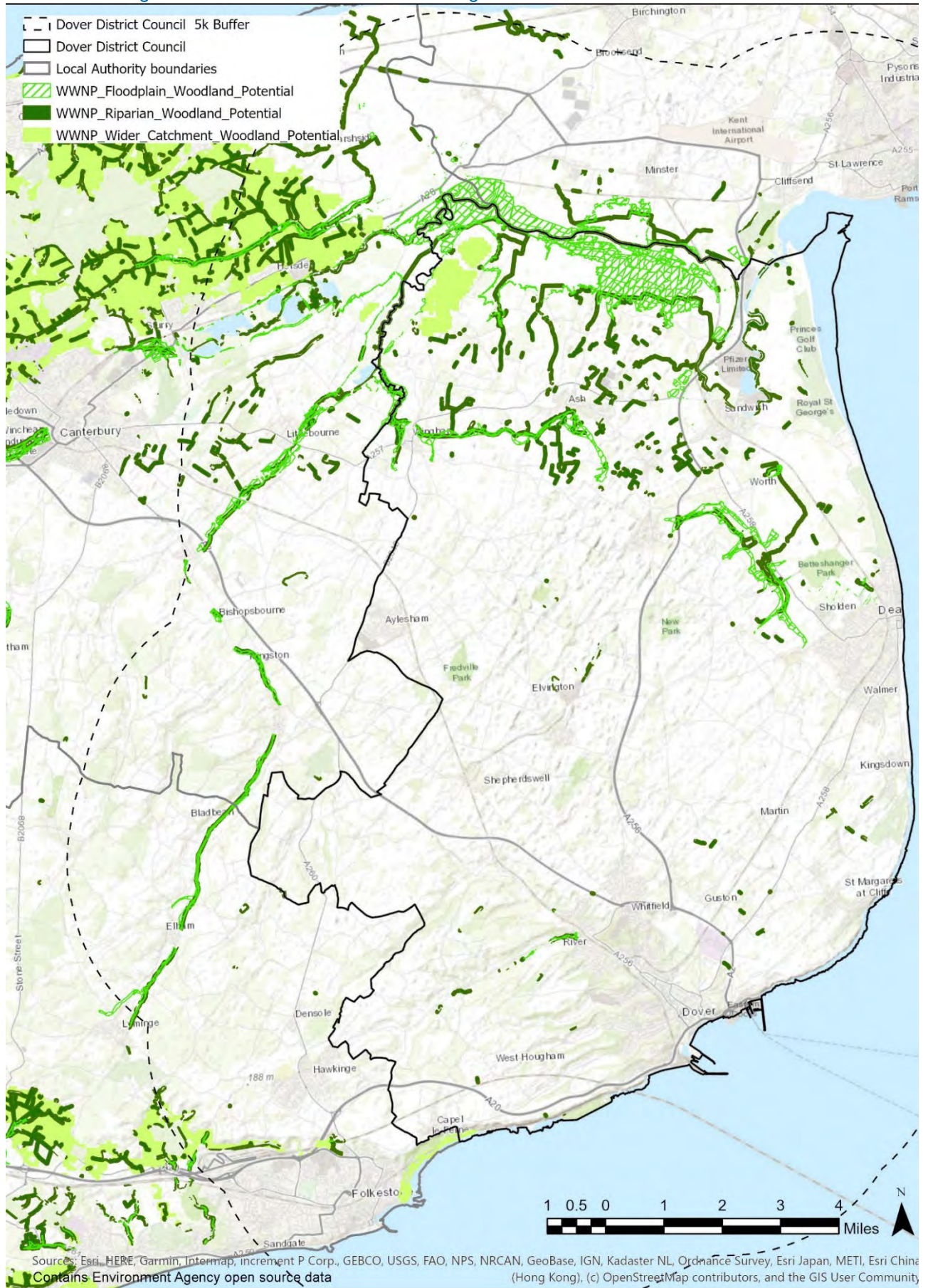
The Environment Agency has developed a range of mapped resources to support natural flood management. Working with Natural Processes (WWNP) aims to protect, restore and emulate the natural functions of catchments, floodplains, rivers and the coast. It takes many different forms and can be applied in urban and rural areas, and on rivers, estuaries and coasts. They provide indicative areas where natural flood management interventions may be useful, however, they need to be interpreted alongside other information to determine the most appropriate actions. The data is under development and will be further refined.

Catchment woodland can intercept, slow, store and filter water. This can help reduce flood peaks, flood flows (from 3% to 70%) and flood frequency. Plan 20 shows potential for tree planting, under three types:

- Riparian woodland – a 50m buffer of riparian land on smaller river networks. Riparian woodlands are planted on land immediately adjoining a watercourse, they can slow flood flows and can help reduce sediment delivery to the watercourse and reduce bankside erosion. They also have high evaporation losses and can create below ground water storage. Largest reductions in flood risk have been seen at the reach scale, in middle and upper catchments;
- Floodplain woodland – woodlands in floodplains can slow floodwaters and increase water depth on the floodplain. This can help reduce flood peaks (0-6%), delay peak timing (2 hours or more), desynchronise flood peak and reduce peak height. It can also enhance sediment deposition on the floodplain. Floodplain woodlands have greatest flood risk effect in the middle and lower river reaches of medium to large catchments;
- Wider catchment woodland – slowly permeable soils where woodland could break up naturally impermeable soils and reduce surface run-off. The data shows areas which are not already wooded.

The areas where tree planting may be most appropriate are in the north of Dover district, in the catchments for the River Stour and the associated marshes, plus the River Wingham. Riparian woodland may be appropriate along many smaller watercourses. Wider catchment woodland may be beneficial around Stourmouth. Floodplain woodland is indicated as potentially appropriate along the River Stour; however, tree planting here may be less appropriate due to other important biodiversity habitats and species. Floodplain woodland may also be beneficial around Ash and the River Wingham.

Plan 20: Working with Natural Processes - Tree Planting Potential



Other measures have also been examined which support water storage or improved connectivity of the floodplain, shown in Plan 21:

- River floodplain reconnection – restores the hydrological connectivity between the river and floodplain, which encourages more regular floodplain inundation and flood water storage. This can decrease the magnitude of the flood peak and reduce downstream flood depths especially for high frequency, low return period floods. The extent of this flood risk effect depends on the length of river restored relative to the overall size of the river catchment;
- Offline storage areas – these are areas of floodplain which have been adapted (with a containment bund, inlet, outlet and spillway) to store and then release flood waters in a controlled manner. They provide temporary flood storage which can reduce peak flow. The extent of their flood risk effect depends on the number of storage areas provided throughout a catchment and their total storage volume.

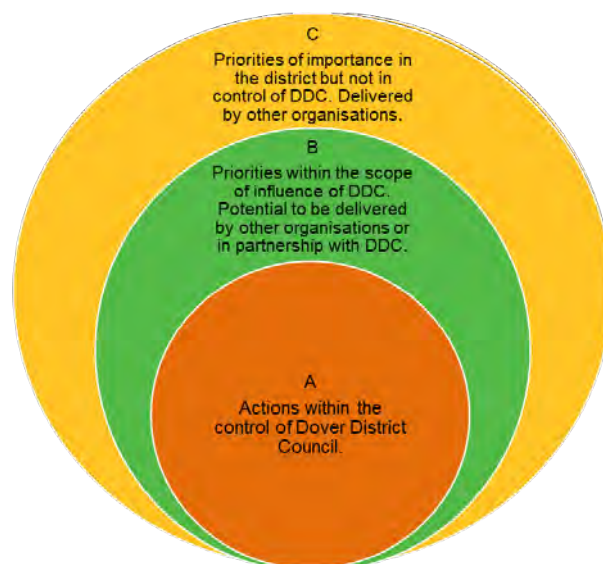
Offline storage areas are shown as potentially beneficial in the southern part of the district, in the catchment of the North and South Streams near Worth/Lydden and along the River Wingham. Some small areas are indicated as potentially benefitting from floodplain reconnection – along the River Wingham and areas around the North and South Streams and in the Lydden Valley.





## Needs, Opportunities and Priorities

Below is a summary of the needs, opportunities and priorities for the blue infrastructure and the coast theme. As set out in the introduction to this strategy, this strategy identifies priorities and needs, not all of which are within the direct control of the council, or which can be delivered by the council alone.



### Blue Infrastructure and the Coast Needs, Opportunities and Priorities

	Strategic Priority and Opportunities	Delivery
<b>1</b>	<b>Protect and enhance biodiversity of water and wetland habitats, including chalk streams, and protect the quality and quantity of water resources.</b>	
1.1	Produce an integrated plan for the River Dour to improve the river for biodiversity, access and flood management, and to engage the community. To incorporate: Address fish passage at weirs / mill structures; Replace artificial banks with natural ones (e.g. Buckland Mill); Habitat improvements; De-culverting as opportunities arise; Silt removal / management; Address urban run-off issues, including misconconnections; Drive down domestic and commercial water use; Regular river clean-ups; Educate riparian owners; Angling education and enforcement; Catchment sensitive farming initiatives; Kearsney Abbey and Russell Gardens restoration; Eradicate non-native invasive species. Continue community engagement to raise awareness of the river and its importance (e.g. continuing work of Our Finest Dour lottery funded project).	B
1.2	Ensure any new development alongside the River Dour enhances the river.	A
1.3	Enhancement of wetlands and wetland creation at Lydden Valley and Ash Levels.	B
1.4	Improve biodiversity of watercourses where they flow through greenspaces as a priority – e.g. Pencester Gardens and the Delf and Butts streams in Sandwich.	B
1.5	Develop projects which bring multiple benefits, e.g. potential for riparian woodland planting around Ash and the River Wingham, which could also link trees and woodland and provide additional habitats.	B
1.6	Ensure water recreation and biodiversity interest are balanced.	B
1.7	Raise awareness of the outstanding water, wetland, coastal and marine habitats of the district, both to residents and organisations, and promote ways in which everyone can help to conserve and protect them.	B
1.8	Achieve good status for watercourses. This includes a range of actions - improve fish passage, naturalise hard engineered riverbanks, reduce silt and enrichment from agriculture, improve highway runoff.	C



	Strategic Priority and Opportunities	Delivery
1.9	Ensure measures are taken to mitigate, where possible, against the impact of climate change on habitats, including coastal squeeze.	B
2	<b>Utilise green and blue infrastructure solutions to manage water flows, including incorporating SuDS into new development and retrofitting into existing green infrastructure where such an approach is appropriate to help address flooding issues.</b>	
2.1	Integrate SuDS into the design of new green infrastructure rather than a separate feature e.g. tree pits with water storage capacity and consider and include future maintenance of the system in the early stages of SuDS design. SuDS should be designed to support biodiversity and amenity uses.	B
2.2	Support efforts to tackle diffuse pollution from urban centres and industrial areas e.g. through the implementation of sustainable drainage systems (SuDS).	B
2.3	Incorporate SuDS into new development where appropriate and ensure maintenance.	A
2.4	Utilise existing greenspace to incorporate SuDS scheme where these can address a need to control flooding.	B
2.5	Install low water input planting in open spaces and parks and in new development (in both shared greenspaces and gardens).	B
2.6	Support partners in initiatives to reduce domestic and commercial water use.	C



# Recreation, Access and Active Travel

## Recreation and Access Provision

There are a total of 661km or 410 miles of public rights of way (PROW) in Dover district. There are 511km of public footpaths, 92km of public bridleways, 24km of restricted byways 24km and 34km of byways open to all traffic (see Plan 22). There are significantly fewer PROW in the urban centres.

There is a good provision of promoted routes, promoted by Kent County Council through 'Explore Kent',<sup>39</sup> spreading out to the countryside and the coast (see Plans 23 and 24 and Table 7). Longer distance walking routes include the National Trails – the North Downs Way and the England Coastal Path. These are high priority routes for maintenance and promotion. Other longer promoted routes include the cycling route 'Sandwich in Kent to Rye in East Sussex', and walking routes 'Coast to Cathedral - Dover to Canterbury', the Stour Valley Walk and the Saxon Shore Way. These provide many miles of promoted routes, with significant sections traffic-free. Dover has five shorter circular walks which provide good opportunities for residents and tourists to access the countryside and coast.

There are also many shorter walking, cycling and riding routes, promoted and maintained by others. Some of these can be found on the tourism website 'White Cliffs Country'.<sup>40</sup> Leaflets can be downloaded from the website, but detailed maps are not often provided. There are also walks promoted by Walking for Health (in conjunction with the Ramblers). These are generally walks led by volunteers and dates for meet-ups can also be found on their website.<sup>41</sup>

Although there are many opportunities for walking and cycling in Dover, there are opportunities for a more 'joined up' approach which makes it easier for users to find promoted routes.

Table 7: Promoted Routes in Dover District

Name	Type	Circular/ Linear	Length
Sandwich in Kent to Rye in East Sussex	Cycle	Linear	54 miles (87km)
Coast to Cathedral – Dover to Canterbury	Cycle	Circular	45 miles (72.4km)
North Downs Way	Walk	Linear	156 miles (251km)
Stour Valley Walk	Walk	Linear	51.5 miles (82.4km)
Saxon Shore Way	Walk	Linear	160 miles (257.5km)
Exploring the Saxon Shore Way (Sandwich)	Walk	Circular	5.3 miles (8.5km)
Exploring the Saxon Shore Way (St Margaret's Bay)	Walk	Circular	4.7 miles (7.5km)
Exploring the Saxon Shore Way (Grove Ferry)	Walk	Circular	6.1miles (9.7km)
Goodnestone	Walk	Circular	4.5 miles (7.2km)
Ride Kent - Alkham	Ride	Circular	8.5 miles (13.6km)

<sup>39</sup> <https://explorekent.org/>

<sup>40</sup> [www.whitecliffscountry.org.uk](http://www.whitecliffscountry.org.uk)

<sup>41</sup> <https://www.walkingforhealth.org.uk/walkfinder/east-kent-health-walks>



Plan 22: Public Rights of Way Network



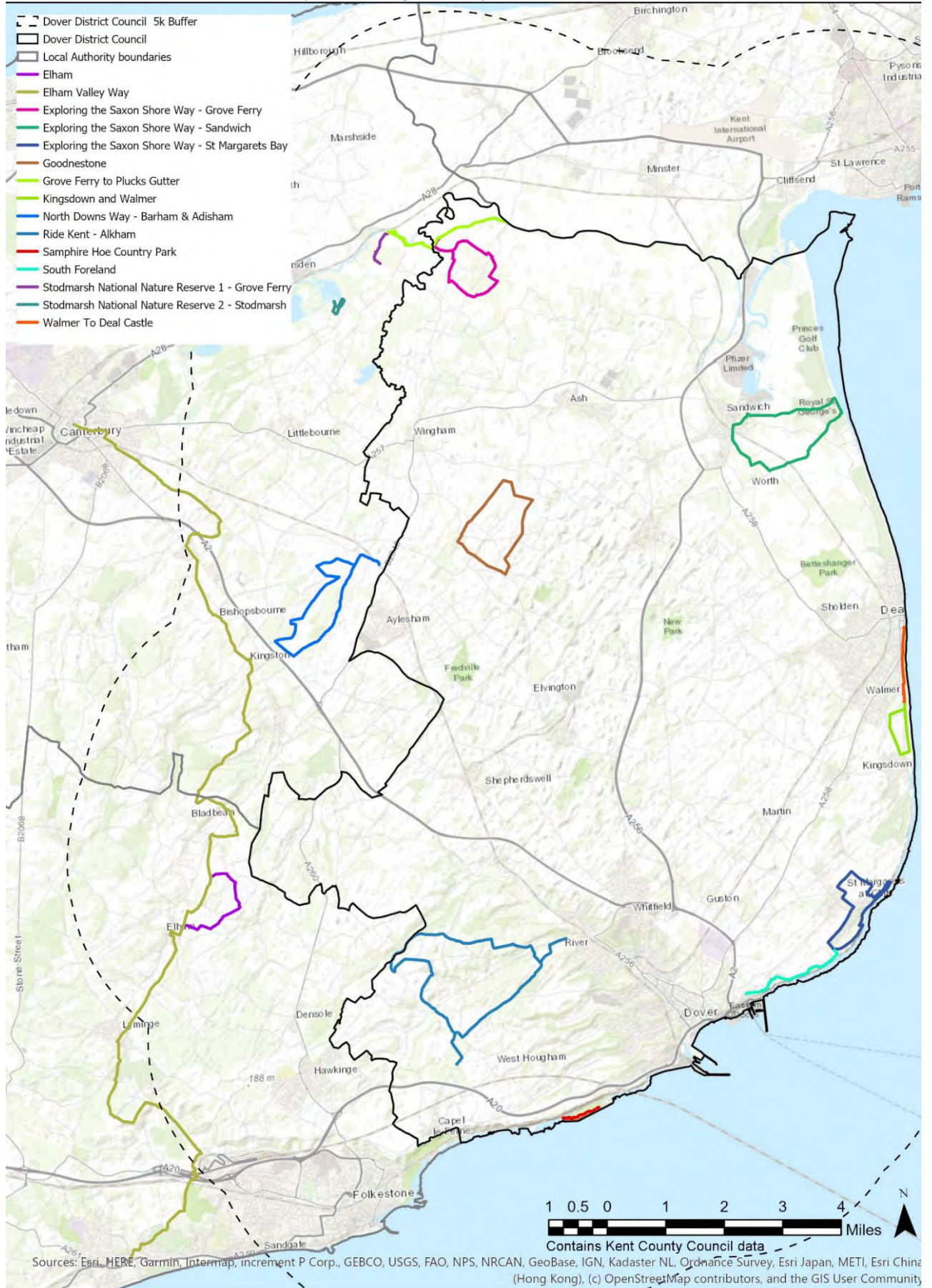


Plan 23: Longer Promoted Routes (Kent County Council / Explore Kent)





Plan 24: Shorter Promoted Routes (Kent County Council)



# Open Spaces and Access to Greenspace

## Open Space Strategy 2019

An assessment of open spaces in Dover district was completed in 2019, alongside a paper on open space quantity standards.<sup>42</sup> The assessment provides detail about the provision of open space in the district, its condition, distribution and overall quality. It aims to help inform the future requirements for provision based upon population distribution, planned growth and findings. It also gives direction on the future provision of accessible and high-quality provision for open spaces. This green and blue infrastructure strategy considers these recommendations in terms of open space and access to greenspace.

### Open Space Provision in Dover District

Open spaces not only provide areas for recreation and access, they can enhance the landscape and urban setting, help to mitigate against air pollution and provide nature conservation habitats. Ensuring that open spaces provide a range of these benefits is critical to green and blue infrastructure planning. National best practice sets out benchmarks for typologies of open spaces.

Residents of and visitors to the Dover district have access to a wide range of open spaces for amenity use from the historic park at Kearsney Abbey to local, informal kick-about areas. Many of these are owned and managed by the district council, but others are provided by organisations including town and parish councils.

Those accessible open spaces which are included in the Open Space Assessment Report are shown in Plan 25.

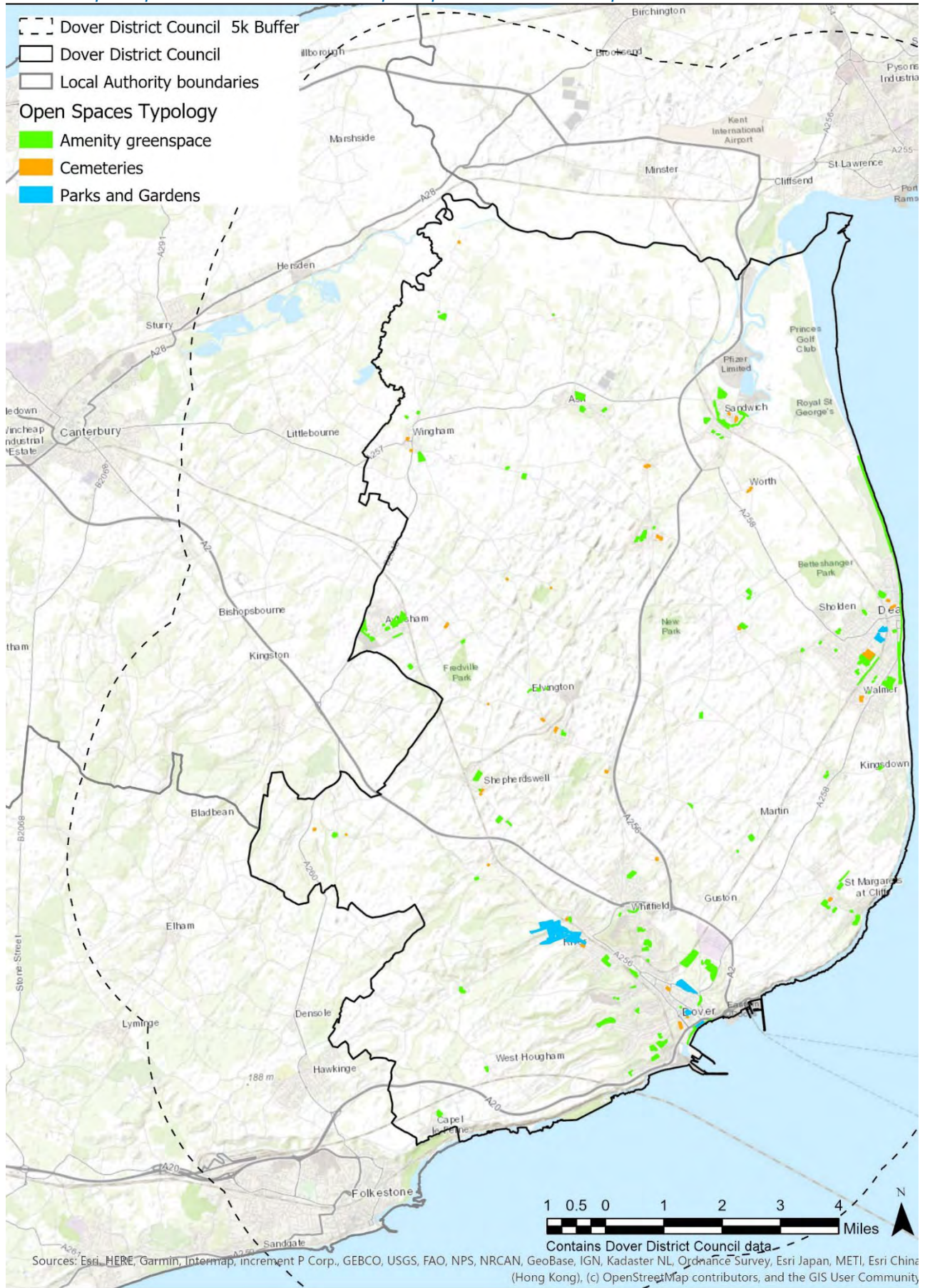
The Open Space Assessment Report was used to develop standards by typology for Dover district. Five analysis areas were used in the assessment, derived from ward boundaries to reflect settlement areas. The use of analysis areas allows more localised examination of open space surpluses and deficiencies. They also allow local circumstances and issues to be taken into account.

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<sup>42</sup> Knight, Kavanagh and Page Ltd. (2019). *Dover District Council Draft Open Space and Play Standards Paper* and Knight, Kavanagh and Page Ltd. (2019). *Dover District Council Open Space Assessment Report*.



Plan 25: Open Spaces included in Dover's Open Space Assessment Report





## Open Space Strategy Standards

The Open Space and Play Standards Paper recommends that the current provision levels of open space are used as the quantity standards for Dover district, see Table 8. The national benchmark quantity standards were not deemed appropriate as they do not take into consideration the local circumstances, distribution and historical trends of the area. An approach using locally derived quantity standards ensures more reflective standards are set as they are based on and take consideration to current local provision levels and views. Furthermore, the community survey showed residents are content with existing levels of provision. The amount and availability of provision is very satisfactory (17.7%) or quite satisfactory (46.5%) by respondents to the community survey.<sup>43</sup>

However, the exception is for natural and semi-natural greenspace. The existing provision level of 3.47 hectares per 1,000 population is well above the national Fields in Trust (FIT) benchmark of 1.80 hectares per 1,000 population. It was considered that the application of the existing provision level as a quantity standard to new housing developments is likely to be unachievable as a large amount of provision would be required to maintain the existing levels identified.

*Table 8: Open Spaces Quantity and Access Standards<sup>44</sup>*

Typology		Hectares per 1,000 population				Access standard
		Quantity standard		National benchmarks		
Accessible greenspace	Parks and gardens	0.45	1.91	0.80	1.4	1,200 metres or 15-minute walk time
	Amenity greenspace	1.46		0.60		800 metres or 10-minute walk time
Natural and semi-natural greenspace		3.47	n/a	1.80		-
Provision for children and young people		0.06	0.06	0.25		Strategic sites: 1,200 metres or 15-minute walk time Provision for children and 0.06 young people Non-strategic sites: 600 metres or 7.5-minute walk time
Allotments		0.20	0.21	0.25		1,200 metres or 15-minute walk time

Consultation with the parish councils highlighted a perceived lack of provision of some typologies, particularly allotments and play facilities, but concerns also relate to quality and access. A methodology for identifying and dealing with quality issues is considered in detail in the Dover District Council Open Space Assessment Report.

As well as the Open Space Assessment Report, there are several other documents that were considered for this section including the Parish and Practitioners workshop and the Sandwich master-planning proposals. The mapping data provide by Dover District Council has also been studied for gaps and opportunities.

<sup>43</sup> Knight, Kavanagh and Page Ltd. (December 2019). *Dover District Council Draft Open Space and Play Standards Paper* page 12 and replacement Local Plan DM Policy 31: Providing Open Space.

<sup>44</sup> *Ibid* page 11.

## Countryside Visitor Sites

There are three sites in Dover district which are particularly popular for visitors and which offer a range of facilities.

### Samphire Hoe

Samphire Hoe Country Park is 2 miles (3km) west of Dover town. It covers 30-hectares at the foot of the famous Shakespeare Cliff, between Dover and Folkestone.

Samphire Hoe was created by Eurotunnel during the construction of the Channel Tunnel and officially opened to the public on 17 July 1997. The park was created from 4.9 million cubic metres of chalk marl from Channel Tunnel excavations. The site is owned by Eurotunnel Ltd and managed by the White Cliffs Countryside Project.

The park is accessible by the public via a single-track tunnel controlled by traffic lights which crosses over the railway line running in a tunnel underneath. The nearest bus stop is at Aycliff, requiring a 20 minute walk to the country park.

Visitor facilities include car parking, toilets and a tea kiosk. There is also an education shelter.<sup>45</sup> A network of footpaths allow visitors to walk around the Hoe and observe the wildlife. Most of the Hoe is accessible for wheelchair and pushchairs and there is a recommended route sign posted 'Front Path' and 'West Shore'. In 2017, around 110,000 visitors explored the park. There are also free leaflets, an information board and panels with the latest wildlife sightings.

Samphire Hoe has a variety of habitats and is surrounded by sea on one side and cliffs on the other. It is a haven for wildlife. The site supports a rich biodiversity including many species of butterflies and moths, spider orchids, dragonflies and damselflies and many birds.<sup>46</sup>

### The White Cliffs of Dover

The White Cliffs of Dover National Trust site<sup>47</sup> is situated at Langdon Cliffs, Upper Road, Dover. The National Trust owns sections of the cliff and inland areas, including the South Foreland lighthouse.

These high chalk cliffs look out onto the English Channel, giving far-reaching views towards the French coast. The chalk grassland supports many unusual plants and insects like the chalk hill blue butterfly and the pyramidal orchid and is a Special Area of Conservation.

The cliffs also have a special place in national history, and they were used for defence in both World Wars. The White Cliffs are open to walkers free of charge every day of the year. The cafe, gift shop and toilets are open daily 10-5pm, March to October with shorter hours in winter. A free walking map of the cliffs is available from the visitor centre.

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<sup>45</sup> <http://www.samphirehoe.com/uk/samphire-hoe/place/>

<sup>46</sup> <http://www.samphirehoe.com/uk/biodiversity/wildlife-species/>

<sup>47</sup> <https://www.nationaltrust.org.uk/the-white-cliffs-of-dover>

The White Cliffs receive very high numbers of visitors every year. Path erosion is one of the biggest challenges at Langdon Cliffs, as heavy footfall damages paths and surrounding protected nature conservation grassland. The site sees an increase in visitors by 10% each year.<sup>48</sup>

The White Cliffs are a major international landmark and the 320 space car park at Langdon Cliffs is often full on most weekends between March – October and therefore sometimes has to be closed. This can create traffic issues in the local area and Upper Road can be blocked with parked cars. The National Trust is investigating alternative parking options. The construction of the A20 in the 1980s severed most access points to half of the White Cliffs and therefore it is difficult to access the site my means other than car.<sup>49</sup> The White Cliffs car park is the only car park of any size in the area from which to access the landmark.

Visitor surveys were carried out along the Dover to Kingsdown Cliffs SAC, including at the White Cliffs visitor centre site, in the summer of 2021.<sup>50</sup> This found that the site had a large catchment area, with the average distance travelled to the White Cliffs visitor centre site being 42km. The site is highly visited by holiday makers, with the survey finding that 48% of visitors were on holiday and 42% were first time visitors.

Volunteers from across the local area help the National Trust to look after the site. The community supports the property and the property supports the community by providing opportunities to meet and socialise. The National Trust also has an ongoing project entitled 'Everyone Welcome' with the aim of working with and having a meaningful relationship with underrepresented audiences.

## Betteshanger Park

Betteshanger Park<sup>51</sup> was first established in 2007 as Fowlmead Country Park, when the former colliery spoil heap from Betteshanger Colliery was transformed into a space for people to access and explore the outdoors.

The site has been transformed over the years to become a centre for outdoor sporting and adventure activities. The Park also provides more specialist facilities for track cycling and off-road or mountain biking a Visitor Centre and the Kent Mining Museum.

Betteshanger Country Park offers considerable opportunities for leisure and recreation for Deal, Walmer and the wider district. It could help to attract visitors away from coastal areas where there is high pressure on protected nature conservation sites. However, pedestrian and cycle access to the site from Deal is not ideal and public transport requires a 20 minute walk from the nearest bus stop.

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<sup>48</sup> Paper from National Trust, April 2020, supplied as background for this strategy.

<sup>49</sup> The 2021 survey found that 90% of visitors travelled to the White Cliffs visitor centre site by car.

<sup>50</sup> Blackwood Bayne Ltd. (2021). *Visitor Surveys -Lydden and Temple Ewell Downs SAC and Dover to Kingsdown Cliffs SAC, July – August 2021.*

<sup>51</sup> <https://www.betteshanger-park.co.uk/>



# Access to Natural and Semi-Natural Greenspace

## Accessible Natural Greenspace

The definition of what comprises accessible natural and semi-natural greenspace varies. However, these greenspaces are generally recognised to be areas accessible to the public, free of charge,<sup>52</sup> which are managed for nature or have a large proportion of semi-natural vegetation or habitats.

The definition adopted by English Nature<sup>53</sup> in the early 1990's is greenspace at which a "*feeling of naturalness predominates*".<sup>54</sup> Difficulties can arise when trying to determine the extent of 'naturalness' and whether this 'predominates'. Not all sites will fall neatly into this category and there is room for interpretation. To assist, Natural England developed a proxy measure based on four categories. Level 1 and Level 2 sites include, amongst others, nature conservation designated sites, woodland, open access land, country parks and unimproved grassland.

The term 'accessible' has a specific meaning in the context of Accessible Natural Greenspace. At a basic level the site must always be available for the public to use and without charge.<sup>55</sup>

Natural England's Accessible Natural Greenspace Standard (ANGSt), developed in 1996, provides a set of benchmarks for ensuring access to places near to where people live. They recommend that people living in towns and cities should have:

- An accessible natural greenspace of at least two hectares in size, no more than 300 metres (5 minutes' walk) from home;
- At least one accessible 20 hectare site within two kilometres of home;
- One accessible 100 hectare site within five kilometres of home;
- One accessible 500 hectare site within ten kilometres of home;
- A minimum of one hectare of statutory Local Nature Reserves per thousand population.

Two recent reports have attempted to quantify accessible natural greenspace. Each of these have used different methodologies to assign spaces in this typology and, therefore, have arrived at different results for Dover district.

## Dover District Council Open Space Assessment (2019) – Assessment of Semi-Natural Greenspace

The Open Space Assessment identified 28 natural and semi-natural greenspace sites, totalling 401 hectares. All but four<sup>56</sup> of these were not assessed for quality and value. No sites under 0.2 hectares were included. No quantity or quality standards were set for accessible natural greenspace.

The largest of the natural and semi-natural greenspace sites is Betteshanger Country Park (formerly Fowlmead) at 97 hectares. The site accounts for 24% of natural and semi-natural greenspace provision. Other larger sites include Free Down, Oxneybottom Wood, The Butts (42

<sup>52</sup> Except for parking charges. Natural England. (2010). *Nature Nearby - Accessible Natural Greenspace Guidance*.

<sup>53</sup> The predecessor organisation of Natural England.

<sup>54</sup> Natural England (2010), *Nature Nearby, Accessible Natural Greenspace Guidance*.

<sup>55</sup> Apart from being closed overnight, or a parking charge applying.

<sup>56</sup> Betteshanger Country Park, Gazen Salts Nature Reserve, 'rear of Clarendon Place' and Samphire Hoe Country Park.

hectares), Old Park Hill, Woods and Pastures Birchanger Wood (30 hectares) and South Foreland Valley (27 hectares).

The assessment states that, based on the dataset used, the following ANGSt benchmarks apply to Dover district.

*Table 9: Percentage of Population meeting ANGSt Dover District Council Open Space Assessment 2019*

10.5% of households have access to a site of at least 2 hectares within 300 metres
63.1% of households have access to a site of at least 20 hectares within two kilometres
0% of households have access to a site of at least 100 hectares within five kilometres
0% of households have access to a site of at least 500 hectares within 10 kilometres

### Kent Nature Partnership Needs Assessment (2016)

A report by the Kent Nature Partnership<sup>57</sup> also assessed access to natural greenspace. The criteria broadly followed Natural England's Accessible Natural Greenspace standards, using a broader definition of natural greenspace than that used for the Dover Open Space Assessment. This assessment included Local Nature Reserves, Kent Wildlife Trust reserves, Woodland Trust reserves, state owned woodland, village greens and common land. Public rights of way and other access routes were used to determine how accessible sites were.

Postcodes which do not have access to natural greenspace within ANGSt distances were calculated. This study includes many more natural greenspace sites than the Dover Open Space Assessment and therefore the results are very different, see Table 10 and Plan 26.

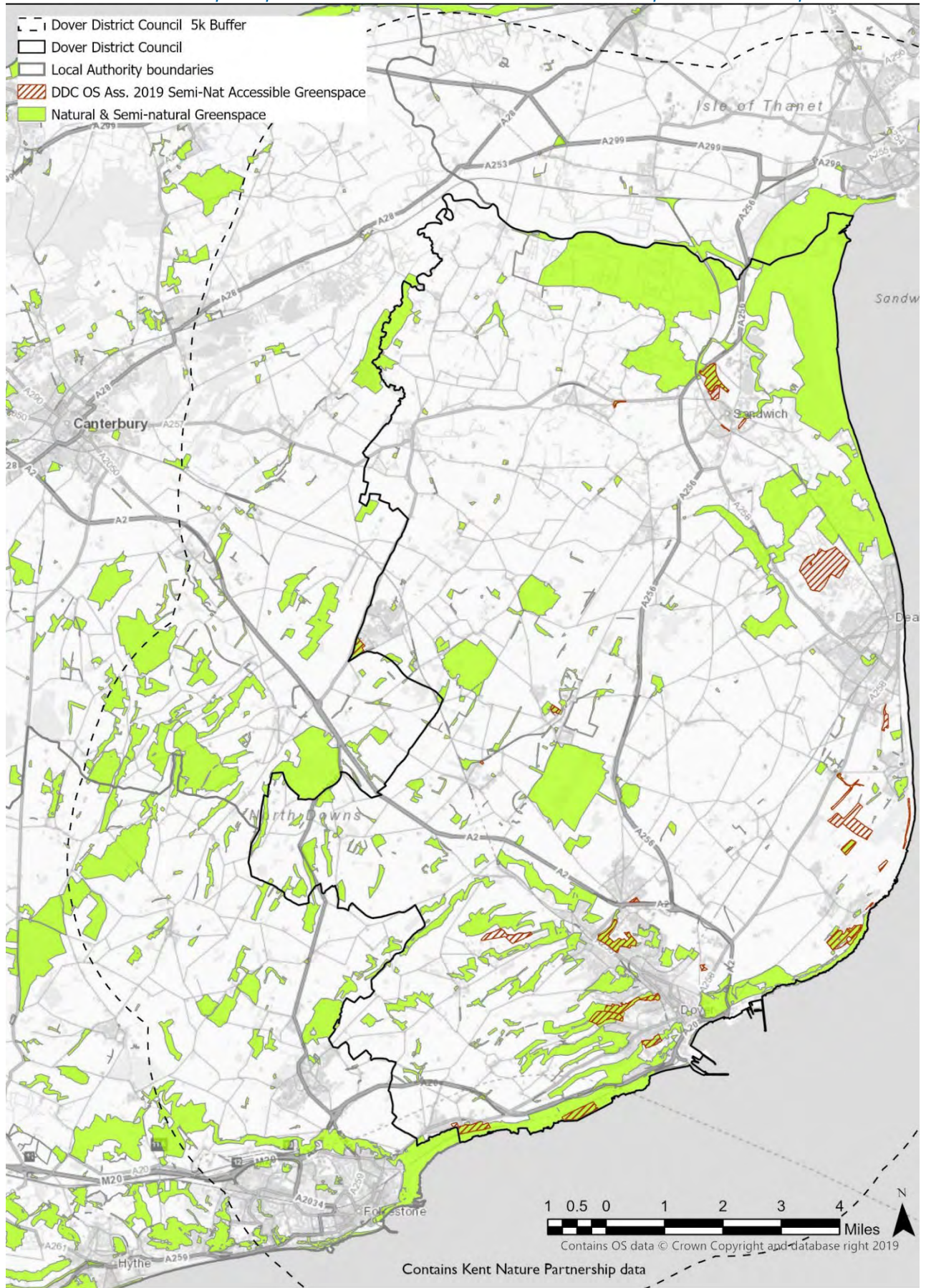
*Table 10: Percentage of Population Meeting ANGSt in Dover District – Kent Nature Partnership 2016*

34% of households have access to a site of at least 2 hectares within 300 metres
76% of households have access to a site of at least 20 hectares within two kilometres
88% of households have access to a site of at least 100 hectares within five kilometres
42% of households have access to a site of at least 500 hectares within 10 kilometres

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<sup>57</sup> Bennett, T., Davies, Z., Hodgson, S., Pett, T., & Witts, T. C. (2016). *A needs assessment relating to the provision of natural greenspace in areas with low levels of physical activity*. Kent Nature Partnership.

Plan 26: Dover District Open Space Assessment and Kent Nature Partnership Natural Greenspace





## Natural England Access Network Mapping

The Access Network Map of England is a national composite dataset of access layers developed by Natural England. It shows the extent of access provision for each Lower Super Output Area (LSOA),<sup>58</sup> as a percentage or area of coverage. The mapping map shows the relative abundance of accessible land in relation to where people live.

Access Network Maps help the assessment of the amount of accessible land available in relation to where people live. They combine good quality data on access provision into a single dataset and relate this to population. However, it does not include local authority data.<sup>59</sup>

The hectareage of access was combined and the total hectares of accessible land and percentage of area in each LSOA has been calculated. Linear routes were assigned a notional width of 3 metres so they could be measured in hectares.

Datasets contained in the Natural England's Access Network Mapping are:

- Agri-environment scheme permissive access (routes and open access);
- CROW access land (including registered common land and Section 16);
- Country Parks;
- Cycleways (Sustrans Routes) including Local/Regional/National and Link Routes;
- Doorstep Greens;
- Local Nature Reserves;
- Millennium Greens;
- National Nature Reserves (accessible sites only);
- National Trails;
- Public Rights of Way;
- Forestry Commission 'Woods for People' data;
- Village Greens – point data only.

The mapping outputs for Dover district are shown in Plan 27.

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<sup>58</sup> These represent where approximately 1,500 people live based on postcode.

<sup>59</sup> E.g. parks and gardens, amenity greenspace, outdoor sports facilities and other locally derived typologies only mapped and held on local authority datasets.



## Summary – Accessible Natural Greenspace Provision in Dover District

The previous section highlights the range of sites which can be included in the definition of accessible natural greenspace. The definition used in the Kent Nature Partnership report is expansive; and includes all sites where there is some access, even if this is only on a public right of way. The Dover Open Space Assessment only includes a limited number of sites and does not include all the sites in the original Natural England definition and therefore will be an underestimate.

There is not an up-to-date dataset which includes all accessible natural greenspace against a standard definition. However, examination of the evidence from the reporting available enables the following conclusions to be drawn:

- The central part of the district has limited accessible natural greenspace resource by area and by population. There is a lack of natural accessible greenspace across the whole of the centre of the district. In this area most sites are small. The primary access resource is the public rights of way network. There are no country parks or Local Nature Reserves. Access to most natural greenspace is through public rights of way crossing the land;
- There are high levels of accessible natural greenspace along the coast. However, some of these sites contain habitats or species which are sensitive to recreation;
- The area immediately to the west of Dover town has very good provision of accessible natural greenspace, primarily through CROW Act access land.<sup>60</sup> The Kent Downs AONB Management Plan highlights the need to identify how the CROW Act open access sites can bring wider benefits and link to education and information provision.

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<sup>60</sup> The Countryside and Rights of Way Act 2000 (CROW Act) normally gives a public right of access to land mapped as 'open country' (*mountain, moor, heath and down*) or registered common land. These areas are known as 'open access land'.



## Recreational Pressure on Accessible Natural Greenspace

There are some accessible natural greenspaces and countryside areas which receive high numbers of visitors. This is both from residents and visitors from outside of the district.

The National Trust White Cliffs of Dover receives a very high number of visitors. This causes erosion of the paths and has the potential to damage the chalk grassland habitats through trampling pressure. A visitor survey was carried out in the summer of 2021 to provide information to support management actions.

The Kent Downs AONB Management Plan also highlights the increasing number of people visiting the countryside. The plan reports that:

*“Estimated day visitor numbers are high and increasing and peaked during the Covid pandemic. Pressure on the special characteristics and qualities of the AONB as well as particular countryside routes, sites and areas can be very high but unevenly distributed, concern about ‘over visiting’ has been reported by farmers and land managers, managers of wildlife sites and managers of visitor attractions.”<sup>61</sup>*

An increase in population may lead to an increase in those wishing to visit the countryside. In addition, whilst there are benefits in enabling people to visit accessible natural greenspace in terms of health and wellbeing and accessing nature, this access needs to be managed to ensure that there are not detrimental impacts. This management can include better interpretation and information, investment in good quality routes, including surfacing and waymarking and reducing the need to travel to use the countryside.

There are some specific areas of the countryside where recreational pressure could have a negative effect on biodiversity interest. Where these sites are designated as part of the ‘Natura’ network<sup>62</sup> and there is a significant effect arising from recreation, mechanisms exist to mitigate against such effects. The Habitat Regulations Assessment (HRA) carried out for new Local Plan<sup>63</sup> recognises that increases in recreational activity at Sandwich Bay, within the Thanet Coast and Sandwich Bay Special Protection Area and Ramsar, arising from development in the district may have a significant adverse effect on the bird populations for which the site is designated. In order to monitor and mitigate against these effects Dover District Council has produced a revised Strategic Monitoring and Mitigation Strategy,<sup>64</sup> which updates the previous version.<sup>65</sup> Through this, the authority will collect contributions from developers to deliver monitoring of visitors and birds throughout the lifetime of the Local Plan. It will also fund visitor management and engagement approaches.

The HRA also advises that it is possible that adverse effects may arise from recreational pressure on other Natura sites, for example the sites designated for their chalk grassland habitats. The HRA recommends that visitor surveys are carried out to monitor these sites throughout the Local Plan period.

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<sup>61</sup> Kent Downs Area of Outstanding Natural Beauty. (2021). *Kent Downs Area of Outstanding Natural Beauty Management Plan 2021 – 2026*, page 121.

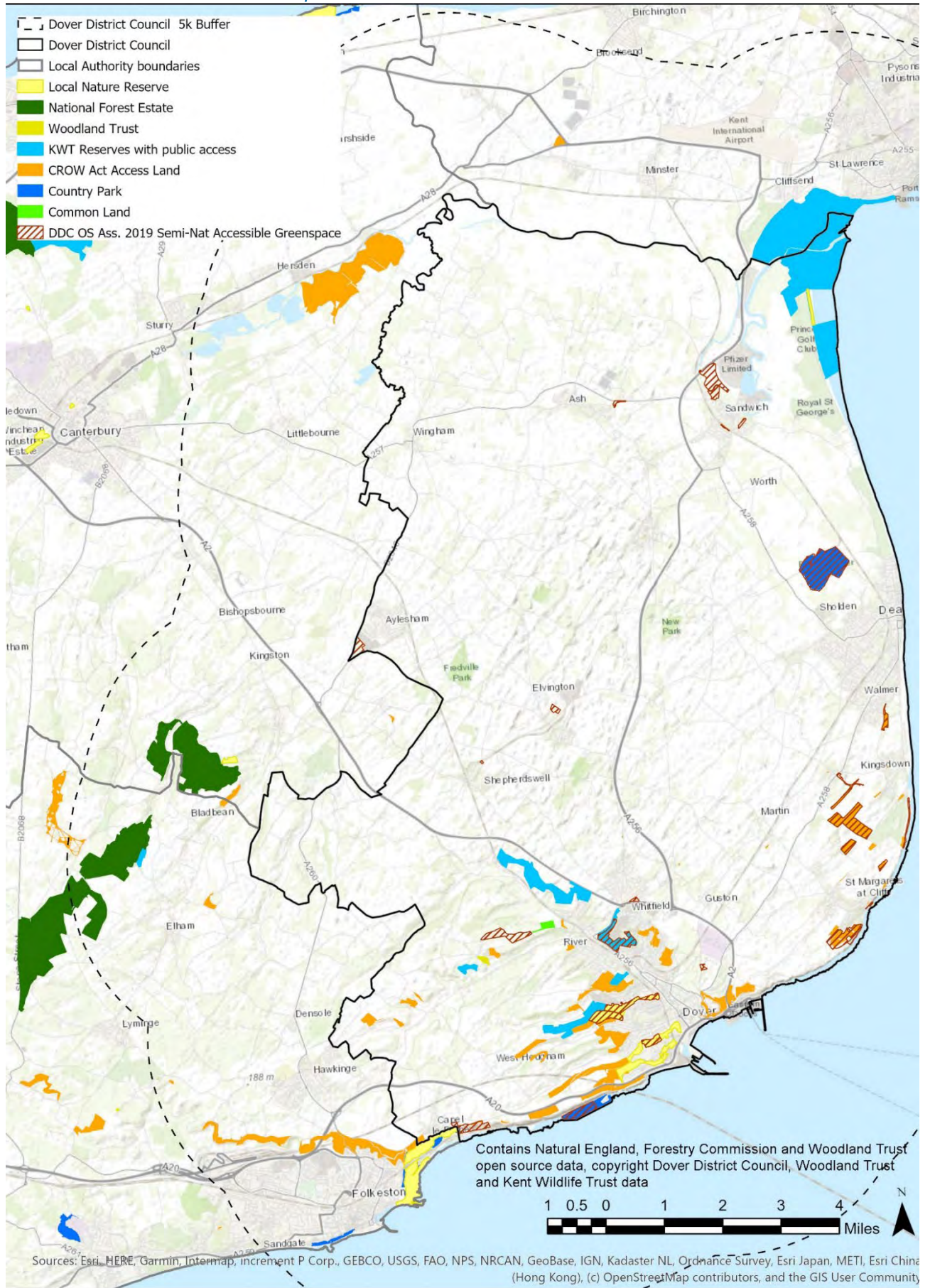
<sup>62</sup> Europe’s most valuable and threatened species and habitats, designated through the Birds Directive (Directive 2009/147/EC) or the Habitats Directive (Council Directive 92/43/EEC).

<sup>63</sup> Dover District Council. (2021). *Draft Dover District Local Plan (Reg. 18) – Habitats Regulations Assessment*.

<sup>64</sup> Dover District Council. (2022) (Draft). *Thanet Coast SPA Mitigation Strategy*.

<sup>65</sup> Dover District Council. (2012). *Thanet Coast SPA Mitigation Strategy*.

Plan 28: Accessible Natural Greenspace



## Tourism

The location of Dover puts it both at the centre of surface travel to and from continental Europe and on the edge of domestic economic activity.

### Destination 'White Cliffs Country' Dover District Council Tourist Strategy

Dover's Tourism Strategy outlines a framework for the development of tourism in White Cliffs Country over the next ten years. The strategy aims to create a unique opportunity to showcase the very best of White Cliffs Country to regional, national and international markets.<sup>66</sup>

The report has five main themes:

- Ideas - To build an innovative economy;
- People - To generate good jobs and greater earning power for people living in the district;
- Place - To develop prosperous communities throughout the district;
- Business environment - To be 'open for business' and the best place in England to start and grow a business;
- Infrastructure - To see a major upgrade in infrastructure.

The tourism strategy aims to promote a range of initiatives that would enhance the green and blue infrastructure in the district.

Under 'Place' the Tourist Strategy aims to:

- Promote 'countryside, nature, parks and open spaces' and invest in the development of parks and open spaces to create a high-quality environment, with a view to achieve a 'Green Flag Award' accreditation;
- Work with partners to achieve a 'Blue Flag Award' accreditation;
- Investigate the potential of 'The White Cliffs of Dover' becoming a UNESCO World Heritage Site;
- Investigate the potential of the Kent Downs Area of Outstanding Natural Beauty (AONB) becoming a National Park.<sup>67</sup>

Under 'Infrastructure' the Tourist Strategy aims to:

- Invest in cycling infrastructure to improve connectivity and accessibility, and encourage 'greener' and more sustainable transportation;
- Invest in walking infrastructure to improve connectivity and accessibility and encourage 'greener' and more sustainable transportation.<sup>68</sup>

The tourist strategy also aims to promote its three main character towns – Deal (maritime town) Dover (historic town) and Sandwich (Medieval town) as well as the traditional rural villages, heritage, coast and countryside.

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<sup>66</sup> Dover District Council. (2020). *Destination White Cliffs Country – Growth Strategy for Tourism and the Visitor Economy 2020 - 2030 (Executive Summary)*, page 5.

<sup>67</sup> *Ibid*, page 15.

<sup>68</sup> *Ibid*, page 19.



The tourist strategy has highlighted the green and blue infrastructure opportunities in the district by promoting ‘White Cliffs Country’ and the document acknowledges the high value of the district’s unique landscape character and assets:

“White Cliffs Country offers a fantastic array of nine different themed cycle routes and trails spanning the district, including National Cycle Route 1 and Route 2, as well as National Cycle Network Route 16 and 17”.<sup>69</sup>

The website [www.whitecliffscountry.org.uk](http://www.whitecliffscountry.org.uk) promotes walks and trails in the Dover district, providing links to other websites that give more information – such as the White Cliffs Partnership and the Ramblers. Leaflets and maps are provided, but these are often not very detailed and might be difficult to access for the casual visitor (see Figure 3).

Figure 3: Promoted Walks and Trails ‘White Cliffs Country’ Website

The screenshot displays the website's layout for promoting local walks and trails. On the left, a vertical list titled 'WALKING ROUTES AND TRAILS' includes 15 items, each with a small image and a brief description, such as 'ST MARGARET'S BAY WALK - GUARDING THE SANDWICH' and 'THE NORTH DOWNS WAY'. The central part of the page features a large map of the Dover district, showing major roads (A1, A157, A158, A160, A163, A164, A165, A166, A167, A168, A169, A170, A171, A172, A173, A174, A175, A176, A177, A178, A179, A180, A181, A182, A183, A184, A185, A186, A187, A188, A189, A190, A191, A192, A193, A194, A195, A196, A197, A198, A199, A200) and various walking and cycling routes marked with colored lines and icons. The routes are color-coded: National Walks (blue), England Coast Path (green), Saxon Shore Way (orange), North Downs Way (red), National Cycle Network Route 16 (purple), National Cycle Network Route 17 (yellow), and Miners' Way Cycle Trail (pink). The map also shows the coastline, the English Channel, and the town of Dover. On the right side, there are sections for 'CYCLE ROUTES' and 'INFORMATION'. The 'CYCLE ROUTES' section lists National Cycle Network Route 1, The Sandwich Way (Route 15), and National Cycle Network Route 16 and 17. The 'INFORMATION' section includes 'OUR VILLAGES', 'ACCOMMODATION', 'GETTING AROUND', 'MAPS', 'CYCLE HIRE AND REPAIRS', and 'STAY SAFE TIPS'. The website footer includes the URL 'whitecliffscountry.org.uk' and a small logo.

<sup>69</sup> Dover District Council. (2020). *Destination White Cliffs Country – Growth Strategy for Tourism and the Visitor Economy 2020 - 2030 (Executive Summary)*, page 43.

## Explore Kent

Explore Kent is a Kent County Council led partnership initiative with public, private and voluntary sector partners that promotes and actively encourages Kent's residents to access, enjoy and benefit from the great natural resources that Kent has to offer.

The website promotes activities, walks, trails and cycle routes around Kent and there is a link to 'Kent Connected' <https://kentconnected.org> to get travel information, which also provides links to leisure routes if specifically searched for.

## Conclusion on Tourism in Dover District

To deliver the green and blue infrastructure ambition of the tourist strategy the district should aim to put resources into enhancing and protecting green and blue infrastructure in order to make sure that they fulfil the strategy's ambition, while also mitigating the effects of increased visitor pressure. This might be done by increased promotion of destinations and walking and cycling routes away from some of the more environmentally sensitive areas – particularly from the coast. Recognising that the coast will always be a draw, it is also important that increased resources and strategies are developed to help to reduce damage to those ecologically sensitive areas.

The White Cliffs of Dover is an internationally iconic site and a significant economic generator for the local economy. It is important that the site grows sustainably in order that the site can adapt to be able to cope with the challenges of year on year increases in visitor numbers. A multi-agency approach would be beneficial to improve visitor experience, improve accessibility, to protect and enhance the SAC and other importance areas of habitat.

## Active Travel

Active travel means walking or cycling as a means of transport rather than for leisure purposes, and it can be undertaken for a whole journey or parts of it. It can benefit health and wellbeing by incorporating physical activity into everyday routine as well as reducing the number of vehicles on the road, thereby reducing congestion, improving air quality and reducing the emission of climate change gasses. Investment in active travel also makes economic sense, with a high benefit to cost ratio for many schemes. The Department of Transport's Cycling and Walking Investment Strategy (2017) makes a commitment to supporting walking and cycling infrastructure projects.

A well-designed, accessible environment can encourage people to walk or cycle. People cycle more when there is cycle infrastructure and separation from traffic. Conversely, a lack of routes, poor information about routes, concerns over safety and the speed and convenience of motorised transport all act as barriers to people choosing active travel.

The primary active travel network in Dover district is shown in Plan 29. This network includes pavements alongside roads, Sustrans national and regional routes (National Cycle Routes 1 and 2 and Regional Cycle Network Routes 16 and 17 run through the district), public rights of way which can be used for cycling and district cycling routes.







## Barriers to Active Travel

Feedback from Kent residents and organisations shows that the main reasons for not making short journeys using active travel are a perceived lack of suitable continuous routes between homes and community services, workplaces or schools, and not enough promotion of existing routes. Other issues include a lack of facilities such as lockers and secure bicycle parking, obstacles in cycle lanes and in footways, and perception of safety when walking and cycling.<sup>70</sup>

## Strategies and Policies

- The Kent Active Travel Strategy and 2018/19 Action Plan - This report provides further context for initiatives to encourage and facilitate active travel. It includes intent to integrate active travel into planning, provide and maintain appropriate routes for active travel and support active travel in the community. Kent County Council's Active Travel Transport Planner also recommends promoting initiatives such as 'Click2Cycle',<sup>71</sup> particularly from new housing areas to stations, as well as promoting electric bikes (the gradients in some parts of Dover district are quite challenging). Where possible, off road routes should be encouraged – through new estates and through areas of greenspace. These initiatives will address the barriers to travel and help to bring down journeys by car, thus improving health and air quality. The 'Kent Connected' website<sup>72</sup> and travel app is a free journey planner that allows the user to make smarter sustainable travel choices. Kent Connected shows live bus and train times and provides different route suggestions for walking and cycling and includes an integrated walking and cycling map to guide the user.
- Kent Local Transport Plan 2016 – 2031 – Kent County Council aims to promote active travel as an attractive and realistic choice for short journeys in Kent by the delivery of smaller schemes designed to encourage users to switch to walking, cycling and public transport through the provision of facilities such as crossings, footway improvements, bus priority and cycle lanes, as well as Smarter Choices initiatives such as publicity and travel plans.<sup>73</sup>
- Dover District Cycling Plan 2008 – This report states that cycling will be promoted as an alternative mode of transport. People will be encouraged to transfer shorter journeys, currently made by the car, to bicycle. It also proposed that a cycle route map for the district could include information about cycle-friendly areas, such as 20mph zones.
- Dover District Active Travel Audits (2020) – Dover District Council commissioned Sustrans to produce walking and cycling audits for Dover Town, Deal, Sandwich and Aylesham, plus a 'three town' report connecting Sandwich, Deal and Dover. These reports highlight opportunities for improving walking, cycling and active travel.

There are several opportunities which are common to all these reports that connect to the green and blue infrastructure strategy. Development in Dover district affords the opportunity to look at the improvements suggested in the Sustrans active travel audits. There are also opportunities to join up the thinking on leisure routes proposed in the tourism strategy.

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<sup>70</sup> Kent County Council. (2017). *Active Travel Strategy*, page 5.

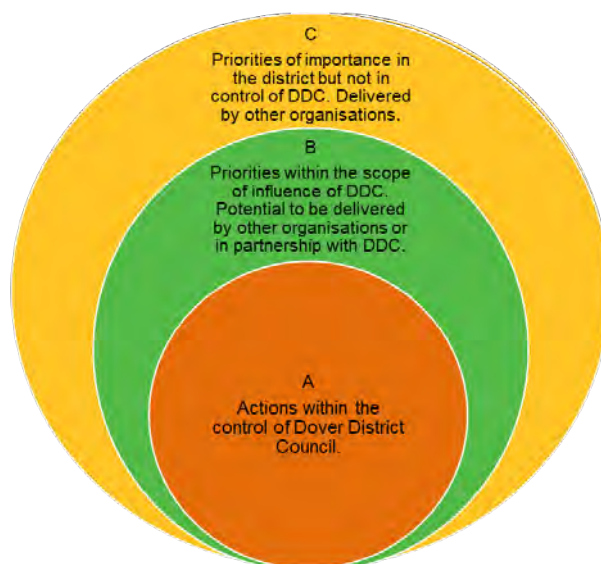
<sup>71</sup> A bike hire business operating in and around Folkestone <https://www.click2cycle.com>

<sup>72</sup> <https://kentconnected.org>

<sup>73</sup> Kent County Council. (2016). *Local Transport Plan 4 – Delivering Growth without Gridlock 2016 – 2031*, page 23.

## Needs, Opportunities and Priorities

Below is a summary of the needs, opportunities and priorities for the recreation, access and active travel theme. As set out in the introduction to this strategy, this strategy identifies priorities and needs, not all of which are within the direct control of the council, or which can be delivered by the council alone.



### Recreation, Access and Active Travel Needs, Opportunities and Priorities

	Strategic Priority and Opportunities	Delivery
<b>1</b>	<b>Ensure that greenspace provision keeps pace with population growth and provides for Dover's future residents.</b>	
1.1	Ensure that open space provision meets the standards set out in Dover's Local Plan and that development delivers high quality greenspace provision to meet the needs of new residents.	A
1.2	Manage greenspaces to ensure that they can accommodate high levels of visits, and potentially increased visits, are of good quality and provide infrastructure and maintenance to meet high demand.	B
1.3	Seek new greenspace in areas where there is a deficit.	B
1.4	Where development is taking place, ensure that public rights of way are improved and, where possible, provide multi-user and traffic-free routes and new connections.	A
1.5	Invest in public rights of way, particularly those linking town and countryside, to ensure they are accessible to a wide range of people.	C
1.6	Plan strategically to ensure accessible greenspace, cycle routes, walkable spaces and public rights of way are connected, especially in areas of development, so that opportunities are not lost and gains are delivered.	B
<b>2</b>	<b>Support increased active travel, to relieve congestion and air pollution and encourage healthy living through a strategic cycle network and walking routes.</b>	
2.1	Make civic spaces and public realm more accessible, attractive and welcoming to encourage people to walk and cycle.	B
2.2	Identify and implement new routes for walking and cycling for active travel and where possible these might be dovetailed with opportunities for leisure routes and access to greenspace.	B
2.3	Ensure urban public rights of way are more fully utilised, keeping them clear from fly tipping, signing them and upgrading for cycling use where possible.	B
2.4	Develop urban promoted walking trails.	B

	Strategic Priority and Opportunities	Delivery
<b>3</b>	<b>Maximise the benefits of recreation and access to Dover's unique landscapes and greenspaces, whilst ensuring that this does not have a negative impact on them or their biodiversity.</b>	
3.1	Use the district's outstanding landscape, heritage and biodiversity to promote tourism in a sustainable way, minimising damage and negative impacts on the environment, landscape and biodiversity sites.	A
3.2	Carry out visitor surveys at sensitive biodiversity sites to monitor visitor impacts.	B
3.3	Ensure that any increases in recreation on sensitive biodiversity sites is managed to avoid negative impacts.	B
3.4	Ensure that promotional materials and tourism promotion includes information on the special qualities of the area and information on how visitors should minimise any negative impacts of their visit on the environment.	A
3.5	Promotion of some routes that encourage people away from the coast to explore other areas of the district, utilising the good network of public rights of way, boosting the rural economy and easing pressure on sensitive parts of the coast.	B
3.6	Partnership working to manage and mitigate visitor pressures on sensitive biodiversity sites at Sandwich Bay, the White Cliffs of Dover and any other sites where there is evidence of visitor impacts which require action.	B



# Health and Wellbeing

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## Green and Blue Infrastructure and Health and Wellbeing

Poor health not only has a negative impact on the individuals themselves, it incurs a cost to society, through the direct costs of health care provision and in reduced economic outputs due to, for example, lower employee productivity, higher absence rates and early mortality.

Being physically active is strongly linked to better health and wellbeing. There is an established causal link between physical activity and many chronic health conditions, including coronary heart disease, stroke, cancer, type 2 diabetes and mental health problems. Walking in particular has been described as “the nearest activity to perfect exercise”<sup>74</sup> being the easiest, most accessible, cost effective, and enjoyable way for most people to increase their physical activity. Active children also do better. Physical activity is essential for healthy growth and development, it increases cognitive outcomes and school attainment and improves social interaction and confidence.

The Marmot Review<sup>75</sup> that the fair distribution of health, wellbeing and sustainability are important social goals and that health and wellbeing is influenced by a wide range of factors. These include community resilience, the built environment and the local economy as well as the wider environment. The Marmot Review’s policy objectives recognise the importance of good quality open and greenspace in tackling health inequality. However, the availability and quality of access to greenspace is not evenly distributed, with those in deprived urban areas often having less access to health-improving greenspace; perhaps five times fewer public parks or greenspace. In 2015, Public Health England published analysis of Kent’s performance on health inequalities against Marmot Review objectives. Overall, Kent scored significantly worse than the England average for ‘Utilisation of outdoor space for exercise/health reasons’.

Health and wellbeing has historically been poorly integrated with spatial planning, an issue recognised in Kent’s Joint Strategic Needs Assessment (Sustainability Chapter).<sup>76</sup> This leads to the creation of places which do not support people in improving their health through regular activity, for example through walking or cycling, or places which contribute to poor health through high levels of road pollution. Poor health can arise due to health inequalities. These are differences between people due to social, geographical, biological or other factors. Some differences, such as ethnicity, may be fixed. Others are caused by social or geographical factors and can be avoided or mitigated. NICE outlines local government services which can bring about improvements. Integrating green and blue infrastructure planning and delivery with health can contribute to most of these areas.

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<sup>74</sup> Heron, C., & Bradshaw, G. (2010). *Walk this Way - Recognising Value in Active Health Prevention*. LGiU for Natural England.

<sup>75</sup> Marmot, M. (2010). *Fair Society, Healthy Lives* (The Marmot Review): Strategic Review of Health Inequalities in England post-2010.

<sup>76</sup> Kent Public Health Observatory. (August 2016). *Joint Strategic Needs Assessment Overview Report*. Kent County Council and NHS.

## Green and Blue Infrastructure and Mental Health

There is increasingly strong evidence of the benefits of access to nature on mental health. The positive effects include improvements to depression and anxiety, improvements to sleep and increased happiness and reduced negative emotions. Access to and physical activity in the natural environment also has a greater impact on improved mental health than physical activity alone.<sup>77</sup> Improvements in self-esteem,<sup>78</sup> positive and negative mood, anxiety levels and feelings of calmness and comfort, with exercise in all types of green environment showing these benefits.<sup>79</sup> Viewing nature can also help recovery from an acute stressor.<sup>80</sup> Often the activity takes place with family, friends or in a group, increasing the mental health benefits gained through social interaction. Being in green environments boosts various aspects of thinking, including attention, memory and creativity, in people both with and without depression. It reduces ADHD symptoms, improves pain control and the immune system. Accessing greenspaces can also be a social activity, generating benefits from social interaction.

Nature-based activities to improve mental health take many forms, not just walking. They can include gardening, creating art, feeding the birds or tending animals, picnicking or enjoying the beach. The whole range of green and blue infrastructure is important and can support mental health. Even just being able to view of nature can be beneficial.

Many people benefitted from these positive features of accessing greenspace during the Covid-19 pandemic and associated social restrictions (see next) but anxiety levels have increased and happiness levels decreased overall from a 2019 baseline.<sup>81</sup>

A wide range of green and blue infrastructure can support physical and mental health. This not only includes walking and cycling routes but spaces for other activities, such as growing healthy food. Access to outdoor sports provision also supports physical and mental health and can promote social interaction. Access to the coast and to water, nature hunting, birdwatching and a host of other activities in nature support health and wellbeing.

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<sup>77</sup> Pretty, J. e. (2005). *A countryside for health and well-being: the physical and mental health benefits of green exercise*. Sheffield: Countryside Recreation Network; Thompson Coon, J., Boddy, K., Stein, K., Whear, R., Barton, J., & Depledge, M. (2011). *Does Participating in Physical Activity in Outdoor Natural Environments Have a Greater Effect on Physical and Mental Wellbeing than Physical Activity Indoors? A Systematic Review*. *Environmental Science and Technology*, 45(5) pp1761-1772; <https://www.newscientist.com/article/mg24933270-800-green-spaces-arent-just-for-nature-they-boost-our-mental-health-too/#ixzz7Hl2t9nyv>

<sup>78</sup> Barton, J., Hine, R., & Pretty, J. (2009). *The health benefits of walking in greenspaces of high natural and heritage value*. *Journal of Integrative Environmental Sciences*, 6(4) pp 261 - 278.

<sup>79</sup> Rogerson, M., Brown, D., Sandercock, G., Wooller, J.-J., & Barton, J. (2016). *A comparison of four typical green exercise environments and prediction of psychological health outcomes*. *Perspectives in Public Health*, 136(3) pp 171-180; Barton, J., & Pretty, J. (2010). *What is the best dose of nature and green exercise for improving mental health? A multi-study analysis*. *Environmental Science and Technology*, 44 pp 3947-3955.

<sup>80</sup> Brown, D., Barton, J., & Gladwell, V. (2013). *Viewing Nature Scenes Positively Affects Recovery of Autonomic Function Following Acute-Mental Stress*. *Environmental Science and Technology*, 47(11) pp 5562 - 5569.

<sup>81</sup> <https://analytics.phe.gov.uk/apps/covid-19-indirect-effects/>

## Covid-19 Pandemic

The Covid-19 pandemic, beginning around February 2020, and the associated restrictions placed on society resulted in many more people visiting greenspaces and the outdoors.

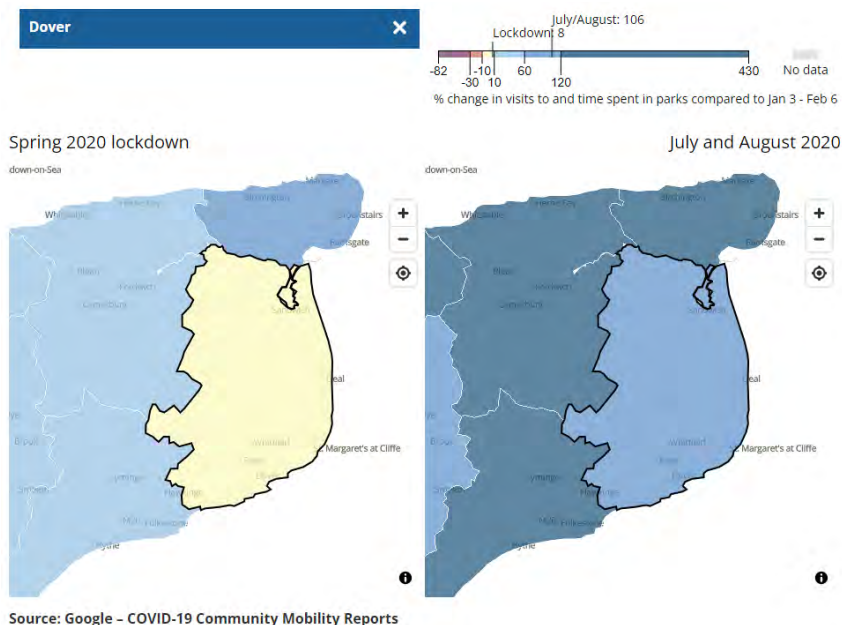
During the spring lockdown in 2020 there was a small increase (8%) in time spent in Dover's parks compared to January to February 2020 (see right).<sup>82</sup> However, when lockdown restrictions eased, there was an increase of 106%. This trend was witnessed in other parts of the country where tourism visits are important. While use of parks fell in rural and coastal areas during the first lockdown compared with immediately pre-pandemic levels, there was a substantial rise in the summer, at least partly driven

by domestic tourism. This increase in visitors was reported anecdotally by several of the land managing organisations in the district who reported significant increases in visitors during 2020.<sup>83</sup> At times, this increase caused difficulties in managing the spaces.

During the lockdowns, isolation, along with other factors, contributed to a decline in mental health. However, access to greenspace and the countryside supported people's mental health. There is evidence that the natural environment has helped some people to cope with negative feelings such as increased anxiety. Around 9 in 10 people surveyed by Natural England in May 2020 agreed that natural spaces are good for mental health and wellbeing. More than 40% noticed that nature, wildlife, and visiting local green and natural spaces have been even more important to their wellbeing since the coronavirus restrictions began. Green and outdoor spaces also appear to have played an important role in becoming a space which allowed people to see their loved ones during periods of isolation.

However, not everyone has equal access to the greenspace and there is a clear connection between how people have been using the outdoors under coronavirus restrictions and the distance between greenspaces and their doorstep. In lockdown, those living closer to their nearest public greenspace were more likely to visit than those living further away. In the summer, when movement restrictions began to ease, the opposite was true, with people living further away from their nearest greenspace more likely to visit than those living closer. High-income households increased the time they spent keeping fit during lockdown, while low-income households did not.

Figure 4: Visiting Open Spaces During 2020 Covid-19 Pandemic



<sup>82</sup> Information in this section from

<https://www.ons.gov.uk/economy/environmentalaccounts/articles/howhaslockdownchangedourrelationshipwithnature/2021-04-26>

<sup>83</sup> Pers. comm with several land managers at Sandwich Bay, Samphire Hoe, National Trust White Cliffs.



Some of the interest in nature recorded in spring and summer 2020 waned during winter 2020 / 2021, although this might be due to colder weather. It is possible that those most likely to maintain increased exercise and visits to greenspaces are those whose circumstances most allow them to, such as those whose workplaces decide to offer homeworking permanently.

The pandemic has underlined the importance of outdoor space for physical exercise and mental health. It has also highlighted that existing inequalities in provision and differences in levels of visiting greenspace in different socio-economic groups persisted through the pandemic. Those groups less likely to visit greenspaces (lower income groups), or those who lived further away, continued to visit these spaces less than other more advantaged groups.

## Dover's Health

### Health in Summary

The health of people in Dover is varied compared with the England average. There are some areas of very good health, but also areas where health is poor. Life expectancy is slightly lower than the England average.

### Health Inequalities

Life expectancy at birth for both males and females is slightly below the regional average. Inequality in life expectancy at birth<sup>84</sup> is 6.8 years for men and 4.3 years for women.

### Child health

In Year 6, 20.8% of children are classified as obese. About 19.4% (3,715) children live in low income families.

### Adult health

Estimated levels of excess weight in adults (aged 18+) are worse than the England average. The percentage of adults classified as overweight or obese is getting significantly worse in Dover compared to the last period.

Figure 5: Life Expectancy and under 75s Mortality Rate in Dover District compared to the South East Region<sup>85</sup>

Indicator	Period	Recent Trend	Dover		Region England			England	
			Count	Value	Value	Value	Worst	Range	Best
Life expectancy at birth (Male)	2018 - 20	-	-	79.5	80.6	79.4	74.1		84.7
Life expectancy at birth (Female)	2018 - 20	-	-	82.8	84.1	83.1	79.0		87.9
Under 75 mortality rate from all causes	2018 - 20	-	1,260	338.4	293.9	336.5	570.7		220.1
Under 75 mortality rate from all cardiovascular diseases	2017 - 19	-	234	63.2	57.1	70.4	121.6		39.8
Under 75 mortality rate from cancer	2017 - 19	-	503	133.9	121.6	129.2	182.4		87.4

In 2014 the South East Coast Health and Wellbeing Board published its 'Health and Wellbeing Strategy' this stated that in Dover, only 4 out of 21 wards were over the Kent average life expectancy. The wards with the lowest life expectancy at birth in the Dover district were Tower Hamlets, Lydden and Temple Ewell, Aylesham, Middle Deal, Town and Pier, Buckland and Castle.

<sup>84</sup> The measure of how much life expectancy varies with deprivation

<sup>85</sup> Accessed 12 January 2022. <https://fingertips.phe.org.uk/profile/health-profiles/data#page/1/gid/1938132701/pat/6/par/E12000008/ati/201/are/E07000108/iid/90366/age/1/sex/1/cat/-1/ctp/-1/yr/3/cid/4/tbm/1/page-options/car-do-0/fip/0>

The wards with the poorest life expectancy at age 65 were: Aylesham, Whitfield, Middle Deal and Sholden, Tower Hamlets, Little Stour and Ashstone, Lydden and Temple Ewell.<sup>86</sup> When benchmarked against the South East, Dover shows that the under 75 mortality rate from respiratory disease considered preventable is also worse.

The number of physically active people is slightly lower, but comparable with the England average.

Figure 6 - Physical Inactivity in Dover compared to the England<sup>87</sup>

Indicator	Period	Dover			England		Best
		Count	Value	Value	Worst	Range	
Percentage of physically active adults	2019/20	-	68.7%	66.4%	49.4%		80.2%
Percentage of physically inactive adults	2019/20	-	21.8%	22.9%	35.2%		11.4%
Percentage of physically active children and young people	2020/21	-	44.5%	44.6%	-	Insufficient number of values for a spine chart	-
Percentage of adults walking for travel at least three days per week	2019/20	-	11.5%	15.1%	6.5%		33.4%
Percentage of adults cycling for travel at least three days per week	2019/20	-	1.1%	2.3%	0.0%		20.9%

The indices of deprivation Health Deprivation and Disability Domain measures the risk of premature death and the impairment of quality of life through poor physical or mental health. The domain measures morbidity, disability and premature mortality but not aspects of behaviour or environment that may be predictive of future health deprivation. Plan 30 shows levels health deprivation across Dover district.

<sup>86</sup> South East Coast Health and Wellbeing Board – Health and Wellbeing Strategy 2014, page 9.

<sup>87</sup> Accessed 12 January 2022. <https://fingertips.phe.org.uk/physical-activity#page/1/gid/1938132899/pat/15/ati/401/are/E07000108/iid/93014/age/298/sex/4/cat/-1/ctp/-1/yr/1/cid/4/tbm/1>



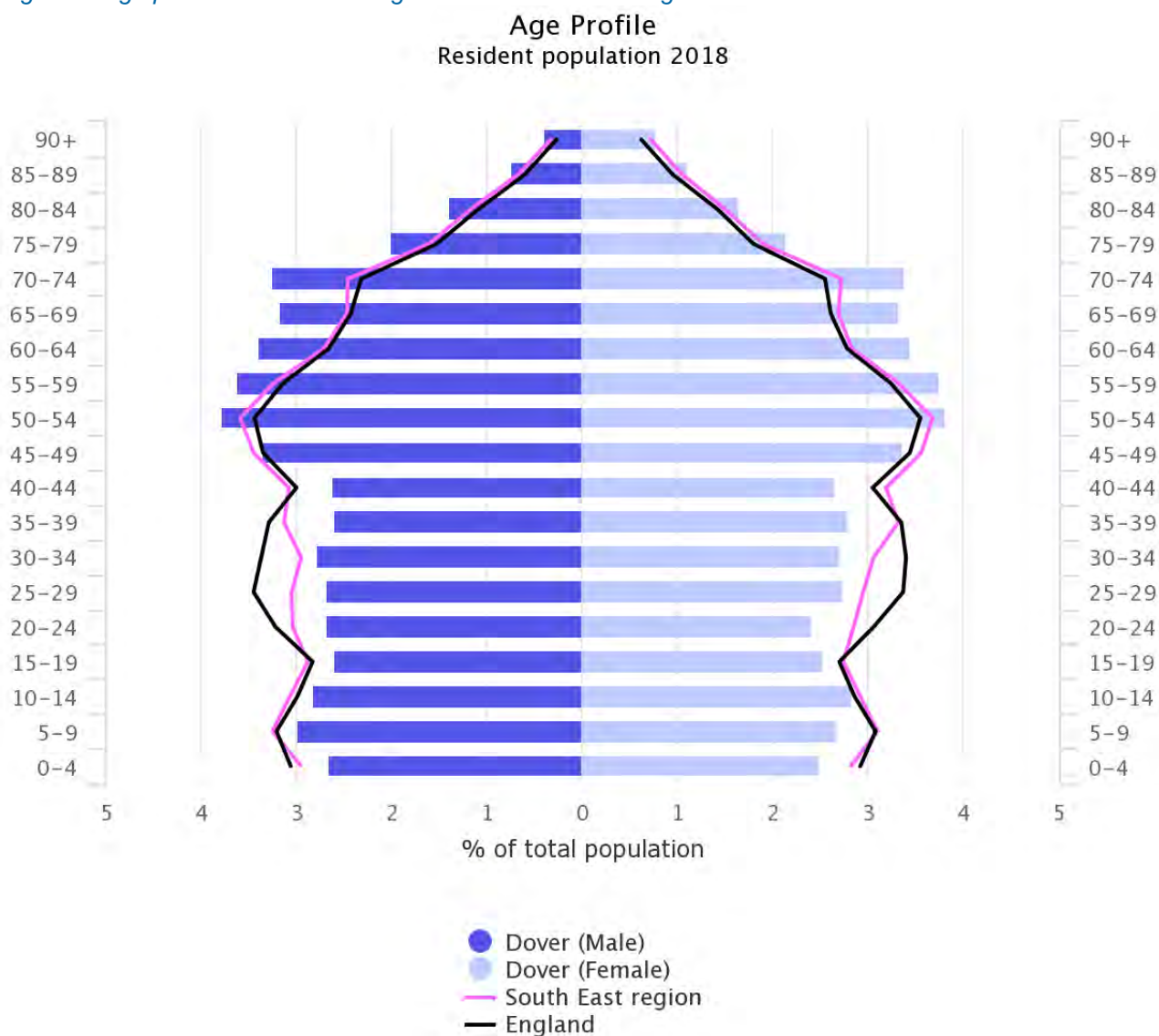


## Age

Understanding the sociodemographic profile of an area is important when planning services. Different population groups may have different health and social care needs and are likely to interact with services in different ways. The number of older people (aged 60+ years) in the Dover district is increasing and the average age is higher than the Kent and Medway average in many parts of the district, see Plan 31.<sup>88</sup>

Figure 7 shows that Dover has a greater percentage of older residents than in other parts of the South East region. It also shows the percentage of residents under 40 is less than England and the South East region. This can have an impact on a green and blue infrastructure strategy in that it highlights the need for a specific type of greenspace and how people use them. Walkable neighbourhoods and urban green and blue infrastructure might be more important when a population is older than average.

Figure 7: Age profile in Dover vs. England and South East England



<sup>88</sup> Leadership Support Team, Dover District Council, State of the District 2017



## Air Quality in Dover District

Air pollution is associated with several adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and some cancers. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those pre-disposed to heart and lung conditions. There is also often a strong correlation with equalities and social issues because areas with poor air quality are also often the less affluent areas.

Dover is ‘the gateway to England’ and its location at the narrowest crossing point in the English Channel has always given it great significance for both trade and military activities. Dover is the district’s principal town; the major employment centre, an international gateway and a transport hub. In addition to Dover, Deal and Sandwich are the other main towns within the district.

The main sources of pollutant emissions within Dover are linked with port activities; regular cross-channel ships and large volumes of road traffic arising as a result of associated transport of good along the A2 and A20 entering and leaving the town.<sup>89</sup>

There are currently two Air Quality Management Areas (AQMAs) declared within the district. Both have been designated due to exceedances of the annual mean Air Quality Strategy (AQS) objective for nitrogen dioxide (NO<sub>2</sub>), caused primarily by road traffic emissions. These are:

- The A20 AQMA, declared in 2004 (and amended in 2007 and 2009); and
- The High Street/Ladywell AQMA, declared in 2007.

In 2018, dispersion modelling was carried out for both AQMAs to establish whether any changes in the extent of AQMA boundary were needed. The results concluded that the exceedances of the annual mean NO<sub>2</sub> objective were still evident within both AQMAs. In addition, there were also areas outside of the existing AQMAs where exceedances were predicted. These include the areas along High Street towards Victoria Crescent and east towards Ladywell, and properties along Marine Parade. However, during 2020, there were no exceedances of the relevant annual mean objective for either NO<sub>2</sub> or PM<sub>10</sub> across Dover for the first time since the AQMAs were declared. This is likely due to a decrease in road traffic as a result of Covid-19 restrictions.<sup>90</sup>

For the emerging Local Plan an Air Quality Assessment has been undertaken.<sup>91</sup> The Assessment examined the exposure of existing residential and ecological receptors, alongside new Local Plan originated development receptors, to concentrations of nitrogen dioxide (NO<sub>2</sub>), particulate matter (PM<sub>10</sub>), CO<sub>2</sub> and nitrogen (as NO<sub>x</sub>). This concluded that the implementation of the Local Plan is not predicted to significantly impact air quality or increase the number of sensitive receptors which are exposed to poor air quality, provided recommended mitigation measures are followed. Policy NE4 covers air quality.

A package of measures to improve air pollution within the district are to be identified in the forthcoming update of the Air Quality Action Plan (AQAP).

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<sup>89</sup> Dover District Council LAQM Annual Status Report 2019.

<sup>90</sup> Bureau Veritas. (September 2021). *Dover District Council Air Quality Annual Status Report (ASR)*.

<sup>91</sup> Bureau Veritas. (January 2021). *Dover District Council Local Plan Air Quality Inputs – Dispersion Modelling Assessment*.



## The Need and Priorities for Health and Wellbeing Initiatives in Dover

The health of people in Dover is varied compared with the England average and there are significant existing health inequalities in more deprived areas. Cardiovascular, musculoskeletal and obesity issues are particularly high in some areas of the district.

There are many opportunities for taking healthy walks and other activities in the district. These are published and promoted by a wide range of organisations, including Dover District Council but these are sometimes poorly coordinated. Leisure and tourism walking cycling and volunteering are well publicised on the White Cliffs Countryside website ([www.whitecliffscountry.org.uk](http://www.whitecliffscountry.org.uk)) however, some of these activities focus disproportionately on the coast, adding pressure on the natural environment in those areas. Leaflets with maps describing routes may also be problematic for some sectors of the population. Healthy walks are published by the NHS and Walking for Health, but these can be hard to find, and require following many links to access information.



Figure 8: Leaflet on Healthy Walks in Dover

It would be beneficial to understand the barriers to pursuing active lifestyles by some sectors of the population.

The following should also be considered:

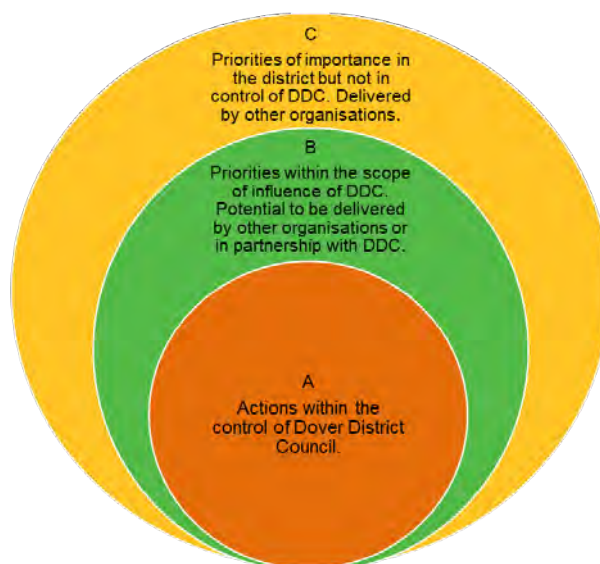
- Improving access to the Public Rights of Way and promoted routes, improving surfaces and removal of styles
- Coordinating information on active lifestyles, development of Phone Apps that negate the need for maps
- Creation of new promoted routes and circular routes near areas with new development to access the countryside and natural environment.
- Improving the urban/rural transition of walks and routes to the countryside
- Promoting routes away from the coast and routes which avoid steep gradients
- Improving walking and cycling routes in the urban areas.

See also the section on Active Travel.

## Needs, Opportunities and Priorities

Below is a summary of the needs, opportunities and priorities for the health and wellbeing theme. As set out in the introduction to this strategy, this strategy identifies priorities and needs, not all of which are within the direct control of the council, or which can be delivered by the council alone.

### Health and Wellbeing Needs, Opportunities and Priorities



	Strategic Priorities and Opportunities	Delivery
<b>1</b>	<b>Support physical activity and access to nature and increase access to greenspaces for mental and physical health and wellbeing.</b>	
1.1	Improve access to public rights of way and existing promoted routes, improve accessibility through better surfacing and removal of stiles to make them more accessible to a wider range of people.	C
1.2	Improve the accessibility and facilities of the public realm, parks and greenspaces for those with mobility impairments and other disabilities.	B
1.3	Co-ordinate and improve information on active lifestyles and using greenspaces and public rights of way for improving health.	B
1.4	Make it easier and safer to choose active travel for everyday journeys through installing cycle and walking routes for commuting and utility trips and promote these routes.	B
1.5	Provide information on accessibility to greenspaces so that those with mobility impairments or other disabilities feel confident to access more spaces, routes and parks.	B
1.6	Improve the quality of greenspaces so that they are more attractive to people and people want to visit them.	B
1.7	Use the interest and increased visitation generated through the Covid-19 pandemic to provide more information to people on where they can visit and how to visit responsibly.	B
1.8	Create safe streets and public realm to increase access and make them more attractive.	B
1.9	Create new promoted routes and circular routes near areas with new development to access the countryside and natural environment so that new populations can actively enjoy the outdoors.	C
1.10	Improve the urban/rural interface and routes to the countryside Improving accessibility of urban edge routes, e.g. removing stiles, installing handrails, improve surface.	C
1.11	Ensure new development includes good quality and well-managed greenspaces, sports and play facilities to cater for the increase in population.	A
1.12	Ensure there is sufficient provision of outdoor sports and play spaces and increase nature and tree cover in these where possible.	B

	<b>Strategic Priorities and Opportunities</b>	<b>Delivery</b>
1.13	Improve access to nature and greenspace to improve mental health and raise awareness of mental health benefits.	B
1.14	Increase social prescribing.	C
1.15	Expand tree planting in private gardens, in public spaces, in parks, in schools and in new developments to provide shading to offset increased climate change impacts and a more pleasing environment.	B
1.16	Incorporate outdoor learning into school activities.	C
1.17	Create more spaces to support community growing – allotment facilities, gardens, edible trails and green walls and educate and support residents in utilising these. Food growing also helps to encourage healthy eating and better weight management.	B
<b>2</b>	<b>Improve air quality in the Dover town area.</b>	
2.1	Encourage more sustainable forms of transport to aid air quality in the Dover town area.	B
2.2	Improving walking and cycling routes in the urban areas, ideally through green and traffic-free routes.	B
2.3	Improve the public realm with green and blue infrastructure improvements to make it easier and more attractive for people to walk and cycle.	B



# Landscape Character and Heritage

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## Landscape Character

Landscape character is an important underpinning element of green and blue infrastructure planning, with particular relevance to planning the characteristics of new green infrastructure. Green infrastructure in new development needs to take account of the landscape character of the surrounding area.

## Landscape Designations

About 21% of the district is designated as part of the Kent Downs Area of Outstanding Natural Beauty (AONB) and 3% of the district is designated as Heritage Coast, centred on the chalk cliffs either side of Dover. Both designations recognise the national landscape significance of these areas. These designations are shown in Plan 32.

## Landscape Character Assessments

### Natural England – National Character Assessment

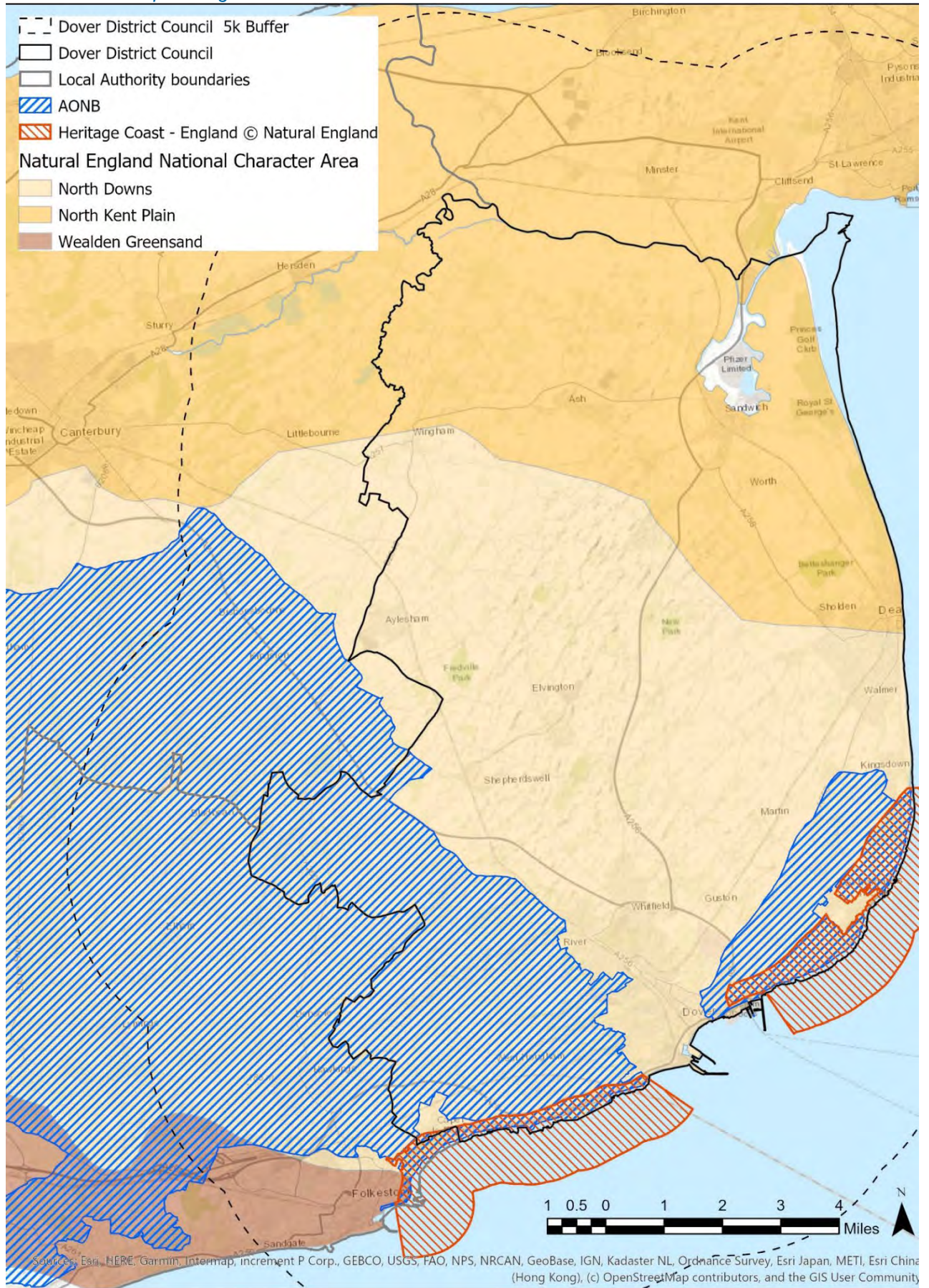
Natural England set out National Character Assessment Areas (NCAs). There are two NCAs in the district – the North Kent Plain and the North Downs, see Plan 32. The NCA profiles set out Statements of Environmental Opportunity (SEO).

#### North Downs (NCA 119)

The North Downs NCA forms the chain of chalk hills from Surrey to the White Cliffs of Dover. It is a landscape of small villages and scattered farms; of sunken lanes and ancient drove roads. Agriculture is important and there are many ancient woodlands in the landscape. Development pressure and urban-edge pressure are forces for change in this NCA. The character profile recommends:

- High quality and well-managed green and blue infrastructure both within and surrounding the NCA to help to meet the needs of a growing population, a changing climate and increased pressures on natural resources;
- The creation of more resilient ecological networks across the agricultural landscape.

Plan 32: Landscape Designations and National Character Areas





The SEOs are listed below, along with opportunities relevant to this green and blue infrastructure strategy.

*SEO 1: Manage, conserve and enhance the distinctive rural character and historic environment of the North Downs, including the long-established settlement pattern, ancient routeways and traditional buildings. Protect the tranquillity of the landscape and sensitively manage, promote and celebrate the area's rich cultural and natural heritage, famous landmarks and views for future generations.*

- Improve the management of historic parklands and habitats such as veteran and ancient trees, ancient woodland and species-rich grassland;
- Conserve and manage ancient trackways, including the North Downs Way, establish high quality interconnecting routes and increase benefits for biodiversity, health and local businesses;
- Minimise the impact of new developments, including visual intrusion, disturbance and noise; and maximise the benefits of green and blue infrastructure planning;
- Improve awareness and maximise the potential of historic, cultural and natural sites, such as the White Cliffs of Dover, whilst managing the impact of increased visitor numbers of sensitive sites.

*SEO 2: Protect, enhance and restore active management to the diverse range of woodlands and trees of the North Downs, for their internationally and nationally important habitats and species, cultural heritage and recreational value and to help to deliver climate change mitigation and adaptation. Seek opportunities to establish local markets for timber and biomass to support the active management of local woods, while recognising the contribution to sense of place, sense of history and tranquillity.*

- Support woodland management;
- Expand the urban tree resource;
- Link semi-natural woodland across the landscape and create new woodland where this fits with the landscape character;
- Conserve ancient and veteran trees.

*SEO 3: Manage and enhance the productive mixed farming landscape of the North Downs and the mosaic of semi-natural habitats including the internationally important chalk grassland. Promote sustainable agricultural practices to benefit soils, water resources, climate regulation, biodiversity, geodiversity and landscape character while maintaining food provision.*

- Restore and strengthen a connected landscape of areas of chalk downland, hedgerows, hay meadows, heath and acid grassland, roadside verges, field margins and woodlands;
- Manage and restore chalk grassland habitats, seeking arable reversion where appropriate;
- Plant new hedgerows to reinforce historic field boundaries;
- Create buffer strips along arable land to reduce soil erosion and run-off into watercourses.



*SEO 4: Plan to deliver integrated, well-managed multi-functional greenspace in existing and developing urban areas, providing social, economic and environmental benefits and reinforcing landscape character and local distinctiveness, particularly on or alongside the boundaries of the designated landscapes within the North Downs.*

- Create high-quality, well-managed accessible natural greenspace within and surrounding urban areas as part of a green and blue infrastructure strategy;
- Improve water quality through reducing pollution from run-off and limiting leakage;
- Create new wetlands through sustainable drainage systems and reedbeds to filter pollutants;
- Carry out targeted planting of woodland and trees around existing and new development;
- Involve the community in projects;
- Develop a strategic approach to green and blue infrastructure across the NCA and its boundaries to take account of existing urban areas and areas of growth.

The two additional opportunities are also relevant to this green and blue infrastructure strategy:

- 1 Conserve and enhance important geological sites and exposures of international importance, inland and along the coastline, including the White Cliffs of Dover, in order to maintain and enhance their geodiversity and biodiversity interest, cultural significance and sense of place.
- 2 Protect the important water resources of the NCA, including the North Downs chalk aquifer, rivers and associated wetlands, to safeguard the quality and quantity of public, private and agricultural water supplies and to bring about benefits for biodiversity, water quality and regulation of flooding.

#### North Kent Plain (NCA 113)

The North Kent Plain is the belt of land between the Thames Estuary to the north and the Kent Downs to the south. It is an area of open, low-lying and gently undulating land. It is very productive agricultural land, with highly fertile soils. This character area covers the northern third of the district, from Wingham and Ash, and includes the coast to Deal.

The SEOs are listed below, along with opportunities relevant to this green and blue infrastructure strategy.

*SEO 1: Maintain the historic character and long tradition of a farmed landscape, creating habitats to establish more resilient and coherent ecological networks within the farmed and peri-urban areas, benefitting biodiversity and geodiversity, and helping to regulate water and soil quality. Protect traditional practices including the longstanding associations of the fruit belt, maintaining a strong sense of place and reinforcing Kent's reputation as the Garden of England.*

- Maintaining and managing traditional orchards
- Restoring hedgerow boundaries especially where they will help to impede cross-land flows within the Stour catchment, to improve water quality and restore traditional field patterns;
- Adopt a landscape-scale approach to strengthening ecological networks;
- Improve surface and groundwater quality;
- Manage ditches to retain historic field boundaries, also supporting biodiversity, including water voles and rare snails.

*SEO 2: Plan for and manage the effects of coastal change, by allowing the operation of natural coastal processes and improving the sustainability of current management practices, to maintain and enhance the local landscape character and the area's biodiversity assets. This can lead to habitat creation, flood-risk reduction to built-up areas, and opportunities for recreational activity.*

- Maintain opportunities for natural regeneration of coastal features within the context of the Shoreline Management Plan;
- Achieve good condition of cliff-top calcareous grassland;
- Identify opportunities to improve coastal access, linking routes with urban centres, historic features and other paths, and identify opportunities for sustainable tourism.

*SEO 3: Protect the distinct wooded areas of the landscape, particularly through the management of nationally important, ancient semi-natural woodlands, increasing the area of broadleaved woodland where appropriate, while increasing the connectivity of the mosaic of associated habitats notably wooded heath and semi-improved grassland while enhancing the recreational resource.*

- Maintain and restore ancient woodland and small farm woodlands;
- Thicken and expand shelterbelts, expanding around development to enhance screening;
- Consider small-scale woodland creation.

*SEO 4: Protect and enhance the strong character and heritage of the urban areas. Plan for the creation of significant new areas of greenspace and green corridors to provide a framework for new and existing development in urban areas and along major transport routes.*

- Create and safeguard multi-functional greenspace within and around towns and new development, to also include sustainable drainage systems.

One of the two additional opportunities are also relevant to this green and blue infrastructure strategy:

- 1 Plan for a landscape-scale restoration of the fragmented wetland landscape of the Stour valley and its tributaries, while further managing the NCA's rivers and other wetland habitats, bringing about multiple benefits including climate regulation, biodiversity and improved water quality.

### Landscape Assessment of Kent (2004)

Kent County Council's Landscape Assessment<sup>92</sup> describes seven character areas wholly or partly within Dover district.

- The Wantsum and Lower Stour Marshes
- East Kent Horticultural Belt
- East Kent Arable Belt
- South Foreland
- Elham: East Kent Downs
- Alkham: East Kent Downs

The report sets out a summary of actions for each character area. The Dover District Landscape Character Assessment (2020) refines and updates this study at the district level.

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<sup>92</sup> Kent County Council. (2004). *The Landscape Assessment of Kent*. Jacobs Babbie for Kent County Council.

## Dover District Landscape Character Assessment (2020)

This update of Dover district's Landscape Character Assessment covers the area outside the Kent Downs AONB.

### Landscape Character Type A: River Valleys and Marshes

Three landscape character areas (LCAs): Little Stour Marshes (A1), Ash Levels (A2) and Little Stour and Wingham River (A3).

All of these LCA are on the low-lying former Wanstum Channel. The Little Stour Marshes LCA is located along the floodplain of the Little Stour in the north west of the district. The Ash Levels LCA is the far north of the district. These LCAs are characterised by a large, flat and low-lying landscape or arable and grazing land, with many drainage ditches. Tree cover is limited. Access to some areas is also limited. The area has undergone dramatic change, from being part of the Wantsum Channel which separated the Isle of Thanet to a farmed arable and pasture landscape. Natural siltation combined with the formation of mudbanks and human intervention reclaimed the marshland from the seventh century onwards. The Little Stour and Wingham River LCA is the flat, alluvial floodplain of the river valley, which continue to be managed for grazing.

Large areas of these LCAs are designated for their wildlife value or are within Biodiversity Opportunity Areas.

Landscape Management Guidance: River Valleys and Marshes	Little Stour Marshes	Ash Levels	Little Stour and Wingham River
Conserve and enhance the biodiversity interest from wetland habitats and watercourses of the former marshland.	✓	✓	
Manage and enhance the wildlife interest of agricultural fields by encouraging the creation of uncultivated field margins, management of drainage ditches and other wildlife-friendly farming methods.	✓	✓	
Restore and recreate former grazing marsh, fen and reedbed habitat, as part of the wider wetland network in the Lower Stour catchment, as identified in the Lower Stour Wetlands BOA.	✓	✓	
Enhance areas of improved grassland to good quality semi-improved grassland to bring it to priority habitat quality, as identified in the Lower Stour Wetlands BOA.	✓		
Conserve and enhance the biodiversity interest associated with wetland habitats and watercourses and woodland. Where appropriate, restore and recreate former grazing marsh, fen and reedbed habitat, as part of the wider wetland network in the Lower Stour catchment, as identified in the Lower Stour Wetlands BOA.			✓
Enhance areas of improved grassland to bring it to priority habitat quality.			✓



## Landscape Character Type B: Developed River Valley

One landscape character area: Great Stour – Sandwich Corridor (B1).

This area lies to the north of Sandwich along the floodplain corridor of the River Stour as it flows towards Pegwell Bay. It has a developed, industrial character and has been altered by gravel extraction and landfill and is a major transport corridor.

Most of the area is, however, within a Biodiversity Opportunity Area. Some limited areas of arable and pasture remain and there are pockets of coastal grazing marsh. Alongside the river are important areas of coastal saltmarsh and mudflats.

### Landscape Management Guidance: Developed River Valley

Conserve features setting of sites of historic importance within and adjacent to the LCA and seek to reference and interpret these hidden sites within the landscape.

Conserve and enhance the biodiversity interest associated with the wetland habitats and watercourses of the former marshland.

Restore and recreate former grazing marsh, fen and reedbed habitat, as part of the wider wetland network in the Lower Stour catchment, as identified in the Lower Stour Wetlands BOA.

Ensure that landscape work associated with the industrial estates/business park references local landscape character in choice and design of planting schemes and, where possible, use trees and screening to help integrate harsh boundaries with the adjacent natural landscape.

## Landscape Character Type C: Coastal Marshes and Dunes

Two landscape character areas: Sandwich Bay (C1) and Lydden Valley (C2).

These two LCA's lie adjacent to each other. Sandwich Bay (C1) is a distinctive area of flat, low-lying arable land, with very important nature conservation areas. It is a flat landscape of few trees and low-lying salt marsh, mudflats, shingle beach and shallow waters forming a wide sweeping bay that transitions to an open seascape. Three 'links' golf courses operate in this area on the dunes. There is a sense of remoteness in places.

The Lydden Valley immediately to the south, between Sandwich and Deal, is also low-lying coastal land. It is arable and grazing marsh, drained by a complex network of drainage channels. There are pockets of marsh, fen and other high priority wildlife habitats and some small pockets of ancient and wet woodland. Betteshanger Country Park is located on shale deposits from the former Betteshanger colliery and a large area is now the RSPB Lydden Valley Reserve, with a Kent Wildlife Trust Reserve at Ham Fen. The majority of these LCAs are under a nature conservation and are within a Biodiversity Opportunity Area.

Landscape Management Guidance: Coastal Marshes and Dunes	Sandwich Bay	Lydden Valley
Work with natural coastal processes to conserve and enhance the coastal landscape with its distinctive pattern of shingle beach, sand dunes, salt marshes and mudflats.	✓	
Conserve and enhance ecologically important wetland and coastal habitats, in line with current management plans identified in the Lower Stour Wetlands BOA – seeking to extend and connect habitats where feasible.	✓	
Generally coniferous shelterbelts are distinctive and characteristic elements in this coastal landscape and should be retained, although replacement with native deciduous species is also an opportunity.	✓	
Restore historic land patterns of the reclaimed marshes, governed by natural and man-made drainage channels.	✓	
Protect and manage the valued recreational use of the landscape, seeking opportunities to further enhance opportunities for access and enjoyment.	✓	
Enhance the visual characteristics and quality of promoted routes, drawing upon the connections to the historic coastal landing events, including through the preservation and enhancement of vistas towards Pegwell Bay and the beaches around Deal.	✓	
Support proposals to enable the management, conservation and restoration/enhancement of traditional grazing marsh and fen habitats to maximise both landscape and biodiversity benefits.		✓
Support BOA proposals and targets for a new, landscape-scale wetland complex, including fen, reedbed and grazing marsh, in which successional processes are allowed to proceed.		✓
Conserve the traditional field pattern of dykes and ditches and traditional grazing marsh character of small, grazed fields balancing this with wetland creation projects.		✓
Conserve and manage the wet woodlands and allow for some natural regeneration of woodland to provide connectivity between existing small blocks.		✓

#### Landscape Character Type D: Horticultural Belt

Three landscape character areas: Preston (D1), Ash (D2) and Staple Farmlands (D3).

The Preston Horticultural Belt is a largely flat and gently rolling landscape with a mix of agricultural land uses including orchards, vineyards and arable, with many glasshouses and polytunnels. There are scattered farmsteads and small villages. There is moderate tree cover, with some woodlands plus characteristic tree windbreaks. It is a fairly intensively farmed area on fertile soils, with a rural character.

The Ash Settled Horticultural Belt has a gradually sloping landform with a distinctive ridge, on which the settlements of Ash and Woodnesborough are located. It is high quality agricultural land supporting a wide range of farmed land uses. There is moderate tree cover, with more woodland on the ridge. The adjacent Staple Farmlands is also undulating, high quality farmland supporting a wide variety of crops, but is distinct from the Ash Settled Horticultural Belt due to its intact rural

character. As with the other LCAs, there is some tree cover and low levels of ecological habitats due to the intensity of the farmed landscape, although part of the area is covered by a Biodiversity Opportunity Area.

Landscape Management Guidance: Horticultural Belt	Preston	Ash	Staple Farmlands
Manage and enhance the wildlife interest of agricultural fields by encouraging the creation of uncultivated field margins and other wildlife-friendly farming methods.	✓	✓	✓
Increase the extent of native deciduous woodland/tree cover, particularly around settlements, using locally occurring species, to link with small deciduous woodlands, copses, and hedgerows.	✓	✓	
Conserve the traditional pattern and structure of the landscape by improving the continuity of hedgerow to enhance the rectilinear field pattern. Enhance and augment fragmented field boundary hedgerows with native species, filling gaps where possible.	✓		
Conserve, and manage the narrow valley seepages that drain to the marshes – encouraging reversion to pasture along watercourses.	✓		
Seek to encourage the traditional farming practice of top fruit production / and maintain restore traditional orchards.	✓		
Protect the valued recreational use of the landscape (PRoW), seeking opportunities to further enhance opportunities for informal access and enjoyment through well maintained linked routes through farmland.	✓	✓	✓
Enhance and augment fragmented field boundary hedgerows with native species, filling gaps where possible, and reinstating hedges and hedgerow trees where appropriate.		✓	
Conserve the local distinctiveness of historic buildings and their rural setting, including within the Conservation Areas in Ash and Worth.		✓	
Improve boundary treatments with the use of native hedgerows to help filter views of urban fringe uses.		✓	
Encourage retention and conservation of remaining traditional orchards.		✓	
Conserve and improve the traditional landscape pattern and structure of the landscape, as well as increasing biodiversity interest through the establishment and maintenance of hedgerows and hedgerow trees along field boundaries, particularly around Durlock, Flemings and Barnsole.			✓
Explore opportunities for creation of floodplain grazing marsh along the upper Wingham River valley to increase the coverage of biodiversity interest, as part of the Lower Stour Wetlands LCA.			✓
Conserve traditional orchards for their historic and biodiversity value.			✓



## Landscape Character Type E: Open Arable Chalk Farmland with Parkland

Two landscape character areas: Shepherdswell Aylesham Parklands (E1) and Whitfield Parkland (E2).

The Shepherdswell Aylesham Parklands is an undulating landscape of gentle ridges and valleys. There are numerous deciduous woodlands, many of them ancient, in the form of parkland belts, clumps and copses. There are historic parklands, with associated historic buildings, woodlands and parkland trees. This is also a formerly an area of coal mining.

The Whitfield Parkland LCA is also an undulating landscape, characterised by large-scale open arable farmland, intensively farmed for cereals, with some pasture and woodlands associated with parks. There are some large woodland blocks, some of them ancient, and tree shelter belts. The historic parkland at Waldershare estate retains mature trees and avenues.

Landscape Management Guidance: Open Arable Chalk Farmland with Parkland	Shepherdswell Aylesham Parklands	Whitfield Parkland
Manage and enhance the wildlife interest of arable fields by encouraging the creation of uncultivated field margins and other wildlife-friendly farming methods and consider opportunities for reversion of some areas to grazed grassland.	✓	✓
Conserve and improve the traditional landscape pattern and structure, as well as increasing biodiversity interest through the maintenance of hedgerows.	✓	✓
Enhance and augment fragmented field boundary hedgerows with native species, replacing post and wire fencing where possible	✓	
Protect and enhance the valued semi-natural habitats including ancient woodland and deciduous woodland and conserve and enhance the wooded character of the area through appropriate woodland management.	✓	✓
Increase the extent of native deciduous woodland, using locally occurring native species in order to link to existing woodland. Seek to avoid the introduction of coniferous boundaries/shelterbelts except where part of the estate character.	✓	
Conserve and reinforce the parkland character around Goodnestone, Knowlton and Fredville, putting in place a programme of new parkland tree planting where appropriate.	✓	
Conserve and reinforce the parkland character of Waldershare estate putting in place a programme of new parkland tree planting where appropriate.		✓
Seek to create extensive new areas of woodland cover, with large new block and swathes of woodland, with a potential for large scale creation to double the existing cover. The key opportunity for woodland is in relation to proposed urban expansion at Whitfield.		✓

## Landscape Character Type F: Open Arable Chalk Farmland with Woodland

Three landscape character areas: Chillenden (F1), Northbourne (F2) and Ripple (F3).

The Chillenden LCA is a rural chalk landscape with a gently rolling topography, with woodland blocks and parkland estates. There are many small woodlands, some ancient, and a mixed field pattern of mainly arable fields. There are limited settlements and a rural and tranquil feel.

The Northbourne LCA is a rolling landscape of large arable fields with numerous small blocks and belts of deciduous and coniferous woodland. There are historic parklands at Betteshanger and Northbourne. There are links to the former coal mining activity of the east Kent Coalfield.

Ripple LCA is also a large-scale arable landscape on chalk soils, intensively farmed for arable with expansive views. In contrast to the other LCAs there are relatively few trees. A short stretch of coast at Walmer between the Kent Downs AONB and Deal is nationally and locally designated.

Landscape Management Guidance: Open Arable Chalk Farmland with Woodland	Chillenden	Northbourne	Ripple
Manage and enhance the wildlife interest of agricultural fields by encouraging the creation of uncultivated field margins and other wildlife-friendly farming methods.	✓	✓	✓
Conserve and improve the traditional landscape pattern and structure, as well as increasing biodiversity interest through the maintenance and restoration of hedgerows.	✓	✓	
Enhance and augment fragmented field boundary hedgerows with native species, replacing post and wire fencing where possible.	✓	✓	
Protect and enhance the landscape's valued semi-natural habitats including ancient woodland and deciduous woodland and wetlands associated with Wingham Valley.	✓		
Conserve and enhance the existing wooded character of the area through appropriate woodland management.	✓	✓	
Increase the extent of native deciduous woodland, using locally occurring native species in order to connect existing isolated woodland blocks, including linear belt and copses and reinstatement and thickening of hedgerows Seek to avoid the introduction of coniferous boundaries/shelterbelts.	✓	✓	
Conserve and reinforce the parkland/estate character around Tilmanstone, Betteshanger and Northbourne, putting in place a programme of new parkland/avenue tree planting where appropriate.		✓	
Improve the quality of existing boundaries and restore hedgerows with native species to strengthen connectivity and the traditional landscape pattern and structure.			
Enhance the visual appearance of horse paddocks and conserve the sense of scale by avoiding further subdivision of fields.			
Protect archaeological sites and promote public awareness and access where possible.			
Protect the naturalness of the coastal landscape, conserving and enhancing important cliff and intertidal habitats and encouraging reversion to chalk grassland where feasible.			

## Landscape Character Type G: Chalk Hills

Two landscape character areas: Lydden Hills (G1) and Guston Hills (D2).

The Lydden Hills LCA is steeply sloping chalk ridge at the edge of the Kent Downs AONB north of Dover offering expansive views. The internationally important nature conservation site of Lydden and Temple Ewell Downs SAC forms much of this LCA and there are extensive areas of important nature conservation habitat. There is mainly pasture with some arable.

The Guston Hills LCA is located on the outskirts of Dover. It is a small area of varying topography, with mainly arable farming, but also some important nature conservation habitats, including chalk grassland. Fort Burgoyne (Scheduled Monument) is a 19th century fortification of national importance. This area is an important landscape setting for Dover town, as well for Fort Burgoyne and the adjacent Dover Castle and Kent Downs AONB.

Landscape Management Guidance: Chalk Hills	Lydden Hills	Guston Hills
Conserve and enhance the chalk grassland habitat in line with current management plans and the Dover and Folkestone cliffs and Downs BOA – seeking to restore, extend and connect habitats where feasible.	✓	
Seek to enhance the visual appearance of grassland managed as horse paddocks.	✓	
Seek to prevent further loss or decline in the quality of boundary hedgerows and encourage restoration/reinstatement of hedgerows, particularly those that link to the scarp bottom woodland clumps and existing wooded areas.	✓	
Conserve and perpetuate local landscape features including the pine clumps.	✓	
Consider limited opportunities for woodland creation for example integration of roads along the A256 and Lydden Hill and potentially for new woodland belts on arable land along the A2 to provide a woodland and chalk scrub buffer between the road and downland, plus re-establishment, thickening of hedges, copse and tree belts on the arable fields north west of Lydden village.	✓	
Enhance and augment fragmented field boundary hedgerows with native species, filling in gaps where possible.		✓
Conserve the traditional pattern and structure of the landscape by improving the continuity of hedgerows to enhance the wavy rectilinear field pattern noted in the Kent HLC.		✓
Explore opportunities for chalk or neutral grassland creation on areas of steeply sloping ground to the south to increase the coverage of biodiversity interest, as identified in the Dover & Folkestone BOA.		✓
Conserve and reinforce the wooded character of the area to the south and south-east through appropriate woodland management, as identified in the Dover and Folkestone BOA.		✓
Conserve and reinforce the parkland character to the south (i.e. Connaught Park, Danes Recreational Ground, and Charlton and St James's Cemeteries), putting in place a programme of new parkland tree planting where appropriate.		✓
Enhance the visual characteristics and quality of the Roman Road approach from the north (i.e. along the White Cliffs Country Trail and the North Downs Way PRow), drawing upon its historic connections, including through the preservation of vistas towards Dover.		✓



## Landscape Character Type H: Defensive Hills

One landscape character area: Richborough Bluff (H1).

This small LCA encompasses the distinctive knoll of higher ground sitting above the marshes of the Wantsum Channel. A former island in the Wantsum Channel, the LCA is an important historic Roman and Saxon site, strategically located on high ground at a main entry point to Britain. There are small arable and pasture fields. The Roman fort is a popular visitor attraction.

### Landscape Management Guidance: Defensive Hills

Manage and enhance the wildlife interest of agricultural fields by encouraging the creation of uncultivated field margins, management of drainage ditches and other wildlife-friendly farming methods.

Enhance areas of improved grassland to bring it to priority habitat quality.

Enhance and augment fragmented field boundary hedgerows with native species.

## [Kent Downs AONB Landscape Character Assessment 2021 \(unpublished\)](#)

The Landscape Character Assessment for the Kent Downs AONB has been updated and consulted on but at the time of this report is not published.

The Kent Downs AONB assessment has two character areas within Dover district: the East Kent Downs (Landscape Character Area 1C) and the White Cliffs and Coast. Mapping of the character areas is not available at the time of this report.

### East Kent Downs

There are two local character areas within Dover district: Alkham and Elham.

### **Aspirational Landscape Strategy for East Kent Downs Landscape Character Area**

The LCA retains its strongly rural character, which is conserved and enhanced. Any visual and landscape impacts from surrounding urban areas, main roads and new developments are kept to a minimum through high quality design and careful land management. Development within the LCA is at a scale and of a quality that does not detract from, and seeks to conserve and enhance, the character and qualities of the area. Local communities, Planning Authorities and other agencies work together to achieve this. Rural lanes retain their historic character and are not unduly influenced by signage, kerbs or other urbanising features.

Local farms are thriving, and where farms are diversifying (for example into or vine growing) this is being done in a way which conserves and enhances the landscape. Farmland management promotes wildlife and landscape enhancements through the provision and linking of habitats, and the positive management of landscape features. Woodland, forestry and grassland areas are in active sustainable management, and are interconnected.

The area's rich heritage is celebrated and looked after, and local people are aware of the history and importance of their local landscape.

This is a remote, peaceful area of downland. The scarp slope is furrowed by long, narrow, parallel dry valleys. These valleys give rise to nailbournes, streams and rivers which only flow at the surface occasionally during very wet winters. Water management is a challenge due to lack of surface water. Hill-top plateaux are covered with heavy clay-flint soils. The area is crossed with sunken lanes, many of which are ancient. There is mixed, agriculture with some orchards and increasingly new diversified farming including vineyards. There are some woodlands, frequently on the valley sides. Several of these are ancient and of high conservation value. They are increasingly affected by ash dieback. Hedges are also of nature conservation value.

- Protect – historic sites and non-designated heritage features, small-scale isolated pattern and rural character of settlements, the isolated nature of farmstead, skylines, trees and woodlands, open views and tranquillity;
- Manage – trees and woodland, replace dead ash with alternative species, manage hedgerows and shaws, enhance ecological connectivity across agricultural landscapes, conserve and enhance chalk grassland, promote best practice in regard to equine management, manage public rights of way ensuring robust enough to accommodate higher use and provide new paths (e.g. dog walking routes) near new development;
- Plan – enhance landscape around recreational facilities to integrate into landscape, provide best practice for planting vines, guidance to ensure views from character area are accounted for in development proposals, consider extensive woodland planting on plateaux and ridge tops to address future climate change, work with Local Planning Authorities to achieve the best possible landscape and ecological integration and lowest impact on views.

### White Cliffs Coast

There are two local character areas within Dover district: Folkestone Cliffs and The Warren and South Foreland.

#### **Aspirational Landscape Strategy for White Cliffs Coast Landscape Character Area**

The landscape characteristics of expansiveness, relative lack of settlement and generally open horizons are retained. The area's rich military archaeology is understood, celebrated and managed. Landmarks such as Dover Castle, South Foreland Lighthouse, the Dover Patrol Memorial, the Battle of Britain Memorial and the radio masts remain focal points in the landscape and seascape, and St Margaret's at Cliffe village retains its special character.

The ecological value of the landscape is enhanced, with an extensive and linked network of chalk grassland in good condition. Cliff and shoreline habitats are also considered, recognising the constantly-changing nature of these environments. Recreation is well-managed so that people are able to enjoy and experience the landscape without damaging it.

This area includes two heritage coasts; the Dover-Folkestone Heritage Coast and the South Foreland Heritage Coast. This landscape character area includes the famous landmark of the White Cliffs of Dover. There are long associations with defence of the realm with a military and maritime heritage. The White Cliffs and the Warren are very popular areas for recreation. These areas are characterised by exposed cliff-top fields, exposed chalk cliffs and a scarcity of trees and hedges.

- Protect – open horizons, the many layers of archaeological heritage, views, the distinctive character of St Margaret’s at Cliffe Conservation Area and the naturalness, drama and remoteness of the coastal landscape;
- Manage – agricultural land to enhance biodiversity and connectivity, maintain the existing hedgerow network, manage and expand cliff-top grassland, conserve pockets of scrub and trees, limit impact of equestrian land use, manage and extend the public rights of way network;
- Plan – long-term strategies to disperse visitor pressure and retain coastal access following loss of cliffs to erosion, promote partnership working, develop Heritage Coast Management Plans, consider a land assembly approach to enable integrated management of this nationally important landscape, increase biodiversity of roadside verges, work with Local Planning Authorities to achieve the best possible landscape and ecological integration and lowest impact on views.

## Dover Strait Seascape Character Assessment

The Dover Strait Seascape Character Assessment (2015) covers marine, intertidal and coastal zones. This characterises the Dover district coast into nine distinct Seascape Character Areas. The valued seascape attributes for these areas are listed below.

### Chalk Cliffs and Reefs / Coastal Waters

- C1A: Kingsdown Chalk Cliffs
- C1B: St Margaret’s Bay
- C1C: White Cliffs of Dover
- C1D: Shakespeare and Abbot’s Cliffs

Dramatic, visually prominent sheer white cliffs which are popular and well-recognised tourism destinations. Cliff top habitats of chalk downland, grassland and scrub. Chalk character continuing offshore in the seabed, and in ledges, boulders and gullies. Historical associations with coastal defence, particularly the Second World War. Sections with high levels of tranquillity and remoteness, with long uninterrupted views across the Strait.

### Greensand Cliffs and Reefs / Coastal Waters

- C2A: East Wear Bay and The Warren

Unique area of Gault clay and Greensand Cliffs in the Dover Strait at Copt Point headland running west to Sandgate, with chalk / marly chalk and clay. The only area of harder coastal intertidal and subtidal rock in Kent supporting species of algae not found elsewhere in Kent. Rich and diverse marine ecosystem of chalk reefs, ledges and gullies forming part of the Marine Conservation Zone. Fossil-rich exposures of Folkestone Beds and Gault representing the single most important locality in England for studying sedimentology and stratigraphy of these formations. Internationally significant prehistoric settlement and trading site. Other important archaeological sites including from Iron Age the Second World War on the cliffs with archaeological material on the foreshore. Large scale bay accessible for recreation providing valued resource of tranquillity and sense of wildlife in this part of the Dover Strait.



## Ports, Harbours and Seafront Development

- C3A: Dover Port, Harbour and Historic Defences

Ports and harbours with a long strategic importance for trade and defence. Busy seascapes with large numbers of ship and boat movements, including both passenger and cargo traffic. Frequent historic buildings and structure associated with past defensive and military activities, forming key local landscapes.

## Shingle Beaches and Coastal Waters

- C4B: Deal Seafront and Deal Bank

Important coastal and foreshore shingle habitats designated for their biodiversity interest. A low-lying, defenced coastline with Martello Towers and Henry VIII's trio of castles at Deal, Sandown and Walmer. Valued fishing heritage with small boats drawn up on the shingle beaches, plus importance for commercial fishing. Cultural heritage associated with the Cinque Ports. Busy, recreational coastline with historic town of Deal and seaside / holiday development. Large scale open seascape with wide vistas along the coastline and out across the Strait and views inland through gaps in a bult up sea front.

## Tidal Estuaries and Flats

- C5A: Sandwich and Pegwell Bays

A complex mosaic of internationally important habitats, including intertidal mudflats, salt marsh, shingle beach and dunes. Internationally important populations of migratory and over-wintering waders and wildfowl. Varied seascape valued for a range of land, coast and water-based recreational activities. Strong historic associations with early settlers, trade and defence. A dynamic and every-changing seascape with a strong sense of naturalness.

## Inshore Bays

- I1A: Sandwich and Pegwell Bays

Inshore traffic zone plus valued area for recreational sailing and other water based activities. Important fishers sustaining small Kent and larger French fishing fleets, including shellfish. Relatively quiet areas of inshore seas adjacent to main offshore shipping lanes. High biodiversity value recognised through marine designations – marine habitats of international importance.

# Heritage

## Introduction

Dover district has an outstanding wealth of historic sites spanning from the prehistoric period to the present day. The district's location at the south east tip of England brings a strategic significance which is reflected in its heritage. In times of peace the district has been the gateway to Britain; an important route for trade and travel. In wartime, the district has become the frontline, with the English Channel acting as a defensive barrier, with the iconic White Cliffs of Dover acting as a symbolic and actual defensive barrier to Britain.

The archaeology and heritage of the district is exceptionally varied and extensive. This rich heritage contributes to local distinctiveness and has played an important role in shaping the character of the district.

## Heritage Assets in Dover District

The term heritage assets includes all sorts of features - buildings, parks and gardens, standing and buried remains, areas, sites and landscapes. Some heritage assets are designated due to their significance. A summary of heritage assets in Dover district is shown to the right<sup>93</sup> and listed buildings, scheduled monuments, nationally registered parks and gardens. There are also conservation areas, of which there are 57 in the district. These assets are shown in Plan 33.

### Registered Parks and Gardens

Registered parks and gardens are of particular relevance to this strategy as green infrastructure and landscape heritage assets. There are five registered parks and gardens within Dover district, with an additional park, Broome Park, situated on the border with Canterbury district.

- **Goodnestone Park** – Grade II\*. Located to the south of Goodnestone village, Goodnestone Park is a largely 19<sup>th</sup> Century formal garden within an 18<sup>th</sup> Century park. The park extends around the perimeter of the house (also named Goodnestone Park);
- **Waldershare Park** – Grade II. Located to the north east of Coldred, Waldershare Park is a 18<sup>th</sup> Century parkland. Most of the park is now cropped, although some areas remain as grassland. Some scattered parkland trees remain;
- **Northbourne Court** – Grade II\*. Located to the east of Northbourne, Northbourne Park is a 19<sup>th</sup> Century park with an earlier 16<sup>th</sup> or 17<sup>th</sup> Century walled garden. Most of the park is grazed, with one area under arable cultivation. There are clumps and individual trees of a range of ages;

Designated Heritage Assets	
Scheduled Monuments	50
Listed Buildings	1926
Conservation Areas	57
Registered Parks and Gardens	6
Protected Wreck Sites	1
Locally designated Heritage Assets	
Historic Parks and Gardens	21
Non-designated Heritage Assets	
Standing Buildings	772
Belowground Archaeology	9845
Maritime Features (excludes offshore wrecks)	33
Aircraft Crash Sites	0

Table quantifying designated and non-designated heritage assets recorded in the Kent Historic Environment Record (as of April 2020)

<sup>93</sup> Kent County Council. (2020). *Dover District Heritage Strategy*.

- Walmer Castle – Grade II. The registered park is the 19<sup>th</sup> Century parkland and formal and ornamental garden associated with Walmer Castle;
- Kearsney Court – Grade II. Located in Temple Ewell at the northern edge of Dover town, Kearsney Court was laid out around 1900 by Thomas Mawson, a leading landscape designer of the early 20<sup>th</sup> Century. It was designed to provide a setting for a new residence. The terraced gardens, kitchen garden and park-like grounds created a park ‘in miniature’;
- Broome Park – Grade II. Although this park is within Canterbury district it is located on the boundary with Dover. It is a landscape park of 16<sup>th</sup> Century origin surrounding a country house of the 1630’s. A park surrounds the mansion and pleasure grounds. The southern park remains as pasture and the northern part is a golf course.

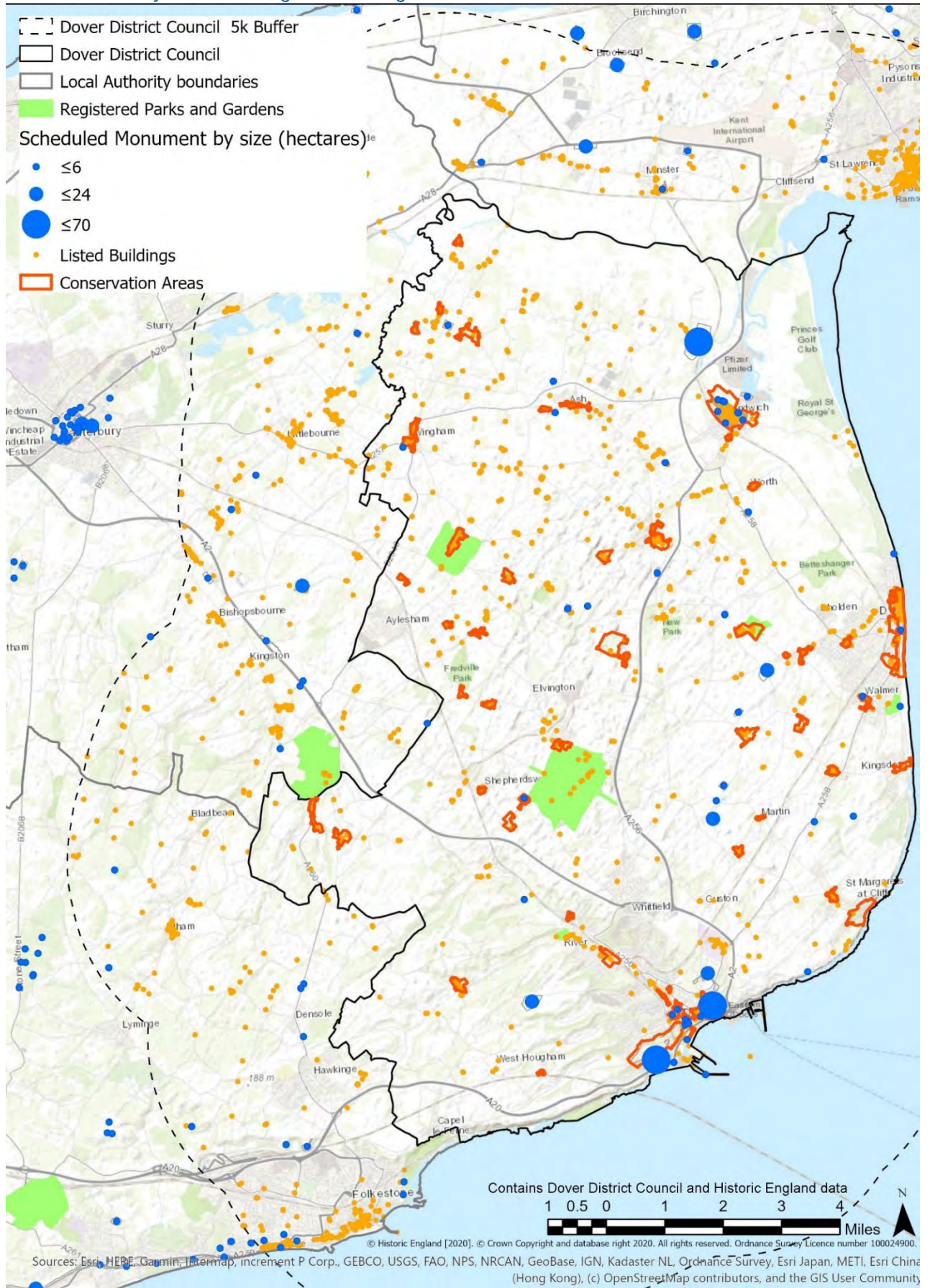
## Scheduled Monuments

There are 50 Scheduled Monuments in Dover district. These include a wide range of heritage features. Some of the larger Scheduled Monuments include:

- Western Heights – The monument includes the remains of a Roman lighthouse, field terraces and a medieval chapel subsequently surrounded by 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> century defensive works, all situated on a prominent chalk ridge known as the Western Heights which overlooks the town of Dover;
- Richborough Roman Fort and Port – This 40 hectare site includes Iron Age, Roman and medieval archaeology. The Saxon Shore Fort is a Listed Grade I building. Saxon Shore forts were constructed in the third century AD to provide protection against sea-borne Saxon raiders and are only located in South East England;
- Dover Castle - The monument includes Dover Castle, a medieval royal castle built within the presumed defences of a univallate Iron Age hillfort, a Roman lighthouse, and a Saxon settlement and church. The monument also includes a series of tunnels beneath the castle built between the 13<sup>th</sup> and 20<sup>th</sup> centuries and a 16<sup>th</sup> century gun battery called Moat's Bulwark at the base of the cliff. The remains of the castle and the lighthouse are Listed Grade I;
- St Radegund's Abbey, Poulton – The remains of a late 12<sup>th</sup> Century/13<sup>th</sup> Century abbey. The monument also includes earthworks and below ground remains;
- Great Mongeham Anglo-Saxon Cemetery – The burials of the cemetery are visible as crop marks. There are also enclosures surviving as buried archaeological remains;
- Fort Burgoyne – Fort Burgoyne is one of a set of Royal Commission fortifications, established through the 1859 Royal Commission Report, which represent the largest maritime defence programme since the initiative of Henry VIII in 1539-40. There were eventually some 70 forts and batteries in England which were due wholly or in part to the Royal Commission. Fort Burgoyne survives as a good example of these forts;
- Sections of the Sandwich Town Walls and the Fisher Gate - Sandwich was unusual among English towns in respect of the size of its 15<sup>th</sup> century fortification programme. Murage (the right to build walls) was granted for seven years in 1405 and again, for the same duration in 1412. The Fisher Gate is also Listed Grade I and is one of only two remaining medieval town gates in Sandwich.



Plan 33: Summary of some Designated Heritage Assets



## Important Aspects of Dover's Heritage

### The Coast

There are exceptional coastal landscapes in the district. The White Cliffs of Dover are recognised worldwide and are of outstanding historical and cultural significance.

Access to the coast for trade has also shaped the district's heritage. Sandwich and Stonar<sup>94</sup> are important examples of medieval coastal ports. Now a quiet sea-side town, Deal was once among the most important naval ports in the country. Dover itself, owing its existence to the valley through the formidable chalk cliffs carved by the River Dour, has been the landing place for maritime travel since prehistoric times. The town has grown due to its location at the shortest crossing point of the English Channel, from a major port of entry in the Roman period to the busy ferry port today.

The Dover Straits and seas around Dover district are some of the busiest in the world. This, along with the area being the site of numerous conflicts, mean that there are an immense number of shipwrecks off the coast of the district.

### Defensive Heritage

Due to its location Dover district is on the frontline of defence. There are several important medieval defence structures. Dover Castle was one of the most powerful medieval castles in England and is an outstanding example of medieval defensive architecture. In addition to Dover Castle, the three castles of Deal, Walmer and Sandown are outstanding examples dating from the reign of Henry VIII.

There are also later defences and fortifications. These include the defence structures at Western Heights in Dover, which are the largest and most elaborate surviving examples of nineteenth century fortifications in England. Dover and Deal were major garrison towns, with barrack buildings dating between the eighteenth and twentieth centuries.

During the First World War Dover harbour was an important naval base and port of refuge. At Richborough a shipping facility and port was built to supply the battlefields of Europe. Later, during the Second World War the area around Dover was nicknamed 'Hell-fire Corner' as the area was on the frontline of the war. The district therefore has a wealth of defensive structures and heritage dating from this time. After the Second World War, during the Cold War, the district played its part again, with radar stations, underground bunkers, nuclear-fallout monitoring posts and secret underground command centres, including the Regional Seat of Government for the South East buried deep in tunnels under Dover Castle.

### Travel and Communication

The proximity of Dover to continental Europe has meant that it has long been the entrance point to England. The Romans created major roads connecting the coastal ports with Canterbury and beyond to London, now expanded into the bustling commercial hub of today. The main road to Dover became a major route for pilgrims and travellers. The coming of the railways in 1844 and the subsequent expansion of the network improved transport of goods and people. Louis Blériot's first powered flight across the channel landed near Dover in 1909 and later, airfields were established to support conflict efforts.

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<sup>94</sup> Now only surviving as archaeological remains.

The district is the location of lighthouses, including the only Roman examples in the country, and the South Foreland Lighthouse, which has associations with Marconi and Faraday. The Deal Timeball Tower was a semaphore tower and was one of a chain of telegraph stations between the Admiralty in London and the naval yard at Deal.

### Country Houses and Farmsteads

There are several country houses and estates in the rich agricultural chalk downland part of the district. Many of the have medieval origins and some are connected to leading architects or have other connections, for example to the novelist Jane Austin. Several of these houses retain their fine parkland, with six on the national register of parks and gardens. The medieval courts and manors have helped to shape the landscape.

The historic farmsteads of the district have also shaped the landscape character and local distinctiveness and contribute to a rich and varied array of rural buildings.

### Industry

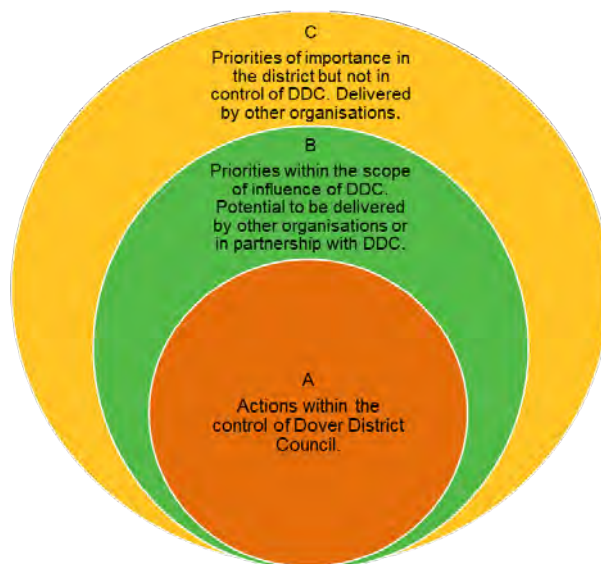
The east Kent coalfield developed from the late nineteenth century. It was an intensive period of industry and has left its mark on the settlements and communities of east Kent, which retain a distinctive character.

The River Dour has also been the site of industry, providing power and water along its banks. Industry such as corn mills, paper mills and breweries used the natural assets of the river. Whilst these industries have now gone, their legacy remains in the form of historic mill buildings, mill races and other aspects of water management structures along the length of the river.



## Needs, Opportunities and Priorities

Below is a summary of the needs, opportunities and priorities for the landscape character and heritage theme. As set out in the introduction to this strategy, this strategy identifies priorities and needs, not all of which are within the direct control of the council, or which can be delivered by the council alone. The White Cliffs Countryside Partnership offers opportunities to deliver many of these actions including working in partnership with other landowners and community engagement.



### Landscape Character and Heritage Needs, Opportunities and Priorities

	Strategic Priorities and Opportunities	Delivery
<b>1</b>	<b>Strengthen and reinforce landscape character and ensure green and blue infrastructure enhances and fits with local landscape character.</b>	
1.1	Manage woodland, aiming for a linked network of woodland, shaws and hedgerows, and replace dead ash with alternative species as appropriate. Restore characteristic landscape features such as hedgerows and woodlands. Ensure new tree establishment associated with climate mitigation respects and enhances landscape character and qualities.	B
1.2	Protect and enhance the landscape and views in the Kent Downs AONB, support the co-ordinated management of the landscape and habitats, promote wildlife value, enable and manage access for recreation, with reference to the Kent Downs AONB management plan and landscape character assessment.	B
1.3	Strengthen and reinforce natural features like watercourses as accessible green corridors linking built up areas with the wider countryside.	B
1.4	Develop strategies for partnership working to enhance the landscape, for example for woodland and farmland management.	B
1.5	Strengthen and reinforce landscape structure in the urban–rural fringe areas. Ensure that the edges of new and existing urban and rural settlements blend comfortably with the surrounding countryside.	B
1.6	Protect water resources, wetland habits, fen and reedbed, chalk grassland, traditional orchards and other heritage landscape features	B
1.7	Ensure that new development recognises landscape character in proposals and seeks to conserve and enhance landscape features and, where development is within the Kent Downs AONB, have particular regard to the natural beauty of protected landscape.	A
1.8	Conserve and reinforce the parkland character of the historic parks and gardens of the district.	C
1.9	Protect the naturalness and landscape character of the districts unique and varied coastal landscapes.	B

	Strategic Priorities and Opportunities	Delivery
<b>2</b>	<b>Ensure heritage is recognised in green and blue infrastructure planning, interpretation, and tourism.</b>	
2.1	Promote and enhance cultural heritage assets.	B
2.2	Improve accessibility of cultural heritage sites through sustainable transport links and enhanced interpretation (where appropriate) and community engagement.	B
2.3	Identify heritage and local distinctiveness which can be used to guide future development.	A
2.4	Identify and protect important viewpoints of heritage assets and ensure that the historic natural environment is respected and interpreted through new development.	B
2.5	Ensure heritage is recognised in green and blue infrastructure planning, interpretation, and tourism.	B
2.6	Protect archaeological sites and promote public awareness, and access where possible.	B

# Spatial Priorities

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## Introduction

The district has been divided into the following areas and are considered in more detail:

- Dover town;
- Deal and Walmer;
- Aylesham;
- Sandwich;
- Larger rural villages.

More information on the green and blue infrastructure assets, needs, opportunities and priorities is set out in this section.

## Dover Town

Dover town is the largest town in Dover district. It is characterised by its White Cliffs, proximity to the European mainland at the narrowest section of the English Channel, and its busy port - England's busiest cruise port, Europe's busiest international ferry port, and a major port for freight.<sup>95</sup>

The central valley that runs through Dover, formed by the River Dour, and the associated ridges that surround the town, have heavily influenced the way housing, transport infrastructure, business and industry have developed in the town, with quite distinct urban areas. The higher ridges around the town have in a rich military heritage: Roman and Napoleonic forts, and defence structures from both World Wars. The famous Dover Castle that overlooks the port is a popular tourist attraction.

Green infrastructure in Dover town is shown in Plan 34 and blue infrastructure in Plan 38.

## Access and Recreation

The access and recreation resource for Dover town is shown in Plan 35.

Three parks and gardens are within the Dover town area. There are some gaps in provision within 15 minutes walking time to these but it is likely that this need is served to some extent by other forms of greenspace.<sup>96</sup>

There is an opportunity to improve links and accessibility through and around Connaught Park from new development and improve the park facilities generally.

There are good connections to promotional routes that radiate from Dover town centre and the port – The North Downs Way, The Saxon Shore Way, The Coast to Cathedral cycle route and the Sandwich to Rye Cycle Route.

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<sup>95</sup> Sustrans. (April 2020). *Dover District Audits –Dover*, page 1.

<sup>96</sup> Knight, Kavanagh and Page Ltd. (2019). *Dover District Council Draft Open Space and Play Standards Paper* and Knight, Kavanagh and Page Ltd. (2019). *Dover District Council Open Space Assessment Report*.



Some public rights of way link the town to the surrounding countryside. CRoW Act open access land surrounds the town. However, although access is permitted, the sites may not be managed to enable access. This may create a barrier to those who do not regularly use the countryside.

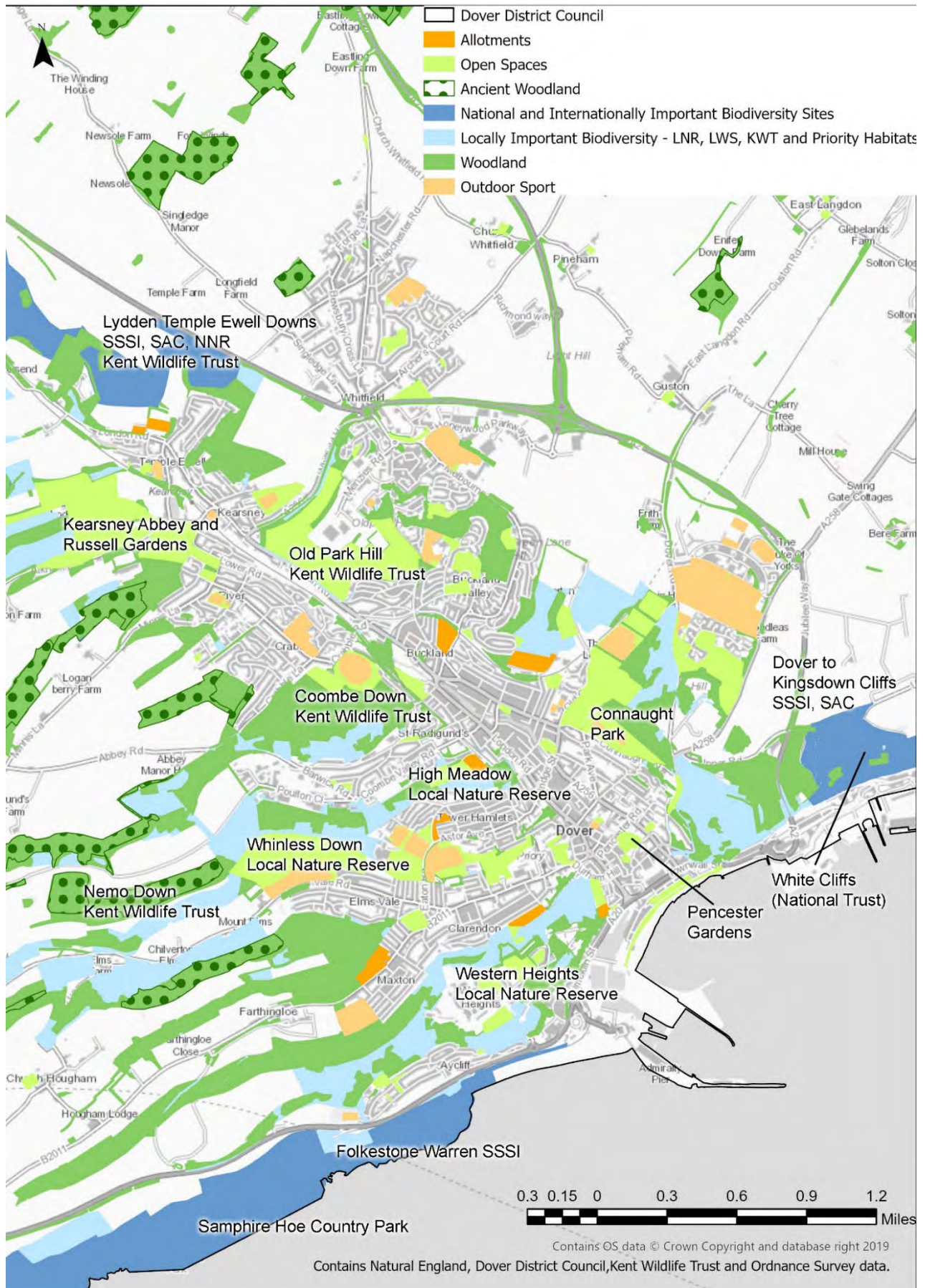
## Active Travel

There are high levels of traffic, along the A20 to the port and travelling in 30mph zones in residential areas across the town, along with a general lack of traffic calming and lack of traffic restrictions on residential streets. There is a lack of dedicated cycling and walking routes to key destinations including schools, employment centres, and local amenities. The quality of access for pedestrians can be poor, caused by narrow footways, poor surfacing condition, wide junctions with large crossing distances and a lack of formal crossings.<sup>97</sup> Significant gradients between the town centre and train station and surrounding neighbourhoods are also a deterrent to active travel.

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<sup>97</sup> Sustrans. (April 2020). *Dover District Audits – Dover*, page 1

Plan 34: Dover Town - Green Infrastructure









There are several existing signed cycle routes (including National Cycle Network routes NCN 1 and NCN 2). The existing routes offer opportunities for enhancing the walking and cycling network in and around the town, as well as connections to other areas of the district.

The district's economic growth strategy for tourism and the visitor economy sets out that supporting and investing in cycling and walking infrastructure is important to 'improve connectivity and accessibility and encourage 'greener' and more sustainable transportation'.

The Dover Walking and Cycling Audit by Sustrans<sup>98</sup> makes a number of recommendations, such as reducing traffic speed and introducing traffic calming methods, introducing safe crossing routes along with removing cycle and walking barriers and improvements in surfacing. It is important to ensure that new developments are permeable for walking and cycling, link to local sustainable transport networks, and support car-free lifestyles.

Travel to stations and public transport from new residential areas are also important. Where possible these should make use of existing green and blue infrastructure by networking cycle and pedestrian routes. There is an opportunity to use areas of development (particularly from Whitfield) to improve off road cycle ways that encourage active travel and make use of greenspaces along the route.

## Health and Wellbeing

Dover town centre has some of the poorest health outcomes in the district. One of the highest concentrations of relative deprivation is in the town centre. Lydden and Temple Ewell and St Radigunds have the lowest life expectancy in the district. The prevalence of adult obesity in Town and Pier Ward is one of the highest in the district.<sup>99</sup>

More understanding about why and how people use (or do not use) accessible greenspace and the countryside in these areas needs to be undertaken. It may be an issue of confidence or a lack of good access and promotion or there might be other factors at work. A better knowledge of the barriers to access and use would help to provide the right interventions.

## Biodiversity

Dover town's biodiversity assets are shown in Plan 36.

Dover town has outstanding biodiversity. Chalk grassland, a Kent Biodiversity Plan habitat, extends into the outskirts of the town in the hills and valleys of the Kent Downs. It is quite unique in Kent to have so much rich biodiversity habitat, much of which is also accessible, wrapped around the urban area.

Some of this habitat is under agri-environment schemes to ensure it is managed for nature conservation, but many areas are not. The chalk grassland which is not in management is being reduced through the encroachment of scrub. Management is hindered by lack of resources, multiple landowners and urban-edge effects which can inhibit management (e.g. anti-social behaviour can limit grazing by cattle).

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<sup>98</sup> Sustrans. (April 2020). *Dover District Audits – Dover*, page 2

<sup>99</sup> Dover District Council. (2017). *State of the District – Health and Wellbeing*.

There are also woodlands in the hills and valleys to the west of Dover town, some of which are ancient. These woodlands are under threat from ash dieback. This has the potential to affect significantly both biodiversity and landscape.

The River Dour is an important chalk river. The quality of this river has been reduced over many years through past industrial use, artificial channelling, culverting and undergrounding and installation of structures which block fish passage. Although progress in tackling these issues has been made, a co-ordinated approach and policy is required for the river to reach its full potential as a biodiversity-rich centrepiece of Dover.

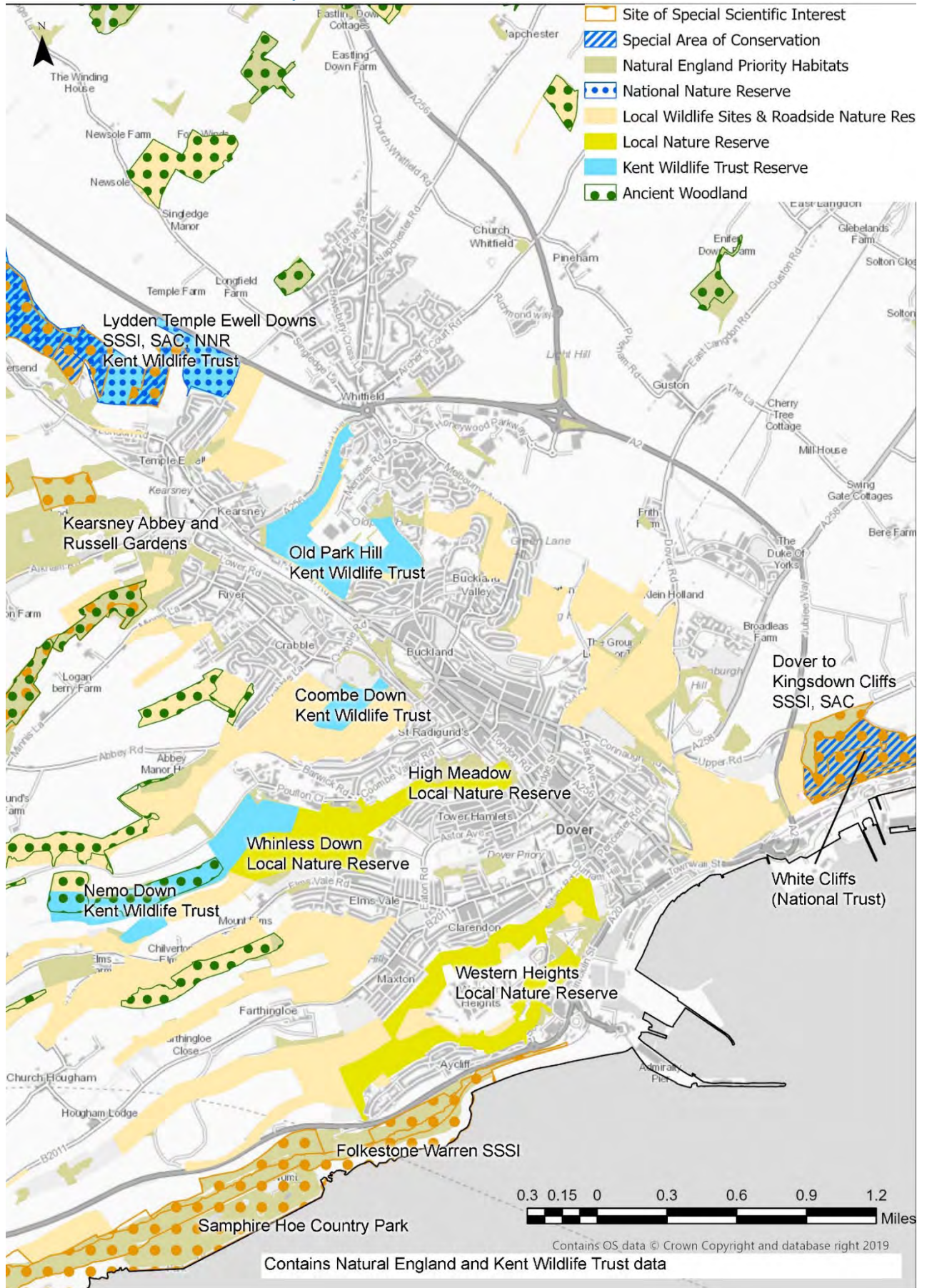
The Biodiversity Opportunity Area (BOA) follows the urban edge of Dover town, see Plan 37. This reflects the high biodiversity value of sites all around the urban area. There is a need to retain connectivity across this urban edge, especially where development is planned within or near the BOA.

The southern part of Dover town is within a 'B-Line' and there are opportunities for urban gardeners to create habitats for pollinator species. This could also extend to urban parks, amenity spaces and roadside verges.

## Water

The River Dour can be a 'flashy' river; responding quickly to rainfall events. Although there is a narrow flood zone alongside the river, this widens to the south, particularly from Dour Street to Castle Street, including the site of the Technical College and Pencester Gardens. Surface water flooding here, and in other areas, can be an issue. This can be a particularly problematic where there are older houses with basements. There may be opportunities to manage flooding in the southern area of Dover through reconfiguration of the river channels. The planned development in the town centre will take account of this. This should also incorporate improved biodiversity and access. Surface water and flood zone 3 are shown in Plan 38.

Plan 36: Dover Town – Biodiversity



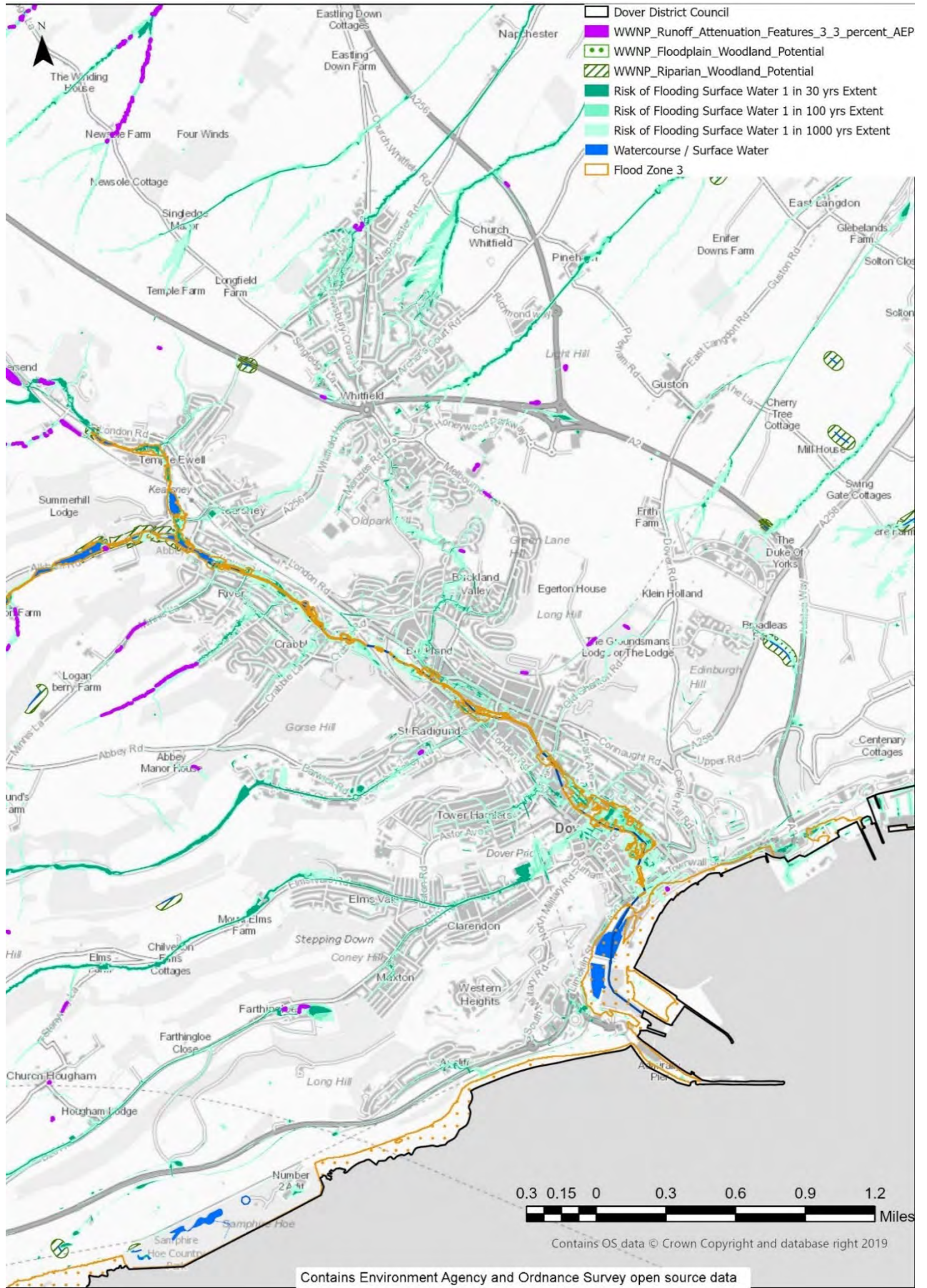


Plan 37: Dover Town - Biodiversity Opportunity Area





Plan 38: Dover Town - Waterbodies and Flood Risk



## Needs, Opportunities and Priorities – Dover Town

### 1 **Protect, conserve and improve the nature conservation and access value of the unique resource of exceptional habitats surrounding Dover Town.**

The hills and valleys around Dover town are a stronghold for chalk grassland. However, the biodiversity value of these sites are, in some areas, being diminished due to lack of management. A priority must be to manage this resource to protect the chalk grassland and biodiversity and to strengthen connections between the sites. This will require partnership working and a good understanding of the issues and barriers to managing these sites. This area is also a very important area for public access and the largest area of accessible land for Down Town. However, in some places there are levels of anti-social behaviour and areas where access infrastructure could be improved. Priorities include:

- Understanding current ownership and management of areas of biodiversity habitat;
- Prioritise biodiversity management of areas within Dover District Council ownership;
- Take forward the legacy of Up on the Downs Landscape Partnership Scheme;
- Draw up a co-ordinated plan to assess and set out needs, opportunities and actions needed for both biodiversity and access;
- Consider designating Local Nature Reserves;
- Utilise biodiversity net gain to improve these areas where possible;
- Improve access and management – improve public rights of way and improve access infrastructure;
- Develop a tree and woodland strategy for the district, including a detailed appraisal of needs and threats in the area of Dover Town, including street trees and woodlands and the threat of ash dieback.

### 2 **Improve the biodiversity and access resource of the River Dour.**

The River Dour is a biodiversity action plan habitat and also a heritage feature. It is also the main blue-green wildlife corridor through the town. There are low levels of accessible greenspace in the valley at the centre of Dover Town, and it is difficult to retrofit into this tightly packed urban area. There is potential to improve access along this corridor. Historic use and development has diminished the river through channelling, weirs and culverts. Multiple agencies having an interest and multiple riparian owners means that actions are fragmented. Priorities include:

- Plan strategically to produce a vision and plan to improve the river, setting out barriers that need to be overcome and setting a roadmap for improving biodiversity and access;
- Draw partners together to implement improvements;
- All development next to or near the river provides<sup>100</sup> an opportunity to improve the river. Access should be incorporated where possible;
- Raise awareness of the value of the river, its habitats and heritage, continuing the work started through the Finest Dour project;
- Pencester Gardens also opportunity for biodiversity as well as flood management.

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<sup>100</sup> For example this is already being pursued in Mid Town and Pencester gardens.



### 3 Improve the provision of green infrastructure in the town centre.

The historic town in the valley is a tightly packed urban area, into which it is difficult to retro-fit green infrastructure. However, there are opportunities for small-scale green infrastructure improvements. Dover has low tree canopy cover and is within a priority area for the Urban Tree Challenge Fund. Gardens, open spaces and 'rough' patches of land can also help form connections through the town where there is less greenspace. The railway lines also form green corridors. Widespread greening and wildflowers on greenspaces and verges. Priorities include:

- Public realm improvements should add green to the urban area. This will help with encouraging walking and cycling and climate change resilience (suds, shade) and air quality;
- Incorporate strong blue and green infrastructure improvements into the Market Square proposals;
- New development around the River Dour affords the opportunity to create new open space.
- Incorporate street trees into the urban fabric;
- To green the streets Consider micro-green infrastructure, seating area, micro parks and seasonal green infrastructure installations where space is limited;
- Seek opportunities for pedestrianised areas to include opportunities for SuDS and rain gardens to improve surface water drainage and provide shade.
- Wildlife and wildflower verges;
- Wildlife gardening in private gardens;
- Work with railway network to maintain wildlife corridors formed by railway tracks.

### 4 Create better access connections, for health, recreation, tourism and active travel.

- Active travel opportunities, particularly from new development areas should be sought;
- and there is an opportunity to improve links and accessibility through and around Connaught Park from new development and improve the park generally.
- New pedestrianised areas should include opportunities for SuDS and rain gardens to improve surface water drainage and provide shade;
- Improve walks and cycle route connections to the countryside and to open spaces;<sup>101</sup>
- Improve access to greenspaces surrounding the town, through improving the linking public rights of way and other routes.

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<sup>101</sup> Blackwood Bayne Ltd. (October 2019). *Dover Green Infrastructure Strategy – Workshops with Practitioners, Parishes and Town Councils and Survey Responses*, page 57.

## Deal and Walmer

Deal is a former fishing, mining and garrison town. Deal became one of the 'Cinque Ports' in 1278; a historic group of coastal ports in Kent, Sussex and Essex (including Sandwich and Dover). Towards the end of the 13th century it developed into one of the busiest ports in England. The waters along Deal's coastline are naturally sheltered, due to the town's proximity to a large sandbar, named 'Goodwin Sands'. This enabled the town to develop into a significant port for transit and trade; and is still used by international and regional shipping.

Henry VIII built three castles in the town. The two that remain are Deal Castle, with its distinctive 'Tudor Rose' shape, and Walmer Castle, which is now an elegant stately home with gardens.

Deal's maritime history includes several visits from Lord Nelson and Lady Hamilton. It is also famed for James Cook's arrival in 1771, returning from his first voyage to Australia. In 1861, a Royal Marines Depot was established in the town.

Deal is now a popular seaside resort, known for its picturesque seafront, shingle beaches and winding streets full of colourful buildings and historical monuments. In 1968, Middle Street was the first Conservation Area in Kent.<sup>102</sup>

Deal is described as one of the character towns in the tourism strategy "*Deal is an attractive, timeless and historically important seaside town with a rich heritage of smuggling and seafaring*".<sup>103</sup>

Green infrastructure in Deal and Walmer is shown in Plan 39 and blue infrastructure in Plan 43.

### Access and Recreation

The Dover open spaces assessment found that most sites were of a good standard, although quality of some open spaces and play areas need to be improved. There are few greenspaces in the Upper Deal/Mill Hill area so access to the countryside is important here.

Victoria Park is Deal's main park. It has sports pitches, play area, skate park, multi-use games area and park area, as well as 'Tides' Leisure Centre. There is potential to improve green infrastructure, tree cover and biodiversity interest. Betteshanger Country Park is a hub for a range of outdoor recreation and leisure activities. The park could also help to attract visitors away from sensitive coastal areas.

Access along the coast in Deal/Walmer is excellent. It has good surfaces on the level and is very attractive. It gives good access to nature and significantly adds to the tourism offer. The England Coastal Path and National Cycle Route 1 also run along this area. The flat terrain and good network of existing cycle routes could be expanded upon, taking forward suggestions in the Sustrans reports of 2020 and the 'Cycle Friendly Deal' report.<sup>104</sup> Opportunities for improving and linking public rights of way, creating new circular routes and off-road cycle routes and multi-user routes should be taken in and around development sites.

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<sup>102</sup> Sustrans. (April 2020). *Dover District Audits – Deal*, page 1.

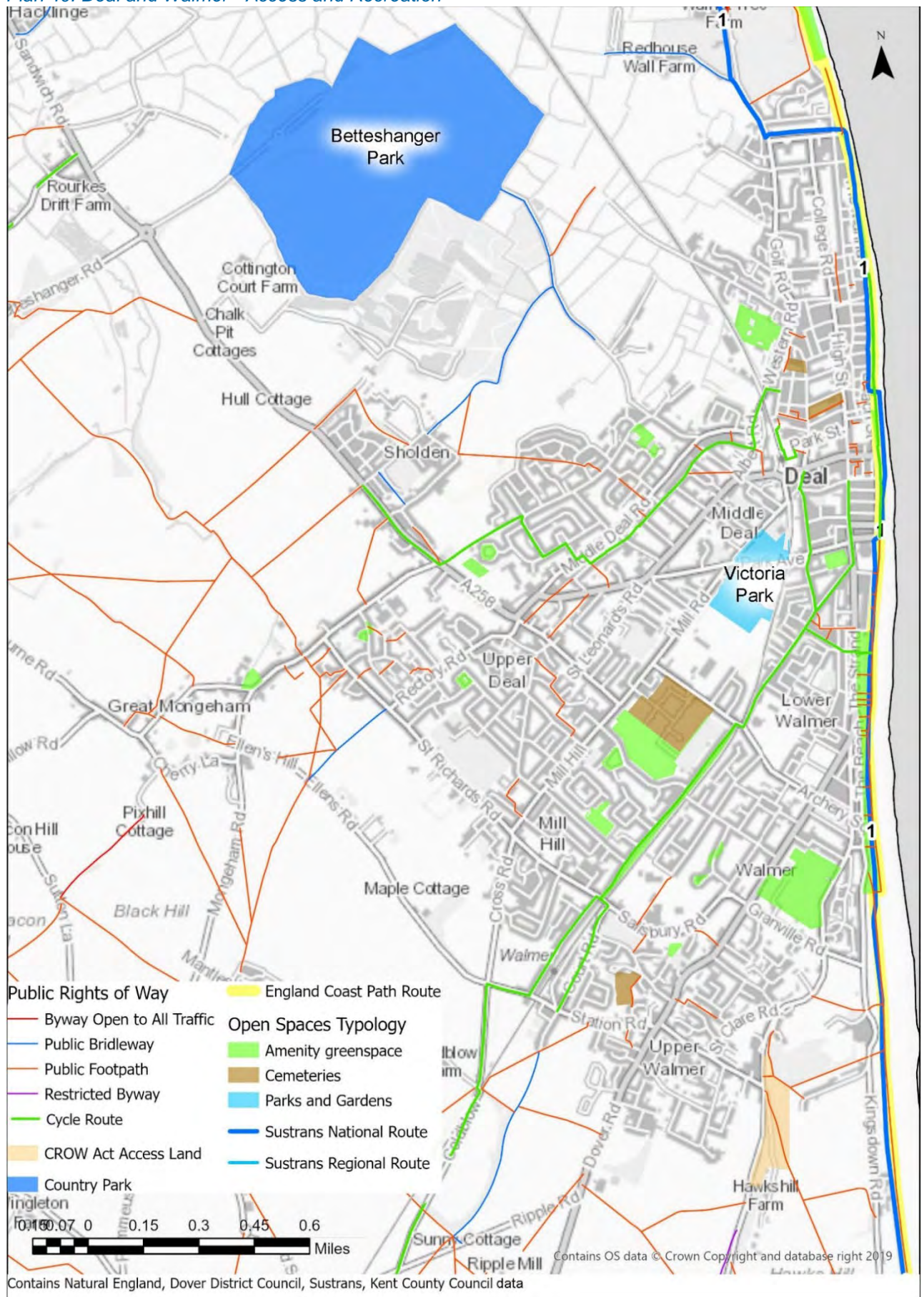
<sup>103</sup> Dover District Council. (2020). *Destination White Cliffs Country – Growth Strategy for Tourism and the Visitor Economy 2020 - 2030 (Executive Summary)*.

<sup>104</sup> Deal Town Council. (October 2018). *Cycle Friendly Deal*.





Plan 40: Deal and Walmer - Access and Recreation



## Active Travel

Deal has great potential to become an exemplar town for walking and cycling. Deal's strengths, both in terms geography and liveability, create opportunities for many interventions that are reasonably easy to deliver and generate significant impact. The urban area is mostly flat and very compact, with the length of the town only 2.8 miles (a cycling time of around 21 minutes at a leisurely pace) and east to west only 2 miles.<sup>105</sup> National Cycle Route (NCN) 1 runs along the seafront, itself attracting visitors and providing a route for residents.

Deal Town Council initiated 'Cycle Friendly Deal', a two-year project to promote more cycling in Deal and more cycle tourism to Deal. Deal Town Council's Regeneration Advisory Committee successfully bid for funds from the Government's Coastal Communities Fund and the Town Council supplemented the government's funds to create a total budget of £116,000 for the project.

The town already has numerous areas of high quality public realm and good connections, including the pedestrianised high street, the traffic-free seafront sections of NCN 1 and low-traffic streets parallel to the seafront which connect residents and visitors to shops, cafes and amenities, with minimal vehicular interactions.

However, there is a lack of dedicated cycling and walking routes to key destinations elsewhere across the town, including schools, tourist attractions and local amenities. There are also high volumes of traffic in some areas with poor quality footways and crossings. The 2020 Sustrans report makes several area-wide recommendations, in addition to specific routes, such as creating low traffic/low speed neighbourhoods in which traffic is reduced and pedestrians and cyclists are prioritised, creating school zones and high-quality walking and cycling routes from local residential areas. This should include working with developers and transport planners to ensure new developments provide for and prioritise walking and cycling and connect to existing walking and cycling networks. The report for Cycle Friendly Deal also recommends a wide range of improvements – including promoting 'Quietways'.

The town has a significant older community, who would also benefit from improved accessibility, for example connecting care homes to shops and amenities, improving footways to facilitate mobility aids and investment in leisure routes.<sup>106</sup>

Linking and connecting routes to the green and blue infrastructure and open spaces should also be considered, with opportunities to join them to small public spaces and provide seats, benches, trees and shade.

## Health and Wellbeing

Middle Deal and Sholden Ward has one of the lowest life expectancy at birth in Dover district as well as one of the poorest life expectancies at age 65. Childhood obesity is also one of the highest in the district in Middle Deal and Sholden. Walmer Ward has one of the highest number of people reporting that they are in very poor health.<sup>107</sup>

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<sup>105</sup> Deal Town Council. (October 2018). *Cycle Friendly Deal*, page 10.

<sup>106</sup> Sustrans. (April 2020). *Dover District Audits – Deal*, page 2.

<sup>107</sup> Dover District Council. (2017). *State of the District – Health and Wellbeing*.

## Biodiversity

Primary areas of biodiversity interest are shown in Plan 41.

A highly protected area lies to the north of Deal. There are several designations – the Thanet Coast and Sandwich Bay Special Protection Area (SPA) and Ramsar, Sandwich Bay Special Conservation Area (SAC) and Sandwich Bay to Hacking Marshes Site of Special Scientific Interest (SSSI). The SAC designation extends to the outskirts of Deal.

Kingsdown and Walmer Beach Local Wildlife Site follows the coast to the south of Walmer. This site contains coastal vegetated shingle, which is a rare habitat. Several rare moth species have been recorded on this site, as well as scare plants.<sup>108</sup> There are several pressures on this site, including trampling of the rare vegetation, garden waste and invasive species and lack of management.

The Biodiversity Opportunity Area (BOA) reflects the core of highly designated sites and also extends around the urban edge of Deal, see Plan 42. Development which takes place in this area should seek to retain and improve connectivity across the BOA.

Within urban Deal it can be seen from Plan 39 that Victoria Park, along with the greenspace and pitches around Goodwin Academy, Hamilton Road cemetery and other open spaces forms a green heart for Deal. The railway line and the greenspace alongside Telegraph Road continues this corridor to the outskirts of the town. There are opportunities to improve the biodiversity of this area through a co-ordinated project which links all of these areas of land, for example planting pollinator species, leaving areas of grass longer, improvements for hedgehogs. Wildflower verges and areas within otherwise barren open spaces could be extended across the town.

## Water

The areas at risk of flooding and watercourse are shown in Plan 43.

Large areas of north Deal fall within flood zone 3, as well as the low-lying land to the north and north west of Deal. These, and other areas within Deal, are also at risk from surface water flooding. There are areas of combined sewers in Deal (common to other older towns), which can also lead to flows exceeding the capacity of the system. New development may have separate systems, but these will eventually discharge into a combined system. Although infiltration via SuDS is not possible, any features which slow down flows could help to prevent the sewer system from becoming exceeded.

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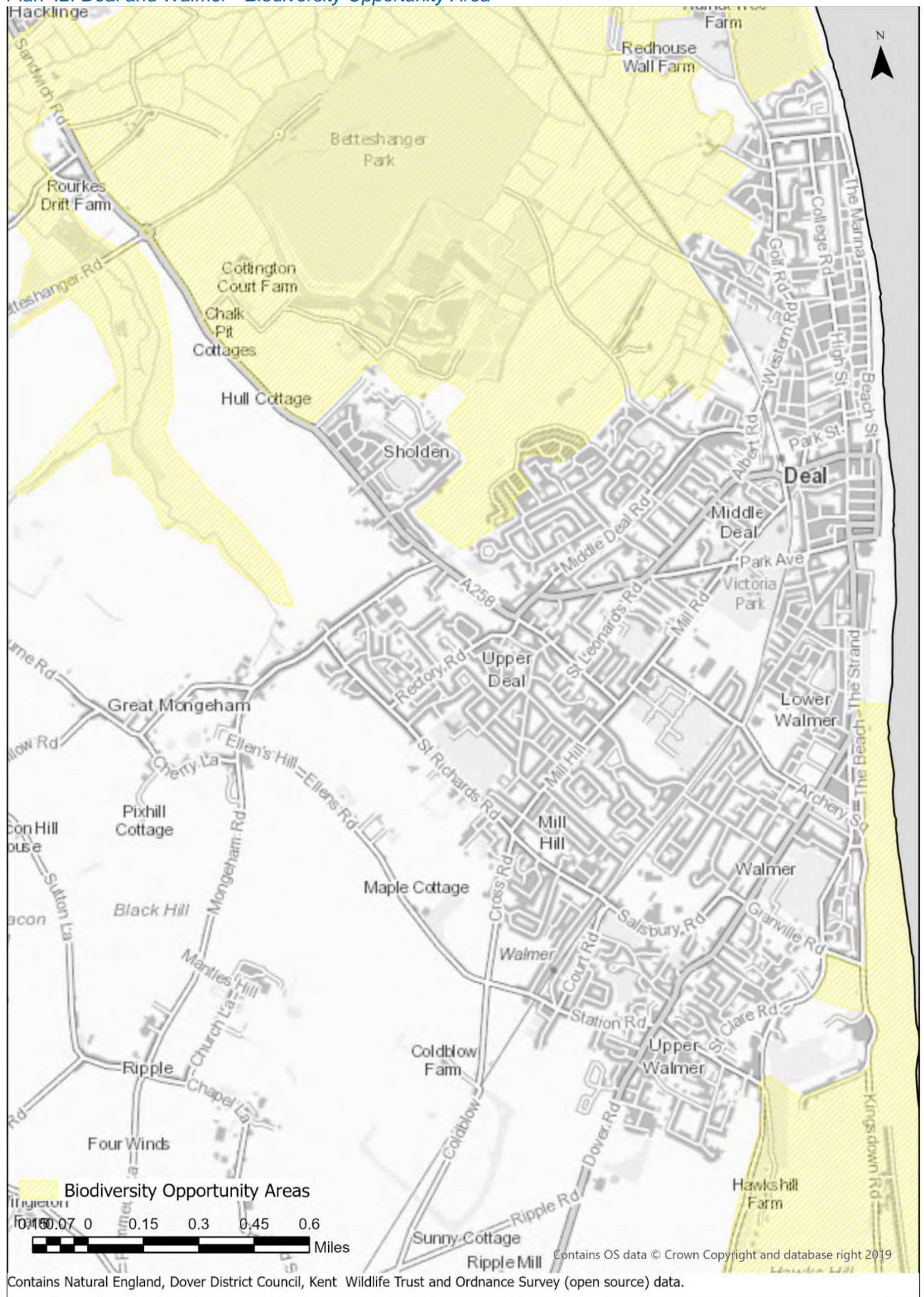
<sup>108</sup> White Cliffs Countryside Partnership. (2010). *Kingsdown and Walmer Beach, Draft Management Plan 2010 - 2014*.







Plan 42: Deal and Walmer - Biodiversity Opportunity Area









## Needs, Opportunities and Priorities

### 1 **Establish and improve the ‘green heart’ of Deal and thread biodiversity and pollinator-friendly areas throughout the town.**

- Improve the biodiversity of Victoria Park with a co-ordinated project including other adjacent greenspaces. Extend biodiversity improvements alongside Telegraph Road. This could involve leaving longer grass or planting for pollinators, improvements for hedgehogs and other wildlife improvements. Ensure development in this area also links into this wider aspiration;
- Explore ways in which the promenade could be made more wildlife-friendly, by incorporating more habitat for pollinators and the rare and specialised bumblebees for which east Kent is an important stronghold;
- Carry out widespread greening and wildflowers on greenspaces and verges throughout Deal;
- Increase tree cover and tree planting in the urban area and in the surrounding urban fringe, where this is compatible with landscape character. Deal has low tree canopy cover and is within a priority area for the Urban Tree Challenge Fund;
- Take forward the management of invasive species, recreation and habitats at Kingsdown and Walmer Beach Local Wildlife Site, update the management plan;
- Implement biodiversity net gain with special attention to connectivity and wildlife habitats in the development sites which are within the Biodiversity Opportunity Area.
- Incorporate SuDS features in new development to slow surface water flows into sewer system;
- Consider the suitability of SuDS features in all green and blue infrastructure improvements and investigate areas where SuDS could be installed in existing greenspaces.

### 2 **Create better access connections, for health, recreation, tourism and active travel.**

- Consider recommendations from the Sustrans Walking and Cycling Audit and the Deal Town Council ‘Cycle Friendly Deal’ project to improve walking and cycling for health, recreation, tourism and active travel;<sup>109</sup>
- Consider expanding “Click to Cycle’ opportunities;<sup>110</sup>
- Focus upgrades on public rights of way at the urban area to improve links to the countryside from the outer edges of the urban area;
- Improving connectivity between accessible open space in Deal and Walmer, including utilising smaller open spaces, for example installing more informal seating areas to encourage adults and older people to walk;
- Sustrans improvements – improve public realm in these areas, such as identifying ‘focus areas’ important for active travel, improve access to stations, schools and attractions. Improve the quality of the public realm and creating opportunities for greening, play, rest and cultivating local communities.

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<sup>109</sup> Sustrans. (April 2020). *Dover District Audits – Deal*, page 44.

<sup>110</sup> <https://www.click2cycle.com/>

## Aylesham

In 1926, construction started on a 600 acre site near Aylesham Wood to accommodate mine workers of the nearby Snowdown Colliery and their families. Due to the decline of the mining industry and the subsequent closure of the Snowdown Colliery in 1987, the village did not reach its full potential. In order to provide more housing in the region, Aylesham is now the focus of regeneration efforts.

The population of only around 5,700 (in 2018) is intended to grow as the village becomes a Rural Service Centre for the area, with more housing options and improved shopping and community facilities proposed.

The green and blue infrastructure in Aylesham is shown in Plan 44 and the blue infrastructure in Plan 48.

### Access and Recreation

Aylesham's access and recreation network is shown in Plan 45.

There are no parks in this area. The Aylesham Masterplan Supplementary Planning Guidance Document (2005) recommended that the Burgess Road, central open space become the focal point of the village, with good pedestrian and cycle routes to the station. The masterplan recommended a fairly formal design with a central avenue tree planting that carried through to the market square and Boulevard Courrieres.

While there are a good number of public rights of way in the area, they are poorly connected. More could be made of the promoted routes to encourage healthy and active lifestyles in this area of health deprivation, such as improved surfaces, removal of styles, good waymarking and linking up of public rights of way and promotional material. Linking up existing public rights of way to form a new circular route should be considered. The public rights of way network around Aylesham is shown in Plan 46. There is an opportunity to improve access and off road routes and link public rights of way through new development sites to key areas.

### Active Travel

Aylesham is relatively flat which enhances the potential for cycling and walking. Infrastructure that has already been installed includes a high-quality shared use path through the central open space, between the station and Market Square. This demonstrates what is possible to create a high-quality walking and cycling environment in Aylesham that will support regeneration efforts and liveability.

Over 70% of people in Aylesham reported using a car or van to travel to work in the 2011 census, with 10% of people reporting that they walked. Currently there is a lack of dedicated walking and cycling routes to key destinations such as schools, employment centres and local amenities. The general road environment prioritises motor-vehicle movement over non- motorised users. Moreover, there is an absence of pedestrian and cycling priority through design in recent housing developments, with significant barriers to accessibility from a lack of dropped kerbs and formal

crossings, user conflict risk from unclear priorities and inconsistency of footway provision, and a lack of safe transitions from off-road paths to on-road.<sup>111</sup>

However, Aylesham is currently undergoing a period of change and expansion, with the delivery of the planned development to the north of Aylesham and further growth proposed in the new Local Plan. This state of change and growth creates an opportunity to establish excellent walking and cycling facilities in Aylesham and due to the planned nature of the town, it has characteristics that will support this. Specifically, many of the streets in Aylesham are wide, or have wide verges, which offers space for people on foot and wheeled users. In addition, the central market square has potential for improvements to the public realm to create a sense of community and identity and facilitate cycling and walking trips. The Sustrans report highlights the need for new policies to improve transport infrastructure to be considered in light of extensive development planned around Aylesham. The report states that *“these developments must make provisions and be designed in such a way that prioritises pedestrians and cyclists and enhances access to public transport; rather than increasing motor vehicle dependency, as is still seen across much of the housing development sector”*.

While most of these are improvements on existing road routes there are significant opportunities to integrate an off-road route through the new development site to the south. This could provide an important new route to the station. These might also link up to new leisure routes - such as upgrading a network of PROW in and around Aylesham to become walking and cycling routes.

## Health and Wellbeing

Aylesham Ward has one of the highest adult obesity prevalence in the district, it is also one of the most deprived. It also has one of the poorest levels of life expectancy at age 65.<sup>112</sup>

There are healthy walks promoted in Aylesham, but these do not make much use of the existing green infrastructure. New healthy walks in this area should be a priority, as mentioned above, linking existing walks to form a new circular route through green areas could be considered. Encouraging active living should be encouraged, opportunities for Community Gardens (mix of allotments/orchards/amenity/natural play) should therefore be considered.

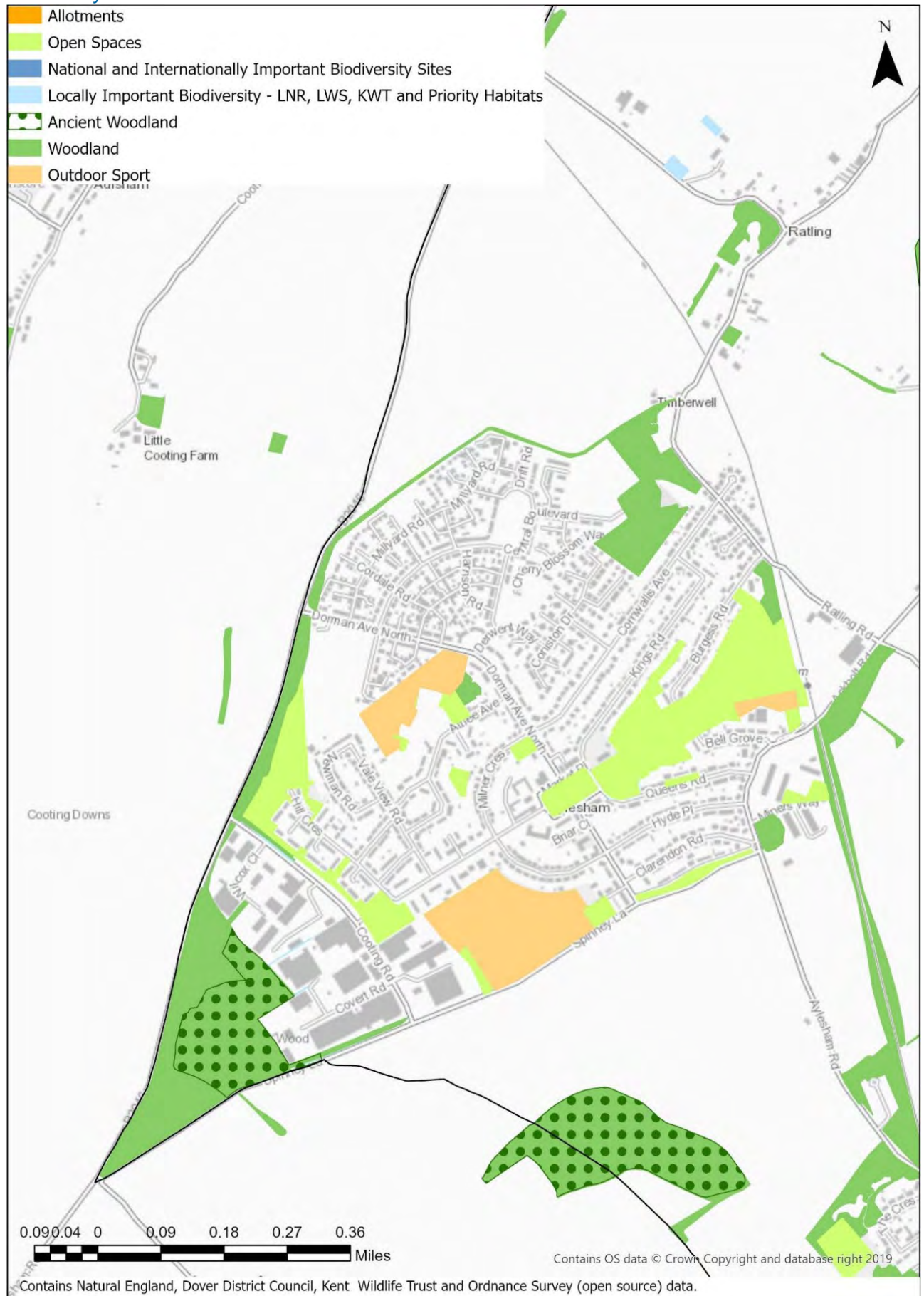
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<sup>111</sup> Sustrans. (April 2020). *Dover District Audits – Aylesham*, page 1.

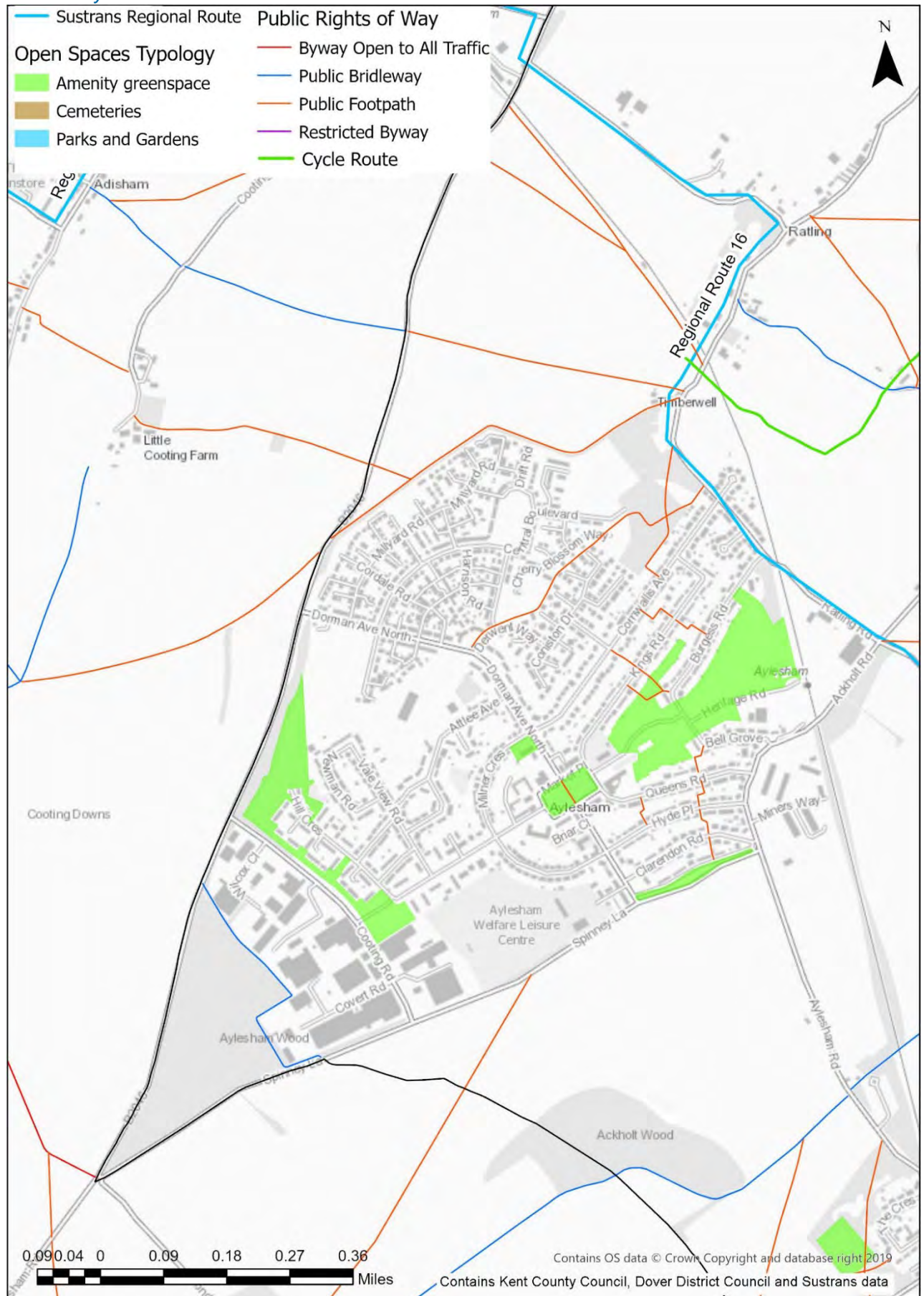
<sup>112</sup> Dover District Council. (2017). *State of the District – Health and Wellbeing*.



Plan 44: Aylesham - Green Infrastructure

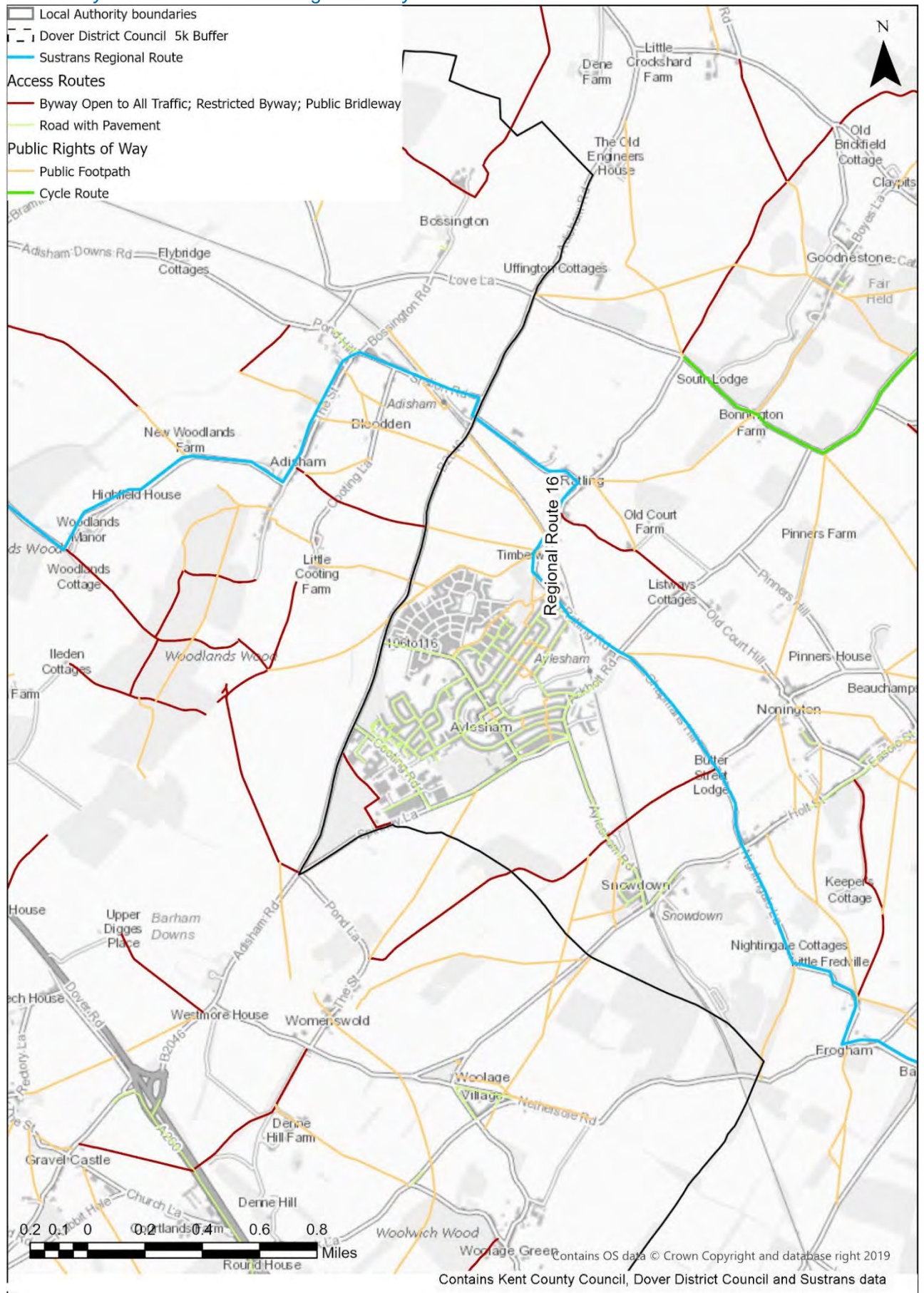


Plan 45: Aylesham - Access and Recreation





Plan 46: Aylesham - Wider Public Rights of Way Network





## Biodiversity

The biodiversity features of Aylesham are shown in Plan 47.

There are no designated sites in or adjacent to Aylesham. There are some small areas of ancient woodland and other priority habitat woodland.

Spinney Wood on the south western extent of Aylesham is an important semi-natural and ancient woodland. It is a mix of ancient woodland and a more recent plantation of trees such as beech. During the spring there are colourful displays of wildflowers such as bluebells and wood anemones, but other rare plants such as lady orchid and white helleborine can be found growing here. Aylesham Parish Council manages the woodland. There is access to the woodland and the White Cliffs Countryside Partnership produced a leaflet.

Despite a lack of designated sites, there is great potential for biodiversity improvements within Aylesham. The wide boulevards of the original village are currently close-mown amenity grass, along with large expanses of amenity grass in Burgess Road Park and around sports fields. There is scope for greatly increasing areas of wildflowers and trees in the boulevards and in the amenity areas. The larger amenity areas offer potential for incorporation of shrubs and wildlife areas. This would help to create a greater connectivity of habitats across all parts of the village.

The local community could also become more involved in wildlife conservation. Gardeners could be encouraged to support wildlife, including wildlife gardening and installing hedgehog highways.

Significant levels of development are planned in Aylesham. There is local concern over potential loss of wildlife due to development.<sup>113</sup> Hedgerows and shaws are needed around and within the developments to create wildlife corridors to link areas of existing trees and woodlands and to provide a buffer area around the developments. Wildflower areas, swift boxes and hedgehog highways should be installed.

## Water

There are no watercourses or areas within the floodplain in Aylesham. There are some areas at risk of flooding from surface water, see Plan 48, for example the valley to the north east of Burgess Road.

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<sup>113</sup> Blackwood Bayne Ltd. (October 2019). *Dover Green Infrastructure Strategy – Workshops with Practitioners, Parishes and Town Councils and Survey Responses*, pages 16 and 17.







## Needs, Opportunities and Priorities

### 1 Establish and improve the biodiversity of Aylesham, bringing nature into the built environment and increasing pollinator- and wildlife-friendly areas throughout the town.

- Instigate an ambitious programme of wildflower seeding on amenity grassland and roadside verges for pollinators and wildlife, along with a programme of raising awareness of the importance of such areas;
- Designate Spinney Wood as a Local Nature Reserve;
- Ensure that new development adequately protects ancient and deciduous woodland from negative effects, including urban edge effects. Use the opportunity to link the woodland habitats in the area with wide shaws and hedgerows;
- Install hedgehog highways and features and swift boxes in new development;
- Encourage residents to incorporate wildlife features into gardens, including wildflowers, bird and bat boxes and hedgehog highways.

### 2 Create better access connections, for health, recreation and active travel.

- The compact and self-contained nature of Aylesham could inspire greater ambition for sustainable place making, better connectivity of open spaces and off road walking and cycling routes to key destinations as well as better access to the countryside. The 2005 Aylesham Masterplan went some way to articulate this, but it could be expanded to include better networked biodiversity areas and a 'greener' healthy environment;
- Ensure new development provides off road cycle access routes;
- Consider the upgrade to the Burgess Road central open space and maximise benefits including improvements to design masterplan, paths, tree planting, routes and walks;
- Improve connections to the countryside, particularly to sites like Fredville Park, parts of which are open to the public;
- There is potential to better connect with promoted routes, such as the North Downs Way and the Coast to Cathedral cycle route;
- There is potential to create small circular routes for walking into the countryside surrounding Aylesham and local walks both east and west to registered parks and wooded areas in Canterbury District.;
- Connections to Spinney Wood could be improved, if this does not affect biodiversity;<sup>114</sup>
- Seek site for allotment or community gardens;<sup>115</sup>
- The Parish Council would like to develop a scented garden or memorial garden;<sup>116</sup>
- Improve safer walking and cycling around Nonington village.<sup>117</sup>

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<sup>114</sup> Blackwood Bayne Ltd. (October 2019). *Dover Green Infrastructure Strategy – Workshops with Practitioners, Parishes and Town Councils and Survey Responses*, page 16.

<sup>115</sup> Blackwood Bayne Ltd. (October 2019). *Dover Green Infrastructure Strategy – Workshops with Practitioners, Parishes and Town Councils and Survey Responses*, page 16. Participants in the workshop suggested there is an opportunity for a new allotment site at Ratling Road.

<sup>116</sup> Blackwood Bayne Ltd. (October 2019). *Dover Green Infrastructure Strategy – Workshops with Practitioners, Parishes and Town Councils and Survey Responses*, page 17.

<sup>117</sup> Blackwood Bayne Ltd. (October 2019). *Dover Green Infrastructure Strategy – Workshops with Practitioners, Parishes and Town Councils and Survey Responses*, page 39.

## Sandwich

Sandwich is located on the east coast in the northern part of Dover district. It is located on the River Stour estuary.

Sandwich is 'one of the best preserved medieval towns in England'<sup>118</sup> and one of the 'Cinque Ports', a historic group of coastal ports in Kent, Sussex and Essex. In medieval times and before, Sandwich was a main Kent and UK port until silt build-up in the River Stour made it no longer accessible by ships or large boats.

As well as medieval architecture, including Grade I listed buildings, Sandwich has a rich history. The Port of Sandwich has had geographical significance since the Roman invasions (around 664 AD), when there was most likely a settlement at the site of what is now called Sandwich, due to its close proximity to Richborough Roman Fort.<sup>119</sup> Sandwich has remained an important gateway to trade, transit and settlement throughout the ages, including mass settlement of a large Flemish population under Elizabeth I (1561), accounting for much of its architectural style.

Sandwich's green infrastructure is shown in Plan 49 and blue infrastructure in Plan 52.

### Access and Recreation

Sandwich's access and recreation assets are shown in Plan 50.

A master planning exercise undertaken in 2016 produced several reports detailing proposals for Sandwich. These include improvements to green and blue infrastructure, such as a new strategic park which circulates the town following the town walls, to the river and connects existing open space.<sup>120</sup>

The Rummey Masterplan report states that a 'Strategic Park' could create many place-making opportunities, stating that "*the Strategic Park will reuse the ancient defensive land but it will also assist in linking South Sandwich to its centre, a disconnection which was exacerbated by the line of the railway. Thus land which was originally intended to keep people out could play a role in welcoming them in. These initiatives reveal a series of opportunities which extend into the town centre and to the north of the river*".<sup>121</sup> The report also maintains that the influence of the Strategic Park could extend further than Sandwich town centre. "*The Strategic Park connects along the town wall to the nature reserve of Gazen Salts and the Quay. There are linkages to the historic core, South Sandwich, and the wider countryside which includes a plethora of nature and RSPB reserves*"<sup>122</sup>.

There are good links to the Stour Valley and Saxon Shore Way promoted routes. The England Coastal Path runs along the coast and National Cycle routes 1 and 15 run around the town and out to the coast. Public rights of way going out of the town could be upgraded for multi-use and there are bridleways and byways that could be turned into cycling routes.

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<sup>118</sup> [www.visitsandwich.co.uk/](http://www.visitsandwich.co.uk/)

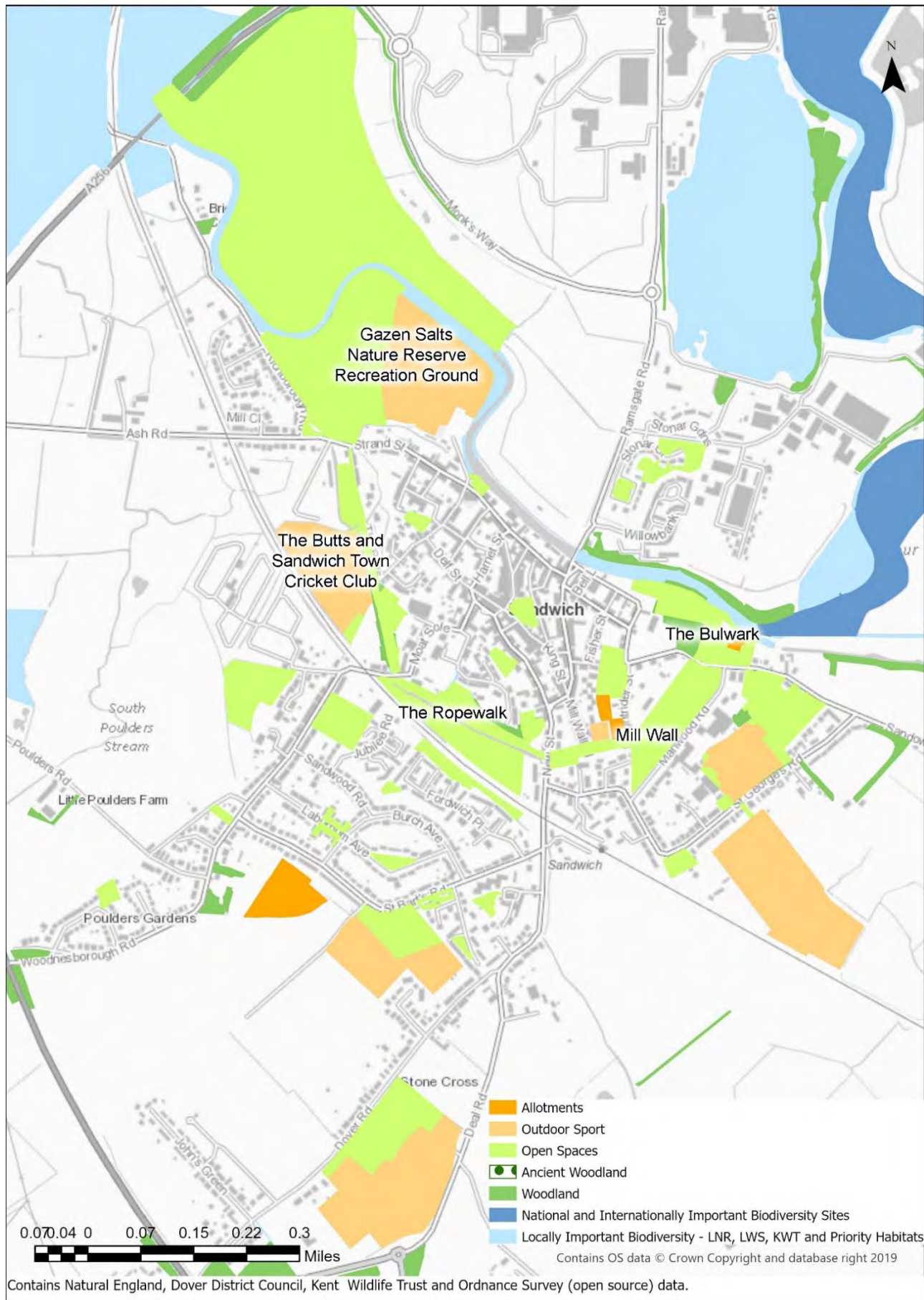
<sup>119</sup> [www.open-sandwich.co.uk](http://www.open-sandwich.co.uk)

<sup>120</sup> Rummey Design. (August 2016). *Sandwich Town Review and Design – Section 4 Understanding Sandwich*. Sandwich Town Council and Kent County Council, page 43.

<sup>121</sup> Rummey Design. (August 2016). *Sandwich Town Review and Design – Section 5 Vision and Initial Proposals*. Sandwich Town Council and Kent County Council, page 53.

<sup>122</sup> Rummey Design. (August 2016). *Sandwich Town Review and Design – Section 5 Vision and Initial Proposals*. Sandwich Town Council and Kent County Council, page 55.

Plan 49: Sandwich - Green Infrastructure







## Active Travel

The 2011 Census shows high car ownership in Sandwich, with 46.2% of households owning one car or van and 35.7% owning two or more (both higher than the Dover district average). Although the roads in the town are narrow and follow medieval patterns, they are often busy and there are frequent vehicle movements around the town. The Dover Cycling Strategy of 2008, estimated that 25% of all car journeys were less than 2 miles, at that time.<sup>123</sup>

However, Sandwich is a small town with many residents living within a short distance from amenities and services and the medieval street network lends itself to pedestrian movements. It is also mostly flat easing trips made on foot or by bicycle. The public consultation document 'Which way for Sandwich' (2016) and resulting masterplan reports show public support for some 'slow zones', improved pedestrian access and more walkable neighbourhoods. It was also suggested that a new strategic park might help make cycle connections to link up important facilities without the use of the car.<sup>124</sup>

The 2020 Sustrans report also makes a number of area-wide recommendations in addition to route and area specific recommendations, such as reducing speed limits and removing through traffic on residential roads. School zones with safe crossings and high-quality walking and cycle routes from residential areas are recommended. The report also recommends pedestrianisation of central Sandwich (where footways are too narrow for pedestrians) and re-focus the medieval centre to prioritise people on foot, cycle or mobility aid.<sup>125</sup>

Tourism and retail are important to the town's economy and its wealth of history and unique attractions draws visitors from far and wide. NCN1 and NCN15 already bring visiting cycle tourers and visitors from neighbouring towns. Further improvements to cycling and walking routes could attract more visits and enable further tourism and commerce within the town.<sup>126</sup> There are outstanding opportunities for Sandwich, and its neighbouring Deal, to become known as leisure and family cycling destinations.

## Health and Wellbeing

Sandwich is one of the wards with the lowest deprivation in the district, although there are pockets of poor health outcomes in the south of the ward. However, it has one of the highest life expectancies at birth and the highest life expectancy.<sup>127</sup>

## Biodiversity

Highly designated sites follow the Great Stour River to the outskirts of Sandwich Town. These designations are due to internationally important habitats, wetlands and groups of birds.

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<sup>123</sup> Sustrans. (April 2020). *Dover District Audits – Sandwich*, page 1.

<sup>124</sup> Rummey Design. (August 2016). *Sandwich Town Review and Design: Final Report and Masterplan*. Sandwich Town Council and Kent County Council, page 72.

<sup>125</sup> Sustrans. (April 2020). *Dover District Audits – Sandwich*, page 3.

<sup>126</sup> Sustrans. (April 2020). *Dover District Audits – Sandwich*, page 2.

<sup>127</sup> Dover District Council. (2017). *State of the District – Health and Wellbeing*.

Gazen Salts Nature Reserve<sup>128</sup> is adjacent to Gazen Salts Recreation Ground. The site is leased from Dover District Council and managed by the Gazen Salts Nature Reserve charity. It is a 15 acre site with a range of habitats. There is also a Local Wildlife Site and areas of priority habitat in the vicinity of the reserve, potentially creating wildlife corridors.

The greenspaces along the Sandwich walls also form a 'green ring' around the town. There are opportunities to make greater provision for wildlife, for example through wildflowers and natural habitats to replace some of the areas of mown amenity grass. Watercourses also follow the route of the wall which could also be improved for wildlife.

## Water

Large areas to the north of Sandwich town lie within flood zone 3 (see Plan 52). Sandwich has in the past been inundated through tidal surges. The Sandwich Town Tidal Defence Scheme was completed in September 2015. The scheme provided a 1 in 200 standard of protection to both banks with 50 years of sea level rise included in the design. There are also some areas of the town which are at risk from surface water flooding.

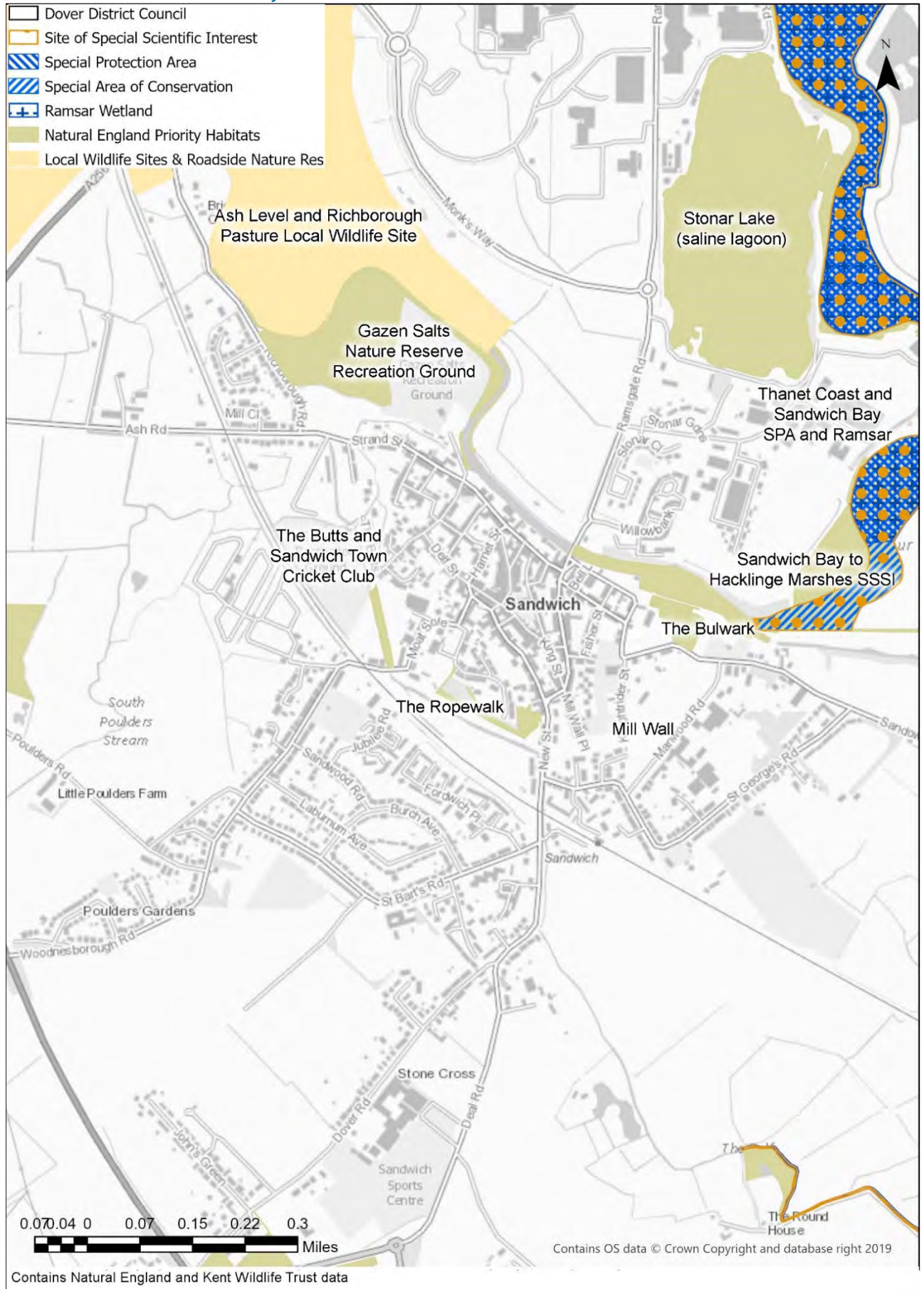
Sandwich town has been built around water. It lies in an area of marshes and watercourses. The Delf Stream runs through Sandwich, although sections are now underground or culverted. There are opportunities to improve the watercourses especially those adjacent to the Sandwich walls. Opportunities to 'daylight' watercourses should be taken wherever possible. Enabling a greater variety of bankside vegetation would help biodiversity. In the wider Sandwich area, there may be opportunities to manage ditches and grazing marsh for biodiversity, as is already happening at Worth by the RSPB.

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<sup>128</sup> <https://gazensalts.co.uk/>



Plan 51: Sandwich – Biodiversity







## Needs, Opportunities and Priorities

- 1 **Improve the biodiversity of Sandwich, bringing nature into the built environment and creating wildlife corridors within and beyond the town to link with wider nature conservation networks, increasing pollinator- and wildlife-friendly areas and improving blue infrastructure.**
  - Consider designating Gazen Salts as a Local Nature Reserve;
  - Incorporate more biodiversity into the management of the town walls and include as part of plan to form a strategic park;
  - 'Daylight' streams where possible and improve bankside vegetation of streams and ditches;
  - Bring more areas of grazing marsh into positive nature conservation management.
  
- 2 **Create better access connections, for health, recreation and active travel.**
  - Progress proposal to create a strategic park – improve connectivity between open spaces to strengthen the series of historic, linked commercial and social spaces;<sup>129</sup>
  - Improvements to the public realm and introductions of 'slow zones';
  - improved pedestrian access and more walkable neighbourhoods in the town;
  - Proposed development sites cut across some public rights of way - some of these could be upgraded to multiuser routes;
  - Progress a cycle / multiuser route to the new RSPB reserve at Worth and linking to the NCN 1;
  - The A256 and railway both form barriers - retain good crossings;
  - Position Sandwich as a cycling and walking town both for residents and to support sustainable tourism.

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<sup>129</sup> Rummey Design. (August 2016). *Sandwich Town Review and Design: Final Report and Masterplan*. Sandwich Town Council and Kent County Council, page 71.



## Rural Dover Villages

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Dover district's extensive rural area contains a great diversity of settlements, in terms of character, size and facilities. These range from the planned villages associated with the former East Kent Coalfield to the villages and hamlets that have their origins in farming. The rural area of the district covers 28,209 hectares.

The strategic aspects of green and blue infrastructure in Dover district are covered in the preceding sections. This section adds further detail relating to the villages within the rural area.

There are no Dover District Council parks and gardens in the rural analysis area.

There are community gardens in some rural villages - Ash, Eastry, Capel-Le-Ferne, Northbourne and Eythorne. Where opportunities exist in new development areas, new community gardens might be considered. These should be a mix of allotments, orchards, amenity space and natural play.

The public rights of way network is particularly important in the rural areas for access and recreation. It also has the potential to be a good tourist resource. Improving the condition and accessibility of public rights of way, particularly around rural villages, would benefit health and wellbeing.

### Active Travel

Sustrans routes in the Dover District Audit should be considered. The National Cycle Route network crosses the rural area.

### Health and Wellbeing

There are small pockets of deprivation and ill health in the rural areas.

### Biodiversity

Across the rural areas of Dover district the main Natural England priority habitat is deciduous woodland. Many of these woodlands are small and fragmented. Reconnecting, enlarging and bringing these woodlands into appropriate management which benefits wildlife will help to improve their nature conservation value and help to increase resilience against climate change. Ash dieback may be a threat to several of these woodlands. Further work is required to understand the scale of this risk. Trees and woodlands can also help to shield the new urban edges of villages which are set to expand, helping to settle them into the landscape.

Large parts of the rural district are within Turtle Dove Friendly Zones. There is an opportunity to involve communities more in the implementation of these.

Development in rural villages should also incorporate nature as a central part, respecting the areas in which the development is located and maximising biodiversity features, and offsetting impacts.

More wildlife areas can also be created in villages through incorporating biodiversity features in amenity areas, creating habitats and through-routes for hedgehogs and swift boxes on new and existing houses.

There are areas of chalk grassland in some part of rural district (outside of the areas described in the section covering Dover town). The main areas are around Kingsdown and the cliff top south to Dover, the Alkham Valley and around Lydden and Temple Ewell. This habitat requires management. Some areas are within agri-environment schemes.

There are five registered parks and gardens, which are not public parks. There is access to some of these on public rights of way, but none are parks open to the public. These are important landscape and heritage features.

## Water

As outline in previous sections, no watercourses in the district are achieving good status as measured under the Water Framework Directive. Often this is due to increased nutrients from farming.

There may be opportunities for riparian planting along the River Wingham near Ash.

## Needs, Opportunities and Priorities

- 1 Improve the biodiversity of Dover’s rural villages, bringing nature into the built environment and creating wildlife corridors within and beyond the settlements to link with wider nature conservation networks, increasing pollinator- and wildlife-friendly areas and improving blue infrastructure.**
  - Tree, woodland and hedge planting to reconnect the landscape and build resilience. Encourage woodland management which also benefits biodiversity;
  - Ensure new development maintains connectivity to surrounding landscape. New development to incorporate wildlife features;
  - Increase community engagement in Turtle Dove Friendly Zones;
  - Assess potential impact of ash dieback and form parish plans to address and mitigate;
  - Incorporate more wildlife features in rural villages, in public spaces and gardens and verges - wildflowers, natural habitats, improvements for hedgehogs, swift boxes;
  - Ensure biodiversity networks, climate change, landscape and heritage are fully recognised in Neighbourhood Plans;
  - Investigate opportunities for riparian planting to benefit nature and to relieve flooding.
  
- 2 Create better access connections, for health, recreation and active travel.**
  - Improve accessibility and condition of public rights of way around villages;<sup>130</sup>
  - Consider new access routes, paths along roadsides or ‘behind the hedge’ to improve safe linkages;<sup>131</sup>
  - Improve public rights of way links between parishes. Co-ordinate promotion of walking routes which cross parish boundaries;<sup>132</sup>
  - Consider new allotments and community growing spaces;<sup>133</sup>
  - Seek accessible open spaces and improve existing spaces for people, play and wildlife.<sup>134</sup>

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<sup>130</sup> Blackwood Bayne Ltd. (October 2019). *Dover Green Infrastructure Strategy – Workshops with Practitioners, Parishes and Town Councils and Survey Responses*, pages 13, 19 and 60.

<sup>131</sup> Blackwood Bayne Ltd. (October 2019). *Dover Green Infrastructure Strategy – Workshops with Practitioners, Parishes and Town Councils and Survey Responses*, page 35. Footpath along Mongeham Road suggested.

<sup>132</sup> Blackwood Bayne Ltd. (October 2019). *Dover Green Infrastructure Strategy – Workshops with Practitioners, Parishes and Town Councils and Survey Responses*, page 48. e.g. in Shepherdswell with Coldred

<sup>133</sup> Blackwood Bayne Ltd. (October 2019). *Dover Green Infrastructure Strategy – Workshops with Practitioners, Parishes and Town Councils and Survey Responses*, page 44. Northbourne - currently has no allotments – consider a community orchard.

<sup>134</sup> Blackwood Bayne Ltd. (October 2019). *Dover Green Infrastructure Strategy – Workshops with Practitioners, Parishes and Town Councils and Survey Responses*, page 32. Goodnestone - Millennium Field and Catsole Village Pond, Ash and Eythorne,



# Glossary

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**Accessible greenspace:** places available for public access, usually free of charge and without time restrictions.

**Semi-natural greenspace:** places that include semi-natural habitat, either forming the whole site or an element within a site.

**Ancient woodland:** an area which has been continuously wooded since at least 1600. These are often the richest woodlands in terms of biodiversity.

**Biodiversity:** the term used to describe the diverse forms of biological life.

**Biodiversity Action Plan (BAP):** a strategy prepared for a local area to provide a framework for conserving and enhancing biodiversity, identifying priority species and habitats and setting out the necessary actions to safeguard these.

**Biodiversity 'net gain':** Development that leaves biodiversity in a better state than before. Biodiversity offsetting: compensates for any adverse biodiversity impact that remains after appropriate prevention and mitigation measures have been taken in response to development.

**Blue corridors:** used to describe linear green and blue infrastructure based around watercourses, including streams, rivers or canals.

**Catchment management:** the coordinated planning and management of a river catchment by a group of stakeholders.

**Climate change adaptation:** the changes that need to take place in an area, or that are naturally taking place, in response to changes in the climate.

**Community Infrastructure Levy (CIL):** a levy on new development to be set by Local Planning authorities and used to pay for new infrastructure, such as schools, roads and green infrastructure.

**Ecosystem:** a system of physical and biological elements which function together as a unit.

**Ecosystem services:** the wide range of essential services and benefits that are derived from a functioning natural environment, including the management of basic resources such as water, food, fuel, air quality and recreation.

**Greenways:** traffic-free routes running through greenspaces or other areas of green infrastructure, providing safe and attractive routes for walking and cycling.

**Green corridor:** linear green and blue infrastructure which includes, amongst others, cycleways, rights of way and disused railway lines. They can also support ecological connectivity.

**Green infrastructure network:** the linking together of areas of green and blue infrastructure to create an interconnected network, providing opportunities for recreation, increasing ecological connectivity and enhancing the landscape.

**Landscape-scale:** a landscape-scale approach seeks to provide multiple benefits, taking a holistic approach which considers biodiversity alongside other issues such as recreation, economics, agriculture and tourism, looking beyond protected areas and discrete wildlife sites to wider natural processes, functioning across the landscape.

**Landscape character:** the distinct and recognisable patterns and elements that occur consistently in a particular type of landscape, and how people perceive these.

**Multi-functional:** the ability to provide more than one benefit or function on a piece of land or across a green and blue infrastructure network.

**Natural capital:** The world's stocks of natural assets which include geology, soil, air, water and all living things. It is from this natural capital that humans derive a wide range of services, often called ecosystem services, which make human life possible.

**Secondary woodland:** a woodland that has grown on land that was previously not woodland, either through planting or establishing naturally.

**Section 106 (s106) Agreement:** Negotiated contributions towards a range of infrastructure and services as part of a condition of planning consent, such as community facilities, public open space, transport improvements and/or affordable housing.

**Sustainable Drainage Systems (SUDS):** systems designed to reduce the potential impact of new and existing developments on surface water drainage.

**Wildlife corridors:** areas of habitat through which species can move to other wildlife areas.

# Stakeholder Input

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A number of stakeholders and town and parish councils were consulted during the process of developing Dover District Council's green and blue infrastructure Strategy. Two workshops were held in March 2019. A survey was also completed by several town and parish councils. Areas of discussion and survey responses are contained in a separate report.<sup>135</sup>

Further meetings or telephone conversations were held with a range of stakeholders.

Workshops and/or further meetings were held with:

- Dover District Council officers and elected members
- Environment Agency
- Kent County Council – Flood Team, Public Rights of Way, Active Travel
- Kent Downs Area of Outstanding Natural Beauty
- Kent Wildlife Trust
- National Trust
- Natural England
- Royal Society for the Protection of Birds
- Sandwich Bay Bird Observatory
- White Cliffs Countryside Partnership
- Your Leisure.

Parish and town councils which attended a workshop:

- Ash Parish Council
- Aylesham Parish Council
- Goodnestone Parish Council
- Guston Parish Council
- Kent Association of Local Councils
- Nonington Parish Council
- Northbourne Parish Council
- Sandwich Town Council
- Walmer Parish Council
- Whitfield Parish Council

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<sup>135</sup> Blackwood Bayne Ltd. (October 2019). *Dover Green Infrastructure Strategy – Workshops with Practitioners, Parishes and Town Councils and Survey Responses*. Dover District Council.



Parish and town councils which responded to survey:

- Ash Parish Council
- Aylesham Parish Council
- Capel Le Fern Parish Council
- Denton with Wootton Parish Council
- Eastry Parish Council
- Goodnestone Parish Council
- Great Mongeham Parish Council
- Lydden Parish Council
- Northbourne Parish Council
- Shepherdswell with Coldred Parish Council
- Temple Ewell Parish Council
- Whitfield Parish Council
- Wingham Parish Council
- Woodnesborough Parish Council

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