

Kent and Medway Local Nature Recovery Strategy

## Part One

# Setting The Scene For Nature Recovery Strategy In Kent And Medway

Pre-consultation draft November 2024

**Prepared by Kent County Council** 

#### Contents

1.	What is a Local Nature Recovery Strategy?	3
2.	Kent and Medway's Natural Landscape	8
3.	What makes Kent and Medway's nature so special	22
4.	A changing landscape	30
5.	Nature recovery opportunities in Kent and Medway	52

#### 1. What is a Local Nature Recovery Strategy?

#### 1.1 Background

In 2022, targets to protect our environment, clean up our air and rivers and boost nature were published<sup>1</sup>. These legally-binding commitments pledged to end the decline of nature and for nature to recover. These commitments acknowledged that such action was required not just for nature's sake but also for all the services that we rely on nature for – provisioning, regulating, supporting and cultural.

Recognising that any recovery of nature would need targeted, co-ordinated and collaborative action the Environment Act 2021<sup>2</sup> set in place a requirement for the development of Local Nature Recovery Strategies (LNRS). With 48 of these across England with no gaps or overlaps, each strategy would agree the priorities for nature recovery and propose actions in locations where it would make a particular contribution to achieving those priorities.

Responsible authorities were appointed to lead on the preparation of these strategies – for Kent and Medway, this was Kent County Council. Responsible authorities were provided with a grant for the development of the strategy and were required to follow the local nature recovery strategy regulations<sup>3</sup> and statutory guidance<sup>4</sup> when preparing the LNRS.

Key to the strategy's preparation was a collaborative approach, with responsible authorities required to work with a wide range of stakeholders to agree what should be included. Stakeholders were considered to be anyone who could play a part in recovering nature and the wider environment – consequently it was a broad and wide ranging number of people that participated.

By working closely with these stakeholders, many of whom would be future delivery partners, the strategy would benefit from the input of people who know and understand the strategy area and what's needed to restore nature and help it thrive. Responsible authorities were expected to provide local leadership to draw together knowledge, expertise and the best available information and data to create an ambitious but achievable strategy, with practical proposals.

#### 1.2 Purpose

The Kent and Medway Local Nature Recovery Strategy (LNRS) provides:

- Set of agreed, ambitious priorities for nature recovery.
- Practical and deliverable potential measures that will deliver on these agreed priorities.

<sup>&</sup>lt;sup>1</sup> New legally binding environment targets set out - GOV.UK

<sup>&</sup>lt;sup>2</sup> World-leading Environment Act becomes law - GOV.UK

<sup>&</sup>lt;sup>3</sup> The Environment (Local Nature Recovery Strategies) (Procedure) Regulations 2023

<sup>&</sup>lt;sup>4</sup> Local nature recovery strategy statutory guidance

- Spatially framed strategy that not only identifies what potential action but also where, focussing action to where it is most needed and where it will deliver the greatest benefits.
- Shared vision for nature recovery and the use of nature-based solutions in Kent and Medway.
- Framework for join-up action, developed with those who will be instrumental in its delivery.

The intention of the Kent and Medway Local Nature Recovery Strategy is to direct action and investment to areas where it is most needed and will derive the greatest benefits. And to steer losses and impacts away from the county's most valuable natural assets. The mechanisms for this are provided by<sup>5</sup>:

- A new duty on all public authorities to have regard to relevant local nature recovery strategies.
- An incentive in how the new requirement for biodiversity net gain is calculated to recognise the added impact of taking action where the local nature recovery strategy proposes.
- Integration of Local Nature Recovery Strategies into the planning system, so that areas of greatest potential for nature recovery can be better reflected in planning decisions.
- Funding for specific activities that local nature recovery strategies will be expected to propose locations for.

The Strategy will not:

- Draw localised, detailed or definitive boundaries but will identify areas where action is likely to provide the greatest gains.
- Dictate actions or instruct their implementation but will identify potential measures that could be taken to support the recovery of nature.
- Force landowners and managers to make changes to the way they use and manage the land or their operations. But action will be incentivised by linking delivery of the strategy priorities to a wide range of government grants and funding.
- Prevent development from happening but will inform future local plans, in terms of land use planning, and inform development management, in relation to biodiversity net gain.
- End in 2025. Once published, the real work begins in respect of delivery. Further the strategy itself will be reviewed, revised and republished on a regular cycle, which must happen every 3 to 10 years.

#### **1.3 Understanding the elements of the Local Nature Recovery Strategy**

The Local Nature Recovery Strategy (LNRS) is a set of agreed priorities for Kent and Medway's nature recovery, with spatially framed potential measures to deliver these.

https://www.gov.uk/government/publications/local-nature-recovery-strategies/local-nature-recovery-strategies#how-local-nature-recovery-strategies-will-be-delivered

A **priority** is the outcome we want to see for nature – you can find Kent and Medway's priorities for nature in sections 5-14 of Part 2 of the Strategy.

A **potential measure** is the proposed action to deliver the priority – these must be practical and achievable. You can find Kent and Medway's potential measures in sections 5-14 of Part 2 of the Strategy and view the mapping of these measures online at <u>Kent & Medway LNRS Measures</u>.

The **local habitat map** is a map of the strategy area that provides a clear visual way for groups and individuals to understand the areas which are, or could become, of particular importance for biodiversity and the environment to target nature recovery action. As such the local habitat includes:

- National conservation sites.
- Local nature reserves.
- Areas of particular importance for biodiversity.
- Areas that could become of particular importance for biodiversity.
- Areas where the recovery or enhancement of biodiversity could make a particular contribution to other environmental benefits.

You can find the Kent and Medway local habitat in section 1 of Part 2 of the Strategy and view it online at <u>https://webapps.kwtg.uk/local\_habitat\_map</u>.

**Areas of particular importance for biodiversity** (APIB) are the mapped national conservation sites, local nature reserves, local wildlife sites and irreplicable habitat. The areas eligible for inclusion is this map is tightly defined by the LNRS regulations. You can find the Kent and Medway Areas of particular importance for biodiversity in section 1 of Part 2 of the Strategy and view it online at <u>LNRS APIB Webmap</u>.

Areas that could become of particular importance for biodiversity are the mapped opportunity and target areas for nature recovery. These are the areas of the county that have been identified as in greatest need of action and/or delivering the greatest benefit, in relation to achieving the ambitions of the Kent and Medway Local Nature Recovery Strategy. You can find the Kent and Medway Areas that could become of particular importance for biodiversity in section 1 of Part 2 of the Strategy and view it online at <a href="https://webapps.kwtg.uk/local\_habitat\_map">https://webapps.kwtg.uk/local\_habitat\_map</a>.

Within the Strategy documents you will also find

- A **description of the strategy area** and its biodiversity this is summarised in Part One, with more detail on the habitat types and species groups provided with the relevant habitat and species priorities in Part 2.
- An overview of how the distribution and extent of habitats has changed.
- Pressures for nature and challenges to its recovery.
- The national and local strategic context for the LNRS.
- The **opportunities for recovering and enhancing biodiversity** this is summarised in Part One, with more detail provided with the relevant habitat priorities in Part 2.

• Wider environmental issues affecting part or all of the strategy area which changes in land use or management, **nature-based solutions**, could help to address – this is summarised in Part One, with more detail provided with the relevant habitat priorities in Part 2.

#### 1.4 Development

The Local Nature Recovery Strategy's preparation was evidence-led and collaborative, with wide involvement of public, private and voluntary sectors. The work was undertaken in a transparent and inclusive manner, with clear communications at every step. To support this a governance and delivery structure was created to ensure that the Kent & Medway Local Nature Recovery Strategy:

- Met the requirements of the regulations and statutory guidance.
- Benefitted from the knowledge and expertise within the county, to ensure it is technically sound.
- Engaged all stakeholders throughout the whole process, to develop the support and buy-in critical to the successful delivery of the Strategy's priorities.

This structure<sup>6</sup> included:

- Project Board providing political and strategic oversight and governance for the development of the Strategy.
- Delivery Group providing technical and sectoral advice required to steer the preparation of the Strategy.
- Supporting Authorities Group Supporting Authorities for the Kent & Medway Local Nature Recovery Strategy (LNRS) are defined under the LNRS Regulations (2023) as all of the strategy area's local planning authorities and Natural England. The regulations require the Responsible Authority (Kent County Council) to take reasonable steps to involve, share information with and have regard to the opinions of supporting authorities. Consequently, this group was formed to provide a forum where Supporting Authorities' input to the LNRS can be effectively and efficiently facilitated, in a collaborative manner.
- Technical Advisory Groups (TAG), focussed groups of the county's experts, for specific elements of the Strategy development, selected on the basis of their technical competency and/or experience, that will ensure the soundness of resulting Strategy. TAG were appointed to advise on and support – data, evidence and mapping; species recovery; landowner engagement; and broader stakeholder engagement and communications.
- Participation forums and workshops for the wider stakeholder base across the Strategy's development twenty, open to all, workshops were held with the participation of over 1,000 people all contributing to the resulting Local Nature Recovery Strategy.

<sup>&</sup>lt;sup>6</sup> For more detail see <u>Governance, partners and stakeholders | Making Space For Nature Kent</u>

The Strategy was developed over a 12 month period and comprised:

- 1. Development of the Areas of particular importance for biodiversity mapped layer.
- 2. Identification of the pressures and challenges for nature that the LNRS should be addressing.
- 3. Creation of a longlist of potential priorities, based on desired outcomes for nature.
- 4. Refinement of the longlist to create a shortlist of priorities, selecting these against criteria which ensured that priorities were within the scope of the LNRS remit, addressed key pressures and challenges, related to habitats and/or species that was of national or local significance, contribute to national targets, were in need of urgent action, were vulnerable to the impacts of climate change and/or presented the opportunity to realise benefits beyond nature recovery (e.g. nature-based solutions).
- 5. Development of potential measures that would deliver the agreed LNRS priorities.
- 6. Mapping of these potential measures, to where they would deliver the greatest gains and offer opportunities for wider benefits.
- 7. Creation of Areas that could become of particular importance for biodiversity mapped layer, informed by the targeted areas for measures and priorities.
- 8. Creation of local habitat map, illustrating areas which are, or could become, of particular importance for biodiversity and the environment.

Throughout all these developmental stages, partners and stakeholders informed and inputted. More detailed information on the development of each stage is provided in LNRS development supporting information, available from

https://www.makingspacefornaturekent.org.uk/strategy-development-backgroundinformation/

# The Strategy is indebted to the extensive contributions of all partners and stakeholders who contributed so much time, expertise and support throughout the process.

#### 2. Kent and Medway's Natural Landscape

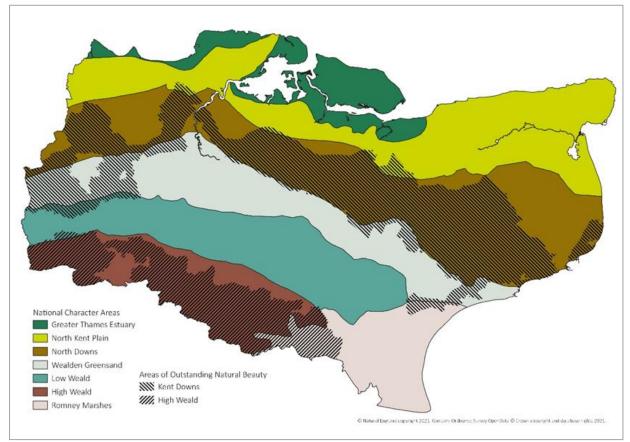
#### 2.1 Areas of Kent and Medway

When looking at an area on a large scale, and for the purposes of nature recovery, it is important to look at natural and functional areas, rather than those defined by administrative boundaries.

The National Character Areas provide a means of considering the area at a strategic scale. These follow natural lines in the landscape, defined by a unique and shared combination of landscape, biodiversity, geodiversity, history, cultural and economic activity. The Kent and Medway Strategy area has seven distinct national character areas (NCA):

- Greater Thames Estuary (NCA81)
- North Kent Plain (NCA113)
- North Downs (NCA119)
- Wealden Greensand (NCA120)
- Low Weald (NCA 121)
- High Weald (NCA122)
- Romney Marshes (NCA123)

The Strategy area also includes two National Landscapes (formerly known as Areas of Outstanding Natural Beauty) – the Kent Downs and the High Weald.

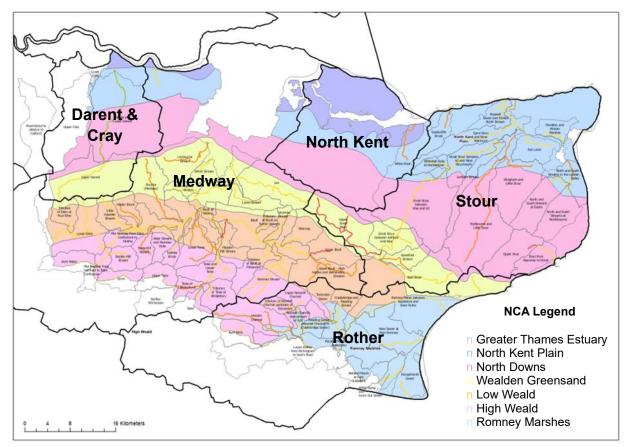


The National Character Areas of Kent and Medway and the county's National Landscapes.

Another way of considering the areas of the county, in terms of functional landscapes, is on a catchment basis. A river catchment is a natural drainage basin, collecting water from various sources and channels them into a low point, eventually merging into the main river. Everything within a catchment is linked and reliant on each other. Within a catchment there will be areas providing natural flood management, water provision for agriculture and wildlife dependent on the associated food chains, to name but a few ways water may provide a service. For rivers and their connected habitats to be healthy, both need to be healthy.

The county has five catchments (not all exist solely within the borders of Kent and Medway):

- North Kent catchment
- River Stour catchment
- River Medway Catchment
- River Darent and Cray catchment
- River Rother catchment



The River Catchment Areas of Kent and Medway.

For the purposes of this introduction to the Strategy area, the description is framed around the National Character Area descriptions, supplemented with further detail on the catchment.

#### 2.1.1 Greater Thames Estuary NCA

Predominantly a remote and tranquil landscape of shallow creeks, drowned estuaries, low-lying islands, mudflats and broad tracts of tidal salt marsh and reclaimed grazing marsh that lies between the North Sea and the rising ground inland. It forms the eastern edge of the London Basin and encompasses the coastlines of South Essex and North Kent, along with a narrow strip of land following the path of the Thames into East London.

Despite its close proximity to London, the Greater Thames Estuary NCA contains some of the least settled areas of the English coast, with few major settlements and medieval patterns of small villages and hamlets on higher ground and the marsh edges. This provides a stark contrast to the busy urban and industrial areas towards London, where population density is high, and development pressures are increasing. Sea defences protect large areas of both reclaimed grazing marsh and its associated ancient fleet and ditch systems, and productive arable farmland. Historic military landmarks are characteristic features of the coastal landscape.

The coastal habitats of the Greater Thames Estuary NCA are internationally important for their biodiversity interest, and support large numbers of overwintering and breeding wetland birds, rare plant and invertebrate species, and diverse marine wildlife. The vast majority of the coastline and estuaries are designated as Ramsar sites and Special Protection Areas. Brownfield sites support priority open mosaic habitat and its associated nationally-rare invertebrate species. The coastline is also of major geomorphological interest for the study of estuarine and coastal processes, and for its nationally and internationally important deposits of London Clay fossils and Pleistocene sediments.

There is a marked contrast between the wild and remote coastal marshes, and the industrial and urban developments which are highly visible in the low-lying landscape. A key challenge is to accommodate increasing development pressure in the area, with the protection and enhancement of the natural landscape and its internationally important coastal habitats and species, and nationally important open mosaic habitat.

#### 2.1.2 North Kent Plain NCA

The strip of land between the Thames Estuary to the north and the chalk of the Kent Downs to the south. The area is open, low, and gently undulating. It is a very productive agricultural area with predominantly high-quality, fertile loam soils, characterised by arable use. Traditional orchards, soft fruits and other horticultural crops exist in central and eastern areas, giving rise to the use of the title 'Garden of England'. There is an extensive area of ancient woodland around Blean, plus significant ancient woodlands further west. However, it is generally an open landscape: characteristic shelterbelts occur within the fruit-growing areas, but the agricultural land is mostly devoid of hedgerows.

The North Kent Plan NCA meets the sea between Whitstable and Deal, changing from a north-facing to an east- or south-facing shore. There is a great diversity of coastal habitats, including chalk cliffs around Thanet, and soft cliffs between Herne

Bay and Reculver and also at Pegwell Bay. There are also areas of intertidal sand and mud, salt marshes (especially at Pegwell Bay), sand dunes (notably Sandwich Bay), shingle beaches (at Minnis Bay and near Deal), brackish lagoons and maritime grasslands on cliff-tops and sea walls.

The North Kent Plain NCA has a strong urban element, with a large number of builtup areas and coastal towns. Developments around London and the Medway towns, in particular, have contributed to significant urbanisation in the west of the NCA.

This NCA is important for food production and associated services (such as soil and water regulation and management) that help to protect the area's natural assets. In addition, flood protection is an important consideration along the rivers and coastline.

To the north is the alluvial Greater Thames Estuary. The area's western boundary is defined by Inner London and the Thames Basin Lowlands.

The North Kent Plain area is characterized by tidal waterbodies and marshy estuarine habitats, many of which include artificial or heavily modified watercourses. It includes the lower and tidal reaches of the Darent and Lower Medway, the network known as the Stour Marshes, plus the White Drain. It also includes the Isle of Thanet chalk groundwater body.

There are some rivers not designated as artificial or heavily modified, which include the Whitehall Dyke, a stretch of the Great Stour between Wye and the A2, Lampen Stream, Wingham, lower part of the Little Stour, and Swalecliffe Brook. Also, the Darent, of which the lowest section flows through North Kent Plain area.

#### 2.1.3 North Downs NCA

A chain of chalk hills that extend from the Hog's Back in Surrey and end dramatically at the internationally renowned White Cliffs of Dover. The settlement pattern is characterised by traditional small, nucleated villages, scattered farms and large houses with timber framing, flint walls and Wealden brick detailing. Twisting sunken lanes, often aligned along ancient drove roads, cut across the scarp and are a feature of much of the dip slope. The Kent Downs National Landscape (formerly Area of Outstanding Natural Beauty) designation is testament to the scenic qualities and natural beauty of the area.

Agriculture is an important component of the landscape, with variation in soils supporting mixed farming practices where arable, livestock and horticulture have coexisted for centuries. The woodlands, many of which are ancient, are a prominent feature of the landscape, yet their ecological value has suffered in recent years due to a reduction in active management since the 1990s, particularly of mixed coppice. Two Special Areas of Conservation (SAC) are designated for their rare woodland compositions. Chalk grassland is particularly notable, with seven SAC designated for chalk grassland interest including outstanding assemblages of rare orchids. The chalk downland habitats support rare species, including the Late Spider Orchid, the Black-Veined Moth and Straw Belle Moth, which are currently found only within the North Downs. The North Downs are cut by the valleys of the Stour, Medway and Darent, with their associated wetland habitats. The chalk aquifer of the North Downs is important for supplying water within Kent. The coast is of international significance with an SAC designation due to the presence of rare maritime cliff communities found within the cliff face and on cliff-tops. Two stretches of the coast are recognised as Heritage Coast: South Foreland, and Dover to Folkestone. An outstanding range of historical and geological features are found along the coast, including Dover Castle and the White Cliffs with their strong cultural associations. Other historical features, including numerous Scheduled Ancient Monuments and buildings dating from the medieval period, are scattered throughout.

In the east, Dover is the main settlement, but the Medway towns of Rochester and Chatham and the town of Folkestone also lie on the periphery of the NCA. Other towns, including Maidstone, Ashford and Sevenoaks, and the city of Canterbury, although within adjacent NCAs, lie close to the boundary. Views from the eastern scarp are dominated by generally undeveloped landscapes much valued by visitors, with outstanding views from many parts of the downs to France. These views are affected to varying degrees by the Channel Tunnel terminal development and the M25 and M20 corridors.

The North Downs NCA includes all of Kent's chalk streams, namely the Nailbourne and Little Stour, Dour, North and South Streams in the Stour Catchment, the Great Stour below Wye, and the Middle and Lower Darent.

These rivers are typically characterized by their stable flow conditions, clear water and the associated vegetation communities as well as supporting trout and salmon populations, although all are impacted by a range of pressures. The Great Stour and Darent are the only rivers not classified as modified, with the former also classed as a Local Wildlife Site. The Upper Dour includes some reaches identified as Priority River Habitat by Natural England, due to their naturalness.

#### 2.1.4 Wealden Greensand NCA

The long, curved belt of the Wealden Greensand runs across Kent, parallel to the North Downs, and on through Surrey. Around a quarter of the total NCA is made up of extensive belts of woodland – both ancient mixed woods and more recent conifer plantations. In contrast, the area also features more open areas of heath on acidic soils, river valleys and mixed farming, including areas of fruit growing.

The area has outstanding landscape, geological, historical and biodiversity interest. Some 51 percent of the total NCA is covered by landscape designation, including the Kent Downs National Landscape. The underlying geology has shaped the scarpand-dip slope topography, with its far-reaching views, but it has also had a significant bearing on the area's sense of place: there are clear links between vernacular architecture, industry and local geology. The heritage assets provide vital connections to the NCA's industrial, military and cultural history, and include distinctive deer parks and more recent 18th-century parklands.

Biodiversity interests are represented by internationally and nationally designated sites alongside numerous local sites and other non-designated semi-natural habitats.

The internationally designated sites include three Special Protection Areas (SPAs), two Ramsar sites and eight Special Areas of Conservation (SAC), representing the outstanding value and quality of the heathland, woodland, wetland and coastal habitats found within the Wealden Greensand NCA. In addition, fragments of acid grassland and parkland landscapes add to the overall diversity of habitats.

The Kent area of the NCA is considerably more urbanised than the south-western part, with many towns including Maidstone, Ashford and Folkestone. The area forms a major transport corridor, with the M25, M20 and M26 motorways and other major road and rail routes all running through it.

A short coastal stretch extends from Folkestone to Hythe, with a heavily developed hinterland: as a result, most of the coastline is protected by coastal defences. The exception is Copt Point, where the eroding cliffs are designated for their wildlife and geological interest. This part of the coastline is also part of the defined Dover– Folkestone Heritage Coast. The coastline offers a contrasting recreational experience from that associated with the heathlands, wetlands and woodlands of the wider NCA.

The curved Greensand ridge partially encircles the adjoining Low Weald NCA. The Kent Lower Greensand groundwater body is considered a major aquifer, important for public and industrial water supply both within and outside the Wealden Greensand NCA. The management of the coastal stretch between Folkestone and Hythe influences, and is influenced by, the coastal stretches in adjoining North Downs and Romney Marsh NCAs.

The Wealden Greensand NCA follows the outcrop of Upper and Lower Greensand, which curves around the western end of the Wealden anticline in West Sussex, east Hampshire and Surrey and forms a conspicuous ridge running west to east across Surrey and Kent terminating in coastal cliffs at Folkestone Warren.

The long, curved belt of the Wealden Greensand runs across Kent, parallel to the North Downs, and on through Surrey. It moves south, alongside the Hampshire Downs, before curving back eastwards to run parallel with the South Downs in West Sussex. The NCA features parts of the South Downs National Park and Surrey Hills Protected Landscape.

The Wealden Greensand gives rise to headwaters for several catchments, including the Upper Darent, the upper section of the Bourne in the Medway Catchment, the Leybourne Stream, Loose Stream, Wateringbury Stream, Ditton Stream and Len (also a chalk stream) as well as the main river Medway at Maidstone.

It also feeds the headwater springs supporting the River Beult. The upper reaches of the Stour also rise from this NCA, with the Upper Great Stour, East Stour, Aylesford Stream and the Great Stour from Ashford to Wye entirely in this area. The waterbodies of the Stour catchment are not designated as modified within this NCA, and neither are the Bourne or Upper Darent, but all other waterbodies in the Medway catchment in this NCA are designated heavily modified.

#### 2.1.5 Low Weald NCA

A broad, low-lying clay vale which largely wraps around the northern, western, and southern edges of the High Weald. It is predominantly agricultural, supporting mainly pastoral farming owing to heavy clay soils, with horticulture and some arable on lighter soils in the east, and has many densely wooded areas with a high proportion of ancient woodland. At the western end, a small amount falls within the adjacent designated National Landscapes of the Kent Downs and High Weald Areas.

The area is generally wet and woody. It is dissected by flood plains and its impermeable clay soil and low-lying nature make many areas prone to localised flooding. Ponds are common, often a legacy of iron and brick-making industries. Gill woodland is a particular feature and a valuable habitat, scarce elsewhere in the south-east of England. Despite its proximity to London and continuing pressure for development, the Low Weald remains essentially rural in character with small-scale villages nestled in woodland and many traditional farm buildings, including oast houses.

It is important for biodiversity, being rated among the most important NCAs for richness of bat species, Bullfinch and Lesser-spotted Woodpecker, and several plants, including Spiked Rampion, plus a variety of rare lichens. It also supports rare invertebrates, notably woodland butterflies.

The NCA is bounded for much of its length by the Wealden Greensand NCA in the north, crossing the counties of Kent, East and West Sussex and Surrey. It includes areas of the Surrey Hills and High Weald Protected Landscapes, plus South Downs National Park. Like the High Weald, the Low Weald is densely wooded, especially in its western arc through West Sussex and Surrey.

Rivers in the Low Weald NCA are almost entirely part of the Medway catchment and include the River Beult, the only riverine SSSI in Kent and designated for its clay river characteristics.

The Beult tributaries include the Ulcombe Stream, Sherway, Upper Beult and lower reaches of the Hammer Stream. All of these are classified as heavily modified, except for the Upper Beult which is deemed natural (including a section identified by Natural England as priority habitat).

#### 2.1.6 High Weald NCA

Encompasses the ridged and faulted sandstone core of the Kent and Sussex Weald. It is an area of ancient countryside and one of the best surviving medieval landscapes in northern Europe. The High Weald National Landscape covers the majority of this NCA in Kent. The High Weald consists of a mixture of fields, small woodlands and farmsteads connected by historic routeways, tracks and paths. Wildflower meadows are now rare but prominent medieval patterns of small pasture fields enclosed by thick hedgerows and shaws (narrow woodlands) remain fundamental to the character of the landscape. On total, some 26 percent of the NCA is covered by woodland, comprising wooded shaws, pits and gills, farm woods and larger woods; of this 26 percent, 17 percent is ancient semi-natural woodland and 5 per cent is ancient, replanted woodland. The majority of the woodland cover is ancient, managed in the past as coppice with standards surrounded with native woodland flora such as Bluebells and Wood Anemones in the spring. Evidence of the area's industrial past is prominent, from the large iron-master houses to iron industry charcoal hearths, pits and hammer ponds found throughout the ancient woodlands.

The small scale and historical patterning of the landscape, interwoven woodland, wetland and open habitats, with many hedgerows and historic routeways supporting semi-natural vegetation, provide a flourishing, accessible landscape for wildlife. Exposed sandstone outcrops along the wooded gills provide nationally rare habitat and support an array of ferns, bryophytes and lichens. The numerous gill streams of the High Weald give rise to the headwaters and upper reaches of rivers which were previously important trade routes for timber, iron and wool out to the coastal ports around Walland Marsh.

In total, the NCA is home to 56 historic parks and gardens covering 4,599 ha. The High Weald provides an example of one of the best preserved medieval landscapes in north-west Europe and has a strong sense of history. This is enhanced by many features, numerous churches and chapels and an abundance of locally distinctive traditional buildings.

The High Weald provides many services to communities living within the area's towns and villages and adjacent urban populations through the supply of drinking water, flood mitigation and carbon storage and a range of open-air recreational activities based around its distinctive character, from walking its ancient routeways to off-road cycling in Bedgebury Forest and water sports at Bewl Water.

The wooded nature of linear routes throughout this and the Low Weald NCA, together with the wooded gills, provides a high degree of interconnectivity to ancient woodland habitats across the High and Low Weald areas. The High Weald and Romney Marsh NCAs are inextricably linked in terms of water resources.

The High Weald NCA encompasses some of the same catchments as the Low Weald NCA, and in many cases gives rise to the headwaters of streams which then move down into the Low Weald.

The majority of priority river habitat in Kent, as identified by Natural England, is found in this NCA, predominantly in the form of headwater streams.

It includes part of the Lower Eden, the Mid Medway above the Eden confluence, Barden Mill Stream, Somerhill Stream, upper parts of the Alder Stream and Hammer Dyke, Tudeley Brook and Lower Teise, the Teise and Lesser Teise, Upper Teise, Teise at Lamberhurst and Teise at Bedgebury, the upper sections of the tributaries of the Beult at Frittenden and Hammer Stream. In the Rother catchment it includes sections of the Kent Ditch, Upper Newmill Channel and tributary of Newmill Channel, Hexden Channel. Gill streams are found in this NCA, which support a specific flora associated with temperate rainforests.

#### 2.1.7 Romney Marshes NCA

An open landscape of reclaimed, low-lying marshland. The area is bounded to the south and east by the English Channel, and to the north and west by the clearly recognisable ancient cliff-line, which now forms the backdrop to the marshes. It includes the vast sand and shingle beaches and flat marshland between Hythe in Kent and Pett in Sussex. This unique and sometimes forbidding area has a character all of its own and contains a wealth of wildlife and geomorphological features.

Dungeness is an area of international importance for its geomorphology, plants, invertebrates and birds. Home to some of the UK's rarest species, it is designated as a National Nature Reserve, Special Area of Conservation, Special Protection Area and Site of Special Scientific Interest, as well as being a proposed Ramsar site. Dungeness (with Rye Harbour) comprise the largest cuspate shingle foreland in Europe, one of the few such large examples in the world.

Scattered settlements are linked by long, straight, open roads and have a distinctive architectural character, including weatherboarding and hung tiles; many have medieval churches at their core. Urban areas account for a small proportion of this rural NCA. The transport links are sparse, and this, coupled with the nature of the landscape, rural isolation and lack of employment, means that the area suffers from issues of social and economic deprivation.

The extensive marshes of the hinterland, now a mixture of arable and grazing land dissected by an extensive network of ditches and watercourses, support a rich flora and fauna and form a striking contrast to the coastal habitats of sandy and shingle beaches, freshwater pits, sand dunes, saline lagoons and flooded gravel pits. The open water network is a vital component of the marshes' irrigation and drainage network.

Areas of the Romney Marsh NCA are designated at National Landscape (Kent Downs and High Weald). These form distinct areas within the NCA which, radiating from the core of the marsh, act as corridors out into the adjoining High Weald NCA and have a unique character. They have a key role to play in connectivity of habitats and linkages to the wider marshland landscape.

The coast continues to evolve; pressures of sea-level rise and climate change will result in coastal change, and informed decision-making will be critical in helping coastal communities and habitats to adapt to change. Much of the area is well below the high-tide level and, as such, is at risk of flooding.

Human land-use has had a major role in fashioning the present landscape, through the drainage of marshes, military activity, gravel digging and the construction of sea walls, housing, tourist amenities, roads, a wind farm, an airport and Dungeness Power Station. The High Weald and Romney Marshes NCAs are inextricably linked in terms of water resources. The Royal Military Canal is predominantly within this NCA but passes through into Wealden Greensand – it provides a continuous corridor linking the two NCAs.

The Romney Marsh NCA encompasses the eastern part of the Romney Marshes catchment, a highly managed environment with recreational use of watercourses. Waterbodies include Romney Marsh between Appledore and West Hythe, the New Sewer, Dengemarsh Sewer, White Kemp and Jury's Gut Sewer, Walland Marsh, Lower Rother, Cradlebridge and Reading Sewer, Newmill Channel, Hexden Channel, and Reading Sewer.

Some of the streams in this NCA arise in the Low Weald or High Weald NCA.

#### 2.2 Protected areas of Kent and Medway

#### 2.2.1 Kent Downs National Landscape

The Kent Downs National Landscape stretches from the White Cliffs of Dover to the Surrey London border. It offers dramatic views, vibrant communities, a rich historic and cultural heritage and diverse wildlife and habitats making it a worthy landscape for national protection. It is the eighth largest National Landscape and, along with the High Weald National Landscape, covers 33% of Kent's land area providing a wealth of opportunities for people to explore, enjoy and benefit from this outstanding landscape.

The Kent Downs National Landscape features North Kent Plain, North Downs, Wealden Greensand, Low Weald and Romney Marshes NCA. The majority of the North Downs NCA is designated as Kent Downs National Landscape.

*Wildlife* - The unique landscapes of the Kent Downs create and contain a rich and distinctive biodiversity, providing a home to many plants and wildlife including several species that are largely or wholly confined to the Kent Downs. Habitats found in the Kent Downs include chalk grassland, woodlands (ancient woodland, veteran trees and wood pasture), traditional orchards and cobnut plats, chalk cliffs and the foreshore, chalk rivers and wet pasture, ponds and heathland. Many of these habitats have become isolated making them vulnerable – and some of the plants and wildlife they support are scarce within Kent and across the UK. Farmers, landowners and conservation organisations are working to connect habitats and provide ecological corridors for wildlife to travel between.

*Woodland* - The Kent Downs is one of Britain's most wooded landscapes, with woodland covering over 20% of the area. It is the second largest land cover after farming and is a vital component of the natural beauty of the Kent Downs. Almost 70% of the Kent Downs' woodlands are ancient woodland. The rich ground flora of ancient woodlands includes Bluebells, Wood Anemones, Ramsons and Yellow Archangel, and the bird song of Warblers, Nightingale and Nightjar can be heard too. The ancient woodlands of the Kent Downs also preserve the evidence of thousands of years of human activity in earthworks, monuments and place names. Coppiced Sweet Chestnut is also frequently seen across many woodlands in the area.

*Water and wetlands -* Rivers, streams, springs and ditches include a great variety of habitat and landscape types and are important features of the Kent Downs. The Kent Downs is crossed by three major rivers: the Darent (chalk stream), Medway (major tidal river) and Stour, which carve their way through the Kent Downs landscape. Marsh land is not common because of the free-draining nature of much of the underlying rock. However marshy areas can be found at the base of the Downs, including Romney Marsh.

*Geology* - A large proportion of the Kent Downs is based on chalk, which leads to vibrant and colourful chalk grassland where orchids and other chalk-loving plants thrive. South-facing steep slopes of chalk and greensand, hidden dry valleys, broad and steep-sided river valleys and of course the iconic white cliffs around the Dover coast are some of the dramatic landforms to be seen. Breathtaking, long-distance panoramas are offered across the landscape.

*Farming* - A long-established tradition of mixed farming has influenced the beauty of the Kent Downs – the pastoral scenery is a particularly valued part of the landscape. Farming covers around 64% of the National Landscape. Expansive arable fields are generally on the lower slopes, valley bottoms and plateaux tops. Locally concentrated areas of orchards, cobnut plats, hop gardens and other horticultural production are also present. Livestock – particularly sheep – can often be seen grazing grassland across the Kent Downs.

*Heritage* - Human activity across Kent for thousands of years has created an outstanding heritage and 'time depth' to the Kent Downs. There are the remains of Neolithic megalithic monuments, Bronze Age barrows, Iron Age hill-forts, Roman villas and towns, medieval villages focused on their churches, post-medieval stately homes with their parks and gardens, and historic defence structures from Norman times to the 20th century. Fields of varying shapes and sizes and ancient wood-banks and hedges, set within networks of droveways and sunken lanes add to the historic look and feel of Kent's rural landscape and the distinctive architecture is a reminder of Kent's lengthy history.

#### 2.2.2 High Weald National Landscape

The High Weald National Landscape extends from Romney Marsh through the High Weald of Kent and into Sussex and Surrey. It is a medieval landscape of wooded, rolling hills studded with sandstone outcrops, small, irregular-shaped fields, scattered farmsteads, and ancient routeways.

The High Weald National Landscape features High Weald and Romney Marshes NCA. The majority of the High Weald NCA is designated as High Weald National Landscape.

*Wildlife* - The High Weald's diverse mix of interconnected habitats – many unchanged since medieval times – are home to an astonishing range of flora and fauna, which add to the unique character of the area. The High Weald's coastline is

made up of shingle ridges, saline lagoons, salt marsh, reedbed, pits and wet grassland with 3,720 different species of plants and animals. It also supports important wintering waterfowl populations. Deeply incised narrow valleys, known locally as gills, create a moist micro-climate which harbours plant populations not found elsewhere in eastern or central England, and which are hundreds of miles from other British populations. Such plants include Ivy-leaved Bellflower and Hay-scented Buckler-fern.

*Woodland* - Over 22.8% of the High Weald is covered by ancient woodland, in the form of a complex and interlinked mosaic of treebelts, shaws, and small or large woodland blocks. The High Weald's woodlands harbour rare species such as the Dormouse, the Pearl Bordered Fritillary and the Black-headed Cardinal Beetle. Nightjars breed in the open space created when woodlands are actively worked. The ancient woodland ground flora is species-rich and includes Coralroot Bittercress, another speciality of the High Weald.

*Grassland and heathland* - The Weald supports 1,400ha of unimproved grassland habitat – nearly 20% of the entire resource of lowland meadow in England. Most of these meadows are scattered across the country; nowhere else is there such a concentration compared with the Weald. There are distinctive zones of open heath, remnants of the area's medieval forests, which are internationally important for their wildlife.

*Water and wetlands -* Gill streams are fast-flowing, are often within woodland and support a specialised range of plants and animals, particularly invertebrates and fish – including Brown Trout and Bullhead. The area has numerous ponds, many manmade – a legacy of use of the area's natural resources. The rare Great-crested Newt is found in many and they also have a rich assemblage of uncommon water beetles, the Medicinal Leech and uncommon plants such as Frogbit, Lesser Water-plantain and Tubular Water-dropwort.

*Geology* - The High Weald countryside gets its ridges, valleys and rolling landscape from the underlying bands of sandstone and clay. The harder sandstone forms the high land and ridges, which generally run east-west across the High Weald. The lower land between the sandstone ridges is the result of the softer clays having been more easily eroded. The action of the elements over time has unevenly eroded these sandstones and clays to leave the steeply ridged and folded countryside that survives today.

*Farming* - The High Weald's rolling hills are draped with small, irregular fields – edged with ancient boundary features and often containing flower-rich grassland. This pattern of small, irregular fields grew out of the way the High Weald was settled, and is the result of the patient work of many small farmers. With their heavy clay soils and steep slopes, many High Weald fields have never been ploughed up to grow crops and have traditionally been used for rearing domestic livestock instead. Compared to many areas of Britain, the area still has a relatively high number of ancient, undisturbed, wildflower-rich hay meadows and pastures. These 'unimproved' grasslands are some of our most important habitats for wildlife conservation, supporting up to 100 kinds of grasses and wildflowers – which, in turn, support a great variety of insects and other creatures.

*Heritage* - The High Weald is a cultural landscape, shaped by people since prehistory to the present day. Its key landscape features were established by the 14th century, and it is considered to be one of the best surviving, coherent medieval landscapes in Northern Europe. The area held many riches for our ancestors and was an important source of raw materials: its sands and clays, stone and iron ore, woodlands and water. The radiating network of roughly north-south droving routes lives on as the area's narrow, often sunken, roads, lanes, bridleways and footpaths. The woodland pastures were gradually cleared by farmers to create the small, irregularly shaped fields that we see today. In the Medieval period, large tracts of land were set aside as hunting forests and deer parks. Remnants of these Forests still exist. The High Weald was the main iron-producing region of Britain, with industrial-scale exploitation during two periods – the Roman occupation and Tudor and early-Stuart period. The archaeological legacy of this activity can be seen throughout the area's woodlands.

#### 2.2.3 National and international designations

**Sites of Special Scientific Interest** (SSSI) are the finest sites for wildlife and natural features in England, supporting many characteristic, rare and endangered species, habitats and natural features. There are 287 SSSIs within the strategy area, covering 38,692ha.

**Special Areas for Conservation** (SACs) are designated to protect habitats and species that are important to biodiversity on a national and international scale; **Special Protection Areas** (SPAs) are designated to protect areas that are important for breeding, over-wintering and migrating birds. Together these form part of the UK's national site network. There are 30 Special Areas for Conservation, covering 8,774ha and 48 Special Protection Areas, covering 45,3186ha, within the strategy area. The area also has 68 designated Wetlands of International Importance, known as **Ramsar sites**, covering 26,249ha, most of which overlap with the SACs and SPAs.

**Marine Protected Areas** (MPAs) offer the same protection offshore, to protect marine habitats, species and processes essential for healthy, functioning marine ecosystems. The purpose of an MPA is to protect and recover rare, threatened and important habitats and species from damage caused by human activities. MPAs include SACs and SPAs with marine components, and many of Kent's are included within this bracket. Also included under MPAs are **Marine Conservation Zones** (MCZs), safeguarding rare, threatened, or nationally important marine species and habitats. There are 16 Marine Conservation Zones off the coastline of the strategy area, covering 167,166ha.

**National Nature Reserves** (NNRs) were established to protect some of our most important habitats, species and geology, and to provide 'outdoor laboratories' for research. There are 11 National Nature Reserves within the strategy area.

#### 2.2.4 Nature sites of local significance

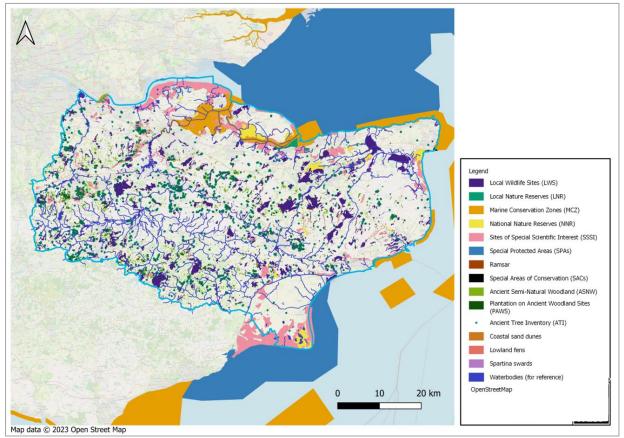
**Local Wildlife Sites** (LWSs) are identified and selected locally under the scrutiny of the Kent Nature Partnership, using robust, scientifically-determined criteria and

detailed ecological surveys. Their selection is based on the most important, distinctive and threatened species and habitats within a national, regional and local context. This makes them some of the strategy area's most valuable wildlife areas, totalling 476 Local Wildlife Sites covering 27,759ha.

**Roadside Nature Reserves** (RNRs) protect and manage road verges which contain threatened habitats or wildlife. There are over 150 such reserves along the roads of Kent, with a combined length of 89km. There are also over 40 **Local Nature Reserves** (LNRs), which are places with wildlife or geological features that are of special interest locally.

Kent has six **Important Bird Areas**, four **Important Plant Areas** and four **Important Insect Areas**.

The Strategy area also features the **irreplaceable habitats** of ancient woodland and ancient trees, coastal sand dunes, spartina swards and lowland fens.



Strategy area's nationally designated sites, Local Wildlife Sites and Local Nature Reserves and irreplaceable habitat.

#### 3. What makes Kent and Medway's nature so special

#### 3.1 Habitats

Kent is one of the largest counties in England by area, covering 391,823ha. Its varied landscape has a wealth of natural features and wildlife habitats. The complex geology of the region, soils, topography and other environmental conditions, have all influenced Kent's landscape and habitats. In addition, the long coastline has a range of important, and in some cases unique, coastal and marine habitats.

Further influences on Kent's natural environment come from its location. It has a temperate climate subject to continental weather influences due to its proximity to mainland Europe, generally being drier than the UK average, with warm summers and cold spells in winter. As a result, the county can support many species uncommon elsewhere in Britain. Additionally, it has an ancient landscape history, with many of the semi-natural habitats being a product of historic land management practices, such as the grazed chalk downland of the North Downs and ancient coppice woodland that spreads across the South East.

Many of these habitats are inherently beautiful and are integral to the attractiveness of Kent's countryside. However, they are also an important resource because they contribute to the maintenance of our environment through the provisioning (e.g. food, water and materials), regulating (e.g. flood management, pollination, temperature regulation), supporting (e.g. healthy soils, nutrient cycling) and cultural (recreation, tourism, health and wellbeing) services they deliver.

In 2012, Kent County Council completed the Kent Habitat Survey<sup>7</sup>. The survey covered the entire county, analysing aerial photographs and previous survey data, and using targeted field survey to produce an up-to-date map of all habitats in Kent. Key findings from the survey included:

- The natural and semi-natural habitats of Kent cover 27% of its surface area.
- The built environment, including industry, development, travel infrastructure and urban areas cover 16% of the county.
- Arable and horticulture is the land use covering the greatest area, 35% of Kent, followed by intensively managed improved grasslands at 30%.
- Woodlands are the largest semi-natural habitat in Kent, covering 12%, of the county with 11% being broadleaved, mixed or yew woodland.
- Traditional orchards occupy 0.4% but comprise around 10% of the traditional orchard area in England.
- Kent has a very small resource of lowland meadow, with just over 5ha of UKBAP and EU Annex 1 lowland hay meadow. This survey has produced the first records for this habitat type in Kent. A further 19ha of lowland meadow and pasture is also UKBAP priority habitat.
- Heathland is one of the county's most rare and fragmented habitats. Around 74ha was recorded from several sites across the county, an increase on the 52ha

<sup>&</sup>lt;sup>7</sup> Assessing Regional Habitat Change (ARCH) - Kent County Council

recorded in 2003. There are seven main clusters of heathland in Kent, with 19 further small sites of heathland found across the county. The largest cluster of heathland contains 25ha.

- The county contains several nationally and internationally important habitats around the coastline including chalk cliffs and reefs, and vegetated shingle.
- Kent has 36 priority habitats. Of these, 17 have been identified as habitats of local and national significance or that support scarce or declining species.

Many of the county's habitats are UK BAP priority habitats – that being recognised as most threatened and requiring conservation action. The diversity and extent of the strategy area's habitats is illustrated by the habitat survey map and the table below<sup>8</sup>.

More detail on the county's habitats is provided within the corresponding habitat priority in part 2.

<sup>&</sup>lt;sup>8</sup> https://www.kent.gov.uk/business/business-loans-and-funding/eu-funding/assessing-regional-habitat-change



Kent Habitat Survey 2012 results

Habitat Extent Significance locally and nationally		Significance locally and nationally	
Grassland habitats	irassland habitats		
Lowland calcareous grassland	1,929 ha	Occurring along North Downs. 60% classed as BAP habitat; represents 5% of the UK's resource.	
Coastal and floodplain grazing marsh	14,174 ha	Majority found along North Kent marshes and grazing marshes of Romney. BAP habitat with greatest cover in county – 3.6%of area. 55% protected by SSSI.	
Lowland meadow	27 ha	Locally very rare and represents less than 0.1% of the broad neutral grassland habitat recorded in the county.	
Lowland dry acid grassland	512ha	One of the rarest and most threatened habitats in Kent. 51% classed as BAP habitat.	
Lowland heathland	74 ha	Mostly found within the NCAs of Wealden Greensand and High Weald, although 22% is within the North Kent Plain and a small amount in the North Downs. All BAP priority habitat, with nearly 90% of this being within either SSSI or LWS.	
Arable field margins	-	Not recorded.	
Successional habitats			
Open mosaic habitat on previously developed land	-	Not recorded.	
Scrub - Not recorded.		Not recorded.	
Woodland, trees and he	dgerows		
Broadleaved, mixed and yew Woodland	44,490ha	<ul> <li>11.4% of Kent</li> <li>Despite the high cover of woodland across the county, only 3% classed as BAP priority habitat:</li> <li>Lowland mixed deciduous woodland – 153ha; mostly found within the North Kent Plain and the North Downs NCAs.</li> <li>Lowland beech and yew woodland – 613ha.</li> <li>Wet woodland – 662ha, accounting for 46.3% of the total woodland BAP habitat recorded in Kent. Important part of the landscapes in the High and Low Weald, as well as the Wealden Greensand and North Kent Plain.</li> </ul>	
Wood pasture and parkland	3,176 ha	Majority found within the Kent Downs.	
Hedgerows	-	Not recorded.	

Traditional orchard	1676 ha	Largest proportion is traditional apple orchards, followed by cherry, mixed, pear and plums.	
Freshwater			
Rivers and streams	6,592ha	No recorded areas of BAP priority habitats. Chalk streams do emerge from the North Downs and form the source of the rivers Darent, Cray, Shuttle, Dour, Nailbourne and stretches of the Great Stour, Little Stour and North Stream.	
<u>S</u> tanding open water	4,628ha	Including BAP priority habitats of lowland fen (12ha) and reedbeds (545ha)	
Coastal			
Coastal saltmarsh	1,338 ha	Majority found along the north Kent coast, and a large area at Sandwich and Pegwell Bay in the east of the county. Represents 11.2% of the county's littoral sediment resource.	
Intertidal mudflats	10,078 ha	Majority of habitat is found along the north coast. Coastlines of Medway, Swale and Canterbury districts have more than 85% of this habitat between them. Second largest BAP habitat in the county – 2.6% of the area.	
Seagrass beds	29 ha	More than half (52.8%) is found off Medway's shores and 38.9% off Swale's.	
Intertidal chalk	415ha	Found to the north-east and east of the county. 56% of England's chalk coastline is found in Kent.	
Oyster beds	-	Not recorded.	
Saline lagoons	286 ha	-	
Coastal vegetated shingle	2104ha	Represents 82.2% of the supralittoral sediment broad habitat type.	
Coastal sand dunes	455 ha	Main dune systems are limited to the eastern and a small area of southern coastline; largest area is found at Sandwich Bay.	
Maritime cliffs and slopes	221 ha		
Sheltered muddy gravel	9.3ha	More than half found off Dartford, nearly a third off Swale.	

#### 3.2 Species

Kent has rich and varied wildlife, with over 3,400 rare and threatened species recorded in the county. Over 20,000 species have been recorded in total in the county, which represents nearly 30% of all UK species<sup>9</sup>.

- Kent's native **amphibian** fauna consists of five species Common Frog, Common Toad, Smooth Newt, Palmate Newt and Great Crested Newt.
- The county is home to a wide number of nationally important and rare **bee**, **wasp and ant** species. 219 species of bee, 221 species of wasp and 41 species of ant are present in the county. Amongst these, Kent is nationally important for Banded Mining Bee, Maidstone Mining Bee, Grey-backed Mining Bee, Shrill Carder Bee, Four-banded Weevil-wasp, Square-jawed Sharp-tail Bee and Fringehorned Mason Bee.
- Almost 68% of Britain's **beetles** have been recorded in Kent. Beetles can be found in almost all habitats in Kent, semi-natural habitats hold the richest diversity of species. Notable species for Kent include Pride of Kent Rove Beetle, Kentish Clown and Sandwich Click Beetle
- About 245 **bird** species have been recorded regularly in Kent during the past 100 years, 150 of them breeding. Kent supports national strongholds of species, whose ranges are contracting towards the southeast, including the rapidly declining Turtle Dove and Nightingale. Its location also makes it well-placed to receive new colonists and support birds at the limit of their European range. The most important habitats at a national and international scale are coastal ones, which support important populations of wintering and some breeding birds.
- Kent has 42 of Britain's 59 resident species of **butterfly**, including two of the rarest species Heath Fritillary and Duke of Burgundy.
- When it comes to **dragonflies**, Kent is one of the most species-rich counties in the UK; the county currently hosts 36 species. The abundance and diversity of wetlands in Kent is a significant factor influencing the county's abundance and diversity of dragonflies.
- Kent has a rich variety of **flies**, with some 60% of the British species recorded. Key habitats for some of the rarer species include broad-leaved woodland, chalk grassland, coastal grasslands, grazing marshes and saltmarsh and private gardens.
- Kent has a rich assemblage of **fungi** with 859 species recorded in the county. Many common species are widespread across the county, with the rare or endangered species restricted to the county's unimproved chalk grasslands, meadows, ancient woodlands, traditional orchards, parkland with veteran trees, churchyards, and sand dunes.
- An overview of **grasshoppers**, **crickets and allied insects** is difficult to provide for Kent, given the lack of a county recorder and paucity of recording effort.
- Twenty-nine terrestrial **mammal** species are found in Kent, including the Water Vole, Hedgehog, Hazel Dormouse, Harvest Mouse and Eurasian Beaver. Terrestrial mammals occupy all identified Kent priority key habitats. Not included in this number is the rich fauna of **bats**, with 17 of the UK's 18 species recorded in the last 10 years.

<sup>9</sup> State of Nature | Kent Nature

- Kent has abundant and varied **marine** wildlife, known to comprise of at least 700 species. The coast also hosts a moderately rich **seaweed** flora with 256 brown, green, and red algae of the 650 known in the British Isles. The Thanet, South Foreland to Dover, and Folkestone seashores are the most species rich.
- All key habitats in Kent hold at least one population of nationally important macro or micro **moth** species, with 750 macros recorded (about 80% of the UK moth species) and between 1,300 and 1,400 of micros. Important populations of rare moth species include Straw Belle and Black-veined Moth on the Kent Downs, the principally coastal species Bright Wave and Fiery Clearwing, and Fisher's Estuarine Moth around the Thames Estuary.
- The county's native **reptile** fauna includes two snakes, the Grass Snake and Adder, and two lizards, the Viviparous Lizard and the Slow Worm. Kent's reptiles use a range of habitats, of which chalk grassland and its associated low scrub is particularly important.
- 473 spider species are recorded, representing almost 71% of the total number recorded in the British Isles – six of these have only been recorded in Kent. Key habitats for these species are chalk grasslands, ancient woodlands, and coastal habitats.
- More than 2,500 taxa make up the Kent **vascular plants**. The county's rare plant register currently lists 333 species and includes the nationally rare plants of Wild Cabbage and Coralroot, both of which have significant Kent populations. In the last 10 years, four native species have been added and 14, previously thought to have been lost, have been re-found.

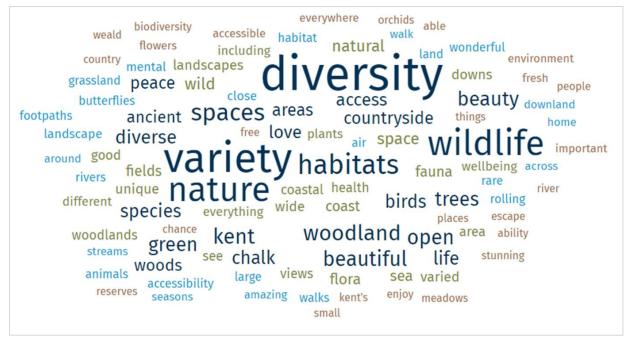
More detail on the county's species is provided within the corresponding species priority in part 2.

#### 3.3 More than facts and figures

It is all too easy to get fixated on the numbers when considering what makes Kent's nature so special but there's the other perspective of the cultural influence and identity is gives the county and, moreover, what it means to the people of Kent – who ultimately will be the ones that either deliver or demand (or both) the recovery of nature.

When asked "what do you love about Kent's nature" our residents not only demonstrated a passion and enthusiasm but also recounted personal memories and their connection with nature "I love it when the blackthorn blossoms and when I get to pick blackberries", commented one respondent, "I love the timelessness of ancient woodland, the ebb and flow of birds on tidal mudflats..." commented another.

However, woven throughout the responses was a sense that our biodiversity was under threat and that perhaps our nature wasn't being valued highly enough. But there was hope that a collaborative vision for the future and better decision-making would offer Kent's nature the support to flourish.



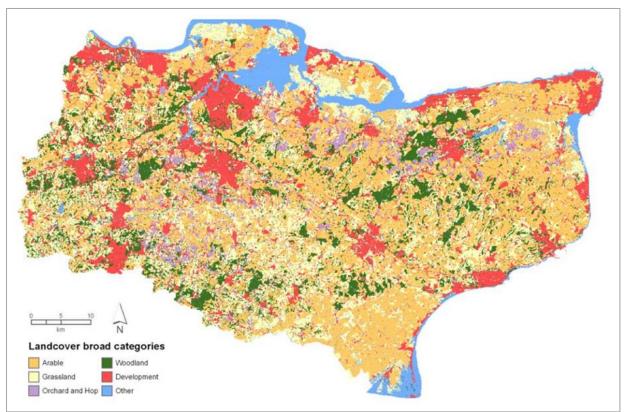
What Kent loves about nature (online survey 2023)

#### 4. A changing landscape

#### 4.1 Changes in landcover

The 2012 Kent Habitat Survey<sup>10</sup> undertook a land cover change analysis across the period of 1961 - 2008. Although concluded 16 years ago, this is still the most recent, comprehensive study of its kind for the county.

The map below illustrates the broad landcover of the county. Arable has the greatest extent, followed by grassland, development and then woodland.

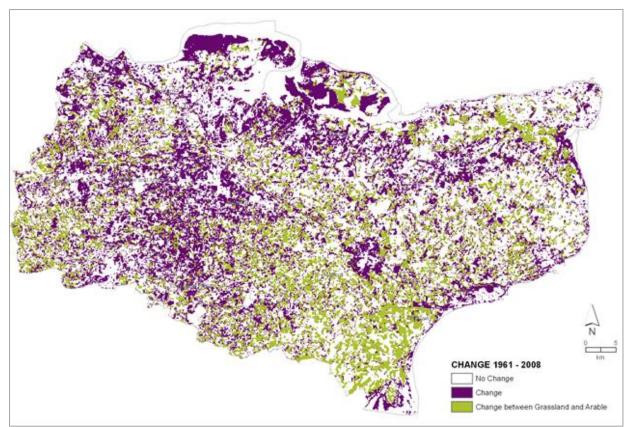


Map of broad landcover in Kent (2008)

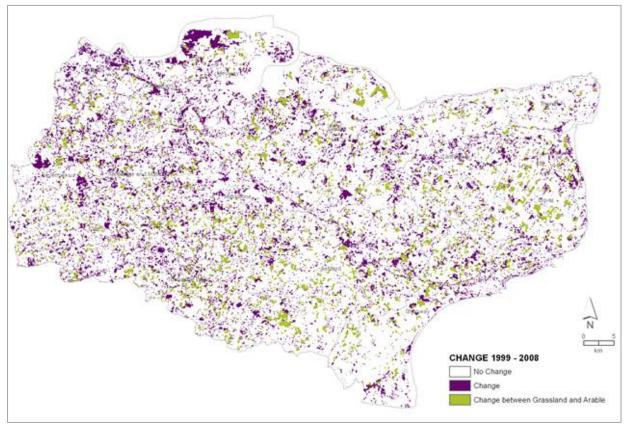
The change analysis showed that land covered by development had noticeably increased, from nearly 11% in 1961 to over 17% in 2008. This represented a total increase of 62% on the 1961 resource. Orchards and hop cover had declined the most, with a dramatic two-thirds of the resource lost since 1961. The extent of land covered by arable and grassland had changed very little, hovering around 60%.

The two maps overleaf illustrate the changes – the first since 1961 and the second for the last decade of the survey period. The change between arable and grassland does not necessarily represent a real or permanent change and is more a reflection of the agricultural economy fluctuation.

<sup>&</sup>lt;sup>10</sup> Assessing Regional Habitat Change (ARCH) - Kent County Council



Filtered change in landcover 1961 to 2008



Filtered change in landcover 1999 to 2008

#### 4.2 Changes in the distribution and extent of habitats

The 2012 Kent Habitat Survey<sup>11</sup> also undertook an analysis of habitat change, since the published survey 10 years previously.

The change from habitats in 2003 to other habitats in 2012 totalled an area of 37,870ha. The table below shows the broad habitats that accounted for 98% of the change. All other broad habitats present in Kent had less than 0.5% change, many much less, and only accounted in total for 2% of the total change.

Broad habitat	Percentage of total change
Arable and horticulture	61.76%
Improved grassland	21.41%
Neutral grassland	5.28%
Broadleaved, mixed and yew woodland	2.67%
Inland rock	2.25%
Built-up areas	1.91%
Standing open water and canals	0.97%
Calcareous grassland	0.85%
Traditional orchard	0.84%
Littoral sediment	0.68%

#### 4.3 Changes in the distribution and extent of species

In 2022, trend analysis of changes in the distribution and extent of Kent species was published, written by the county's species specialists<sup>12</sup>. Whilst this showed that there was positive news to report across most of the species groups thanks to conservation efforts, the national and global trend of species declined was mirrored, with species continuing to go extinct from the county and many more threatened, along with their habitats.

Some headlines from the State of Nature in Kent report are shown below, with more detail provided within the corresponding species priority in part 2.

Wins and losses for Kent's species			
Wins	Losses		
✓ First Wasp Spider recorded in Kent	<ul> <li>Small Pearl-bordered Fritillary</li> </ul>		
(1997)	Butterfly lost from Kent (1997)		
✓ Water-biter Bush-cricket reintroduced	<ul> <li>Frog Orchid last recorded in Kent</li> </ul>		
to Lydden Temple Ewell (1990s)	(1998)		
✓ Little Egret regularly breeding in Kent	<ul> <li>Pearl-bordered Fritillary Butterfly lost</li> </ul>		
(2000)	from Kent (2002)		
✓ UK's first enclosed Beaver trial	<ul> <li>Willow Tit last year of regular</li> </ul>		
established at Ham Fen (2001)	breeding in Kent (2005)		
✓ Brown Hairstreak recorded for the	<ul> <li>Redstart ceased breeding in Kent</li> </ul>		

<sup>&</sup>lt;sup>11</sup> Assessing Regional Habitat Change (ARCH) - Kent County Council

<sup>12</sup> https://kentnature.org.uk/state-of-nature/

	first time since 1971 (2016)		(2016)
$\checkmark$	Few-flowered Spike-Rush found at	×	Turtle Dove added to the Rare
	Ham Fen after a 142 year absence		Breeding Birds Panel species list
	from the county (2018)		(2018)
$\checkmark$	Little Tern fledged at the Castle	×	Bugs Matter survey finds 50% fewer
	Coote area of South Swale reserve		insects in Kent than in 2004 (2019)
	for the first time in 15 years (2019)		
$\checkmark$	Micro-moth Hypercallia citrinalis		
	rediscovered in Kent having last		
	been recorded in 1979 (2019)		
$\checkmark$	Greater Horseshoe Bat rediscovered		
	in Kent (2019)		

### 4.3 Influences on Kent's habitats and species – pressures, threats and challenges

Changes in Kent's habitats and species are influenced by a range of pressures, challenges, and drivers. It is important that any strategy to recover the county's nature takes these into account, addressing them directly where possible and acknowledging the limitations they may present where this is not possible.

Through strategy workshops, Kent's stakeholders assisted in compiling the current and future pressures and challenges facing nature in the county.

#### 4.3.1 Climate Change

The strategy area is on the frontline of climate change. Emerging climate change impacts suggest trends of warmer, wetter winters and drier summers in the UK; and it is considered that as a result of climate change, Kent and Medway has experienced some of the hottest temperatures in recent years.

Drought is a climate change impact that is being further compounded by a growing population and associated high demand for water – not just for people but also for the accompanying food production. As a result, Kent is now a water-stressed county.

With our landmass gradually dipping into the sea due to isostatic effects, habitats on the Kent and Medway coast are particularly vulnerable to sea level rise. Furthermore, rising sea temperatures present an additional pressure on native habitats and species.

There is a rate of habitat condition change taking place because of climate change that many native species can't keep up with. Some species are moving north, and others are declining. Fragmentation of habitats and the wider landscape can restrict the ability of species to move in response to our changing climate.

Climate change is resulting in disruption for pollinating species, and in migratory patterns and life cycles for a range of other species. The decline in the insect

populations has been linked to climate change, as well as other factors such as land management practices including the use of pesticides.

Meanwhile species previously not found in Kent and Medway are migrating from further south as a result of climate change, with changing conditions also favouring some less welcome invasive, non-native species with negative effects on our endemic species.

Extreme climate events, including periods of intensive rainfall, are resulting in pollution from excessive nutrient run off and erosion, reducing soil health. The invertebrates in our soil are often unable to cope with the impacts of water-logging and reduced oxygen in one season, and then a lack of sufficient water in another.

The county's wetland habitats are particularly vulnerable to these extremes of wetter winters and drier summers, while rare habitats such as chalk streams are susceptible to slower flow rates in summer and the increased build-up of pollutants caused by this. Other habitats, such as chalk downland, while generally more resilient to climate change, are vulnerable to these extremes, with intense rainfall damaging or washing away the top layers of the soil.

Whilst the causes of climate change are global and largely out of control of the LNRS, the impacts of it are an overriding context for the strategy. Consequently, many of the priorities and potential measures are looking to manage and mitigate the impacts of a changing climate and make our natural environment more resilient and adaptable. Some of the key considerations for climate change impacts when designing a nature recovery strategy are outlined in the table below.

Drought	Climate change impacts compounded by extra demand for water extraction.
	<ul> <li>River flow rates are reduced, resulting in a greater concentration of pollutants.</li> </ul>
	<ul> <li>Riverbanks dry out, resulting in habitat loss for water voles, kingfishers and otters.</li> </ul>
	<ul> <li>Soil health suffers - reduction in the number worms, slugs, snails available.</li> </ul>
	• Vital areas for breeding wading birds, are drying up.
	Difficulty in establishing newly planted trees.
Extreme	Heatwaves in summer and heavier rainfall and increased
weather	flooding in winter.
events	Soil quality is impacted on a range of habitats.
	<ul> <li>Tidal flooding can result in saltwater encroachment on freshwater habitats.</li> </ul>
	<ul> <li>Contamination of waterways, through the concentration of pollutants.</li> </ul>
	Risk of wildfires destroying some habitats.
Higher	Biodiversity has optimum temperatures for a given habitat or
temperatures	species.
	<ul> <li>Rising freshwater water temperatures - reduces oxygen - loss in fauna.</li> </ul>

Small changes in sea temperature is affecting fauna			
	<ul> <li>Less frost in winter to break up clay soils – decline in soil</li> </ul>		
	health.		
	<ul> <li>Changes in seasonal patterns affecting life cycles.</li> </ul>		
Coastal	Intertidal habitats such as saltmarsh and mudflat are gradually		
squeeze	queeze lost.		
	<ul> <li>Loss of annual vegetative drift line, so vegetative shingle cannot replenish.</li> </ul>		

#### 4.3.2 Pollution<sup>13</sup>

Both air and water pollution put pressures on nature. The current levels of water pollution in the South East, including Kent, which are higher than elsewhere in the country, will have a particular limiting effect on nature recovery action unless this is directly addressed.

*Water Pollution -* The levels of nitrates and particularly phosphates in Kent and Medway water bodies are higher than in other parts of the country and with water bodies drying up, the levels of these pollutants become even more concentrated in summer.

Increased nutrients result in algal blooms, blocking light penetration, which in turn causes submerged plants to decompose, depleting oxygen levels, which can cause fish and invertebrate mortality.

Despite changes being implemented now, improvements in groundwater quality are not expected in the short term, due to the high quantities of nitrates used in the past and the time it takes to filter down to the water table. Improvements in surface water quality may be more rapid. High nitrate and phosphate levels are linked to population growth and intensive agriculture.

Sewage release into water bodies presents an additional pressure and can have severe short-term impacts like those described above. Systems failures, excessive use of storm overflows and illegal outflows are all resulting in increased incidents of sewage pollution in Kent both inland and on the coast.

Microplastics are also in our water bodies, which are an environmental concern because they do not break down via natural processes and are commonly described as persistent organic pollutants or "forever chemicals".

These impacts result in an overall loss of biodiversity. Some habitats, such as chalk streams with low flows, are particularly susceptible to the impacts of pollution.

In addition, flea and other parasite treatments for pets and livestock are also finding their way into the environment and having negative impacts on biodiversity.

<sup>&</sup>lt;sup>13</sup> State of Nature | Kent Nature

*Air pollution -* Air pollution sources include almost anything that involves fuel combustion. Air pollution can influence the quality of soil and water bodies by polluting rain and snow, which falls into water and soil environments. Of particular concern are small particulates in the atmosphere, as they remain suspended in the atmosphere for a long time and can be dispersed over a wide area. These particles can change the nutrient balance in water ecosystems, leading to species loss and damage to forests and crops. They also acidify water bodies.

Atmospheric nitrogen is also having a significant impact on nature, with excessive levels of nitrogen causing loss of sensitive species, changes to habitat structure and function, reduction in biodiversity, changes in soil chemistry, and increased sensitivity to climate change and pests. Ground level ozone can reduce plant growth, flowering and crop yields.

A recent study of atmospheric fine particulates suggested that, across Kent, atmospheric levels were double the World Health Organization's recommended annual average maximum limit. The impact on wildlife and biodiversity can be significant, leading to health problems for animal species, including reproductive failure and birth effects when exposed to high levels of pollutants.

Ammonia from agricultural activity, including fertiliser application and intensive livestock production, also produces additional nitrogen air pollution. Where deposited in soils and vegetation, it can acidify soil and over-fertilise sensitive ecosystems; it also acts as a fertiliser, making conditions too rich for many wild fungi and plants. In 63% of Special Areas of Conservation – our best wildlife sites – nitrogen levels are already too high, with dire consequences for animals, including pollinating insects, which depend on wild fungi and plants for food, nutrients and shelter.

Nitrogen dioxide can negatively impact on insect biomass (Campbell & Vallano, 2018) or directly impair the fitness of birds via inhalation exposure (Sanderfoot & Holloway, 2017). When leached into water, it leads to eutrophication, where elevated concentrations of nutrients stimulate the blooming of aquatic algae, which can cause an imbalance in the diversity of fish and ultimately high numbers of fish deaths.

Ongoing analysis in the Countryside Survey has clearly demonstrated that over the last 30-40 years, roadside verges have seen significant decline in once common wildflowers such as Comfrey, Lady's Smock, White Dead-nettle, Garlic Mustard, Bird's-foot Trefoil, Ox-eye Daisy, and Early Purple Orchid. At the same time, Cow Parsley, nettle species and some grasses have flourished because it has been fertilised into excessive growth by nitrogen compounds from car exhausts, especially diesel ones.

Deposited directly from the air and in rain, the nitrogen enriches the soil, creates acidic conditions and causes direct damage to our flora. More than two thirds of our wildflowers, including plants like Harebell and Betony, require low or medium levels of nitrogen. Only robust species, such as Common Nettle, Cleavers and Hemlock thrive in nutrient enriched soils. Woodlands, grasslands, heaths and bogs have all become colonised by nitrogen-loving plants, with knock-on effects for all our wildlife.

#### 4.3.3 Water demand and management

Water resources and scarcity is an issue in Kent & Medway, with increasing demands from an ever-growing population. Increased hard standing from urbanisation and developed areas, also results in increased flood and pollution risks.

Agriculture also places a high demand for water in the county, with over-abstraction putting pressure on water supplies. An example of a habitat affected by water lost as a result of abstraction is freshwater grazing marsh. This habitat needs a good supply of water, and this is often not available in sufficient amounts in spring and summer when the wildlife that rely on this water supply, such as lapwing and redshank, are present.

As well as the demands we place on water, we are also dealing with the consequences of centuries of man-made river modifications. This has included the straightening of rivers, with barriers such as weirs and other structures being established. The impact of this is reduced flow variation for fish and amphibians to spawn and prevention passage for fish and eel migration.

Some wetlands have been infilled and, where wetlands do remain, there can be poorly maintained infrastructure and insufficient management. In addition, water is often drained from catchments too quickly for wildlife to cope.

As a result, there is loss and degradation of floodplain and riparian habitats, with many rivers and wetlands no longer acting in a natural way. Ultimately this has resulted in reduced connectivity within our catchments and an overall reduction in biodiversity.

#### 4.3.4 Human pressures

*Access* - There are often inequalities in access to nature, with some areas having neither sufficient access routes nor natural greenspace close to where they live. The societal and health impact of this is compounded further, given that many of these areas are all areas of deprivation and low health. And where access does exist, there can be tensions between the needs of nature and the need for public use of the land, particularly on more sensitive wildlife sites. Our coastal sites are particularly vulnerable to this, where recreational disturbance impacts on breeding, passage and wintering waterbirds can render large areas of otherwise suitable habitat effectively unusable by these species.

The county's public rights of way network play a vital role in providing access to nature, but in some cases disturbance of wildlife is an issue. Many people will stick to public rights of way, but in some cases veering off paths results in wildlife disturbance and trampling of vegetation and soil. In other cases, where there are no public rights of way, people still use land for access, resulting in risk to not just wildlife but livestock and crops, plus antisocial behaviour such as littering and vandalism.

Disturbance of wildlife by people and dogs often takes the form of ground nesting birds, such as skylarks, being put up from their nests. Livestock can also be

disturbed, not only potentially harming the animals themselves but also resulting in the trampling of nests. In some areas, dog attacks on animals used in conservation grazing have made it near impossible to manage these sites for wildlife. Disturbance to feeding birds, particularly on our coasts is also an issue. Many of our sites are designated for overwintering wildfowl and wading bird species and the disturbance of these birds through leisure activities, including dog walking, is putting a serious strain on the birds ability to feed, rest and survive the winter and spring migration back to their nesting sites.

*Criminal activity* – Criminal activity relating to wildlife and nature can take many forms. Fly tipping is a common problem which is both unsightly and can result in soil contamination and harm to wildlife. Illegal waste disposal causes pollution. Litter has direct impacts on wildlife, getting into the food chain and killing animals, causing injuries or contaminating water bodies.

Vandalism can cause problems to our wild areas such as destruction of newly planted trees, removal of nest boxes or monitoring equipment, or burning of grassland and heathland sites.

Illegal hare coursing still takes places in some areas of the county, and there are also reports of poaching and the shooting of a range of wildlife.

*Wildlife removal* - Whilst sustainable foraging is a perfectly legitimate activity which connects people with nature, excessive foraging for fungi, fruit and other flora and fauna can have a negative impact. Collecting orchids, other rare plants and birds' eggs is not the problem it once was, but incidents are still reported and pose a risk to our rarer species.

*Disconnect with nature* - There are many people that strongly value their local wildlife, and are even acting for nature through community groups, volunteering etc. Where apathy towards nature does exist, it can result in a lack of motivation to take personal responsibility for nature recovery or to provide a voice for nature. Apathy also means that the health and wellbeing benefits of nature are not always realised. This is self-perpetuating, as a lack of connection can further the apathy.

Disconnect with nature can be particularly prevalent in urban populations, where in some cases there is limited opportunity to experience nature. But it can also happen in rural locations, where barriers might be more psychological, such as fear of nature or wild places.

Disconnect with nature means that people do not value nature, however placing a financial value on nature doesn't always result in the right outcomes. If society only sees nature for the economic value it has, rather than the inherit value it has in its own right, some of the less tangible benefits that it brings may be overlooked and further damage done. It is also suggested that the loss of nature can be compensated for if enough money is spent. Whilst recognising the value of nature may result in important finance, if a financial value is the only value placed on nature, nature and society will ultimately lose out.

Lack of knowledge and understanding - Apathy may stem from simply not understanding or having the knowledge. Or apathy itself can prevent a person from striving to better understand. When people lack in understanding, they are also often unaware of the impacts they are having through their actions and behaviour on wildlife. This can result in unintentional damage to or mismanagement and use of the natural environment.

By contrast, although public interest in more charismatic mammal and bird species is helpful, it can mean that there is a lack of appreciation of species such as invertebrates that underpin the wider ecosystem. Having a better understanding is important – "everyday" wildlife is where most people can make a difference through approaches such as nature-friendly gardening practices, bird and bat boxes and maintaining wildlife corridors.

#### 4.3.5 Built up areas<sup>14</sup>

The public built and managed estate – parks, gardens, schools, sports facilities – are not always used to their potential for nature. This itself presents an opportunity to support nature recovery through improvements to land management.

While some amenity spaces such as sports fields need to be closely mown and have limited wildlife value, they are still part of a network of green spaces and if managed well this wider network provides vital green lungs in urban areas and connectivity for wildlife between the town and the wider countryside.

Many green spaces are not managed for nature however and are over-mown, with plant species not allowed to flower and tree planting does not always focus on native and climate resilient species.

Some nature friendly land management practices, such as cut and collect, can be more costly at the outset and are sometimes simply not accessible as a result.

Greenspace is also lost as a result of front gardens being paved over for parking and grass replaced with artificial grass, paving stones, gravel and impermeable plastic layers. This also results in a reduction in soil health, increased surface water runoff and potentially pollution of water bodies.

A growing population requires housing and infrastructure – not only does this result in land take but also fragments the landscape and reduces connectivity. People also need somewhere to recreate – as the population increases so does their impact, with human disturbance of wildlife a frequent problem and particularly acute where development is close to fragile habitats. The green infrastructure provided for new developments is vital for alleviating pressure on more sensitive wildlife sites. A further impact of an increasing population is the associated number of pets causing disturbance to, and predation on, wildlife.

<sup>&</sup>lt;sup>14</sup> <u>https://kentnature.org.uk/state-of-nature/</u>

Roads result in a fragmented natural environment, direct mortalities from vehicles and air, noise and light pollution.

All new development can present opportunities for nature when delivered well if wildlife connectivity into and through sites is properly designed. This can range from hedges, planted verges and trees, to fencing which allows hedgehog and other wildlife movements. Nature in urban environments also allows for connection with nature and provides regulatory services such improving air quality and mitigating noise.

#### 4.3.6 Agricultural practices<sup>15</sup>

High input farming has been a feature of post war agriculture and the move to bigger farms, bigger machinery and monocultures has resulted in the removal of hedges and reduction of field margins. Horticulture, once common to Kent such as traditional orchard management, has been on the decline for decades, being found by many growers to be economically unviable. Changes to the way in which the land is used not only results in the visual look but also has significant impacts for the quality of the environment and wildlife.

Intensive approaches have contributed to soil health degradation, a decline in pollinators, eutrophication of water and bioaccumulation of harmful chemicals up through the food chain.

There has been an accompanying decline in farmland birds, such as Yellowhammer and Turtle Dove, and general bee and butterfly populations. Species once common on farmland such as the Lapwing, are now pushed to the coastal margins.

Loss of traditional land management techniques and skills, such as ditch management, hedge laying and coppicing, means that there is not always the expertise ready to hand to implement land management more sensitive to nature.

Regenerative farming practices, which focus on soil health rather than chemicals, and other nature friendly farming practices are now on the rise, but the move to such practices is not always easy, especially if the initial transition is more costly. Concerns over impacts on yield and associated incomes means that there can be a reluctance to move away from herbicides, pesticides and synthetic fertiliser and these are all still being widely used, sometimes excessively.

Financial drivers such as the need for biofuels is, in the view of some, driving intensification in new ways and the use of polytunnels are on the rise, resulting in large areas not being suitable for wildlife and causing other environmental impacts, such as increased runoff.

New types of land use such as vineyards are also becoming more common in Kent, as annual temperatures rise and because our chalk geology is suitable. When carried out with nature in mind, this could be a positive trend, as vineyards tend to

<sup>&</sup>lt;sup>15</sup> <u>https://kentnature.org.uk/state-of-nature/</u>

not use all the land, but there are concerns about areas of chalk grassland being taken over and the sustainability of some practices.

#### 4.3.7 Lack of appropriate land management<sup>15</sup>

Most of our woodlands need some sort of management for wildlife to thrive and traditional practices such as coppicing, which have declined over the years, have helped to provide that management.

Wood lotting or the dividing up of woodland for sale results in inconsistent management and fragmentation, while close linear planting is not good for wildlife and results in woodland with little understory for flowers and butterflies and no deadwood for invertebrates.

Deer are increasingly becoming a destructive pest in some woodland habitats, stopping natural regeneration by eating saplings and damaging woodland through bark stripping.

On chalk grassland, a lack of grazing has meant that many areas have been lost to successional scrub habitats. Despite scrub not being welcome on chalk grassland, it is in itself an important habitat but one that is often underappreciated and overlooked in terms of the wildlife value it provides.

Although a lack of management is responsible for a lot of degraded habitats in the county, over-management and a leaning towards "tidy" has meant that road verges, sea walls and amenity areas have been intensively mowed and cleared of "messy" scrub, where these areas could be providing habitat for wildlife.

#### 4.3.8 Game hunting

Habitat management for game birds such as Pheasant and Red Legged Partridge can have a range of impacts on wildlife, some positive, some negative. Sometimes high quality areas for nature are diminished, while in other areas, the cover provided for game birds is useful for other wildlife.

Excessive numbers of Pheasants can see a reduction in reptile species, which they feed on. Legal management of predators such as corvids can benefit species other than game birds, for example ground nesting bird chicks, but there are still instances of illegal management of predators such as birds of prey.

#### 4.3.9 Diseases and invasive and non-native species

As a gateway to Europe – both as a result of geography and infrastructure – Kent is the first stop for many invasive species and diseases from Europe and further afield. This can include species from across the globe, transported in food produce or in ballast water in hulls of ships, which become truly invasive, outcompeting native wildlife or causing disease in native species and in humans. Or can simply be through species making their own passage. Not unique to Kent, but still an issue, is the use of non-native plants in landscaping, which then spread to natural areas.

Ash dieback is a prime example, which has had a huge impact on the native population of ash trees in Kent and Medway, changing the landscape of the county and a habitat so many species depended on. Dutch elm disease is another example of a tree disease that saw vast numbers of elm trees wiped out across the county over the past 50 years.

Kent's waterways have been impacted by a number of invasive species including the plants Himalayan Balsam, Floating Pennywort and Giant and Japanese Knotweed. Invasive animals include Signal Crayfish and American Mink. On our coastline, there are issues with the Carpet Sea Squirt and Brushed Clawed Crabs and the Native Oyster has been lost because of the invasive Pacific Oyster.

Non-native plants have also affected terrestrial habitats, with Rhododendron taking over areas of native woodlands and Cotoneaster spreading on chalk grassland.

Various management and monitoring programmes are in place within the county, but the threat of new invasives and non-natives is always a risk given the Kent and Medway geography.

However not all migrant species will be unwelcome and as a result of a changing climate, we will see new species move into the county. The challenge for nature recovery is determining which will add and enhance our ecosystems and those which will cause harm.

#### 4.3.10 Lack of funding and resources

The lack of funding and resources has a big influence on nature recovery and is, in fact, a driver for nature degradation.

Many of our most valued sites are in unfavourable condition and for those that are protected, it may be questionable if they are still managing to fully support the features they were originally designated for. This is not because of lack of care or interest on the part of the landowner. Habitat management can be costly and time consuming – and often that investment will not generate any economic returns that can be reinvested. Management is also complex – one size does not fit all and often approaches need adjustments depending on the time of year, the environmental conditions or the response of the habitat and species. It is something that requires specialist knowledge and input.

Funding for nature restoration, enhancement or creation is often associated with a time-limited project and whilst the achievements of such projects can be significant, they can be short-lived if there is no onward investment to manage and maintain the gains. Funding is also regularly targeted towards capital works and does not always provide for the personnel needed to support, coordinate and deliver the nature recovery action.

Central investment in the natural environment can be short-term as well, designed to fit around current policy and priorities which can change from one government term to another. Any uncertainty relating to financing and grants can be a big deterrent to a landowner considering entering into agreements for nature recovery.

Green financing and investment approaches are welcomed but they are not necessarily the quick fix to problem of under-funding. Markets are developing and there is a wariness about approaches, often borne out of a lack of knowledge and understanding. And the lack of regulation and standards, that would ensure that the environment remains the core consideration, is also seen as a barrier.

Delivering nature recovery alongside nature-based solutions, and drawing investment from sources that might not otherwise be open to such actions, may prove an effective approach. However, this still relies on there being the public money available for these public services. Many public services are struggling to deliver the infrastructure they are required to within the grants received, so additional biodiversity gains alongside these can be difficult.

Whilst this pressure is not something that the LNRS can directly address, by targeting action to where it is most needed, where it will deliver the greatest benefit and where there may be the potential to deliver nature-based solutions, it does mean that the best is made with what little resources there may be. And the county is ready to take advantage of any investment that might be forthcoming, for the benefit of nature recovery.

#### 4.4 Local strategic context for the Kent and Medway LNRS – local plans

To understand the local priorities and plans that already support nature recovery, a thorough review of the area's local plans and any other relevant strategies was undertaken. This was also a chance to see if the LNRS might be able to benefit through collaborative and focussed action. The full details of the review can be found in Appendix 1.1 and a summary is provided below.

## 4.4.1 Opportunities to address shared pressures, threats and challenges at the local level

All areas have growth and development targets, which results in development pressures. Alongside this is the need to provide the infrastructure to support this growth. Despite the desire to deliver this sustainably and with minimal environmental impact, the reality is that development and infrastructure results in land take, habitat fragmentation, wildlife disturbance and a strain on the county's ecosystems.

Flood risk is another significant threat across all the county – whether that be coastal, fluvial or surface water – and this risk increases with climate change bringing more extreme weather. With Kent being a coastal county, it is not surprising that coastal changes, erosion, land loss and flooding are a challenge for many local planning authorities in the county.

Water quality and quantity is another challenge shared by all, with issues with both security of supply and pollution a concern. The impacts of climate change and the effect this has on the population's health, wellbeing, and risks to living conditions are also a threat.

The other pressures, threats and challenges discussed in the section above are experienced by more than one, and sometimes the majority of the district or borough.

Many of the pressures, threats and challenges felt at the local level occur on a landscape scale and often across administrative boundaries. Flood risk management, water supply and pollution and habitat fragmentation are just some of the challenges best addressed on a scale that goes beyond one district. Hence the LNRS provides the shared vision and framework to enable this collaboration and address matters in a functional way, especially where nature-based solutions can offer multiple benefits to multiple districts when implemented at a strategic level.

#### 4.4.2 Opportunities to collaboratively restore, enhance and create habitats

All districts refer to and endorse the aims and objectives of the Kent Biodiversity Strategy 2020<sup>16</sup>, demonstrating an aspiration to maintain, restore and create habitats that are thriving with wildlife and plants, and ensure the county's terrestrial, freshwater, intertidal and marine environments regain and retain good health. Whilst framed slightly differently, the Kent and Medway LNRS will be aiming to achieve the same and provides an updated and spatially framed collaborative approach for nature recovery.

All districts place the same importance of retaining their green and blue infrastructure networks and using management and implementation plans to do so. The majority have a green infrastructure strategy of some form underpinning this, with plans and mapping for how and where these networks can be restored and enhanced. This provides useful evidence for the LNRS in determining where urban greening can provide mutual benefits to both nature and people. The protection of trees and woodlands are a priority shared by most districts and boroughs as well as safeguarding the green gaps between settlements or districts. The LNRS will not only support such aspirations but by framing the important role of green and blue infrastructure in supporting nature recovery, may also open up opportunities for funding and investment to support the enhancement and extension of such natural assets. Further to retention, the county's authorities also aim to create habitat to further strengthen their green and blue infrastructure networks. For many, woodland creation and tree planting is a top priority for habitat creation.

The importance of development integrating green and blue infrastructure is evident throughout the local plans. Incorporating biodiversity into new developments, enhancing the green and blue infrastructure corridors, the use of urban greening, the retention of original trees and hedgerows and new open space provision are some shared approaches. The LNRS can assist these authorities in targeting and focussing such actions on what will deliver the greatest gains for nature and wider benefits for their existing and new local communities.

Plans also recognise the need for development to provide surface water management, water quality and quantity management, and adaptation and mitigation

<sup>&</sup>lt;sup>16</sup> Our Strategy | Kent Nature

of climate change impacts. Where such challenges are restricting necessary housing development, working with nature may provide a solution that also delivers benefits to the local wildlife as well.

Biodiversity Net Gain provides a mechanism by which development can support nature recovery. The LNRS will have a critical role in ensuring that the gains derived through this new, mandatory requirement make a meaningful contribution to the local biodiversity and are directed to where this contribution is most needed. Recognising the potential of Biodiversity Net Gain, several district and boroughs have ambitions to deliver beyond the mandatory 10%; to make the most of this opportunity the strategy must ensure it is fit for the purposes of informing net gain.

#### 4.4.3 Opportunities to support wider environmental goals through nature recovery

Kent and Medway's districts and boroughs all share priorities relating to wider environmental benefits, the most common being good air quality, clean and plentiful water, climate change mitigation and adaptation, enhancement of natural and built, heritage, health and wellbeing and access to, and engagement with, the natural environment. They all also have net zero commitments.

Working with nature, and through the use of nature-based solutions, these priorities can be addressed.

# 4.5 Local strategic context for the Kent and Medway LNRS – other relevant spatial plans in Kent and Medway

In addition to local plans, there are a lot of other strategies, plans and policies in place that can inform and support the development and delivery of the LNRS. These have been reviewed and fed into LNRS as appropriate. An overview is provided in the table overleaf.

Strategy / Plan	Description	Relevance to LNRS
Catchment Flood Management Plans	Flood risk management policies for all types of inland flooding, from rivers, groundwater, surface water and tidal flooding.	Understanding flood risk and opportunities to align nature recovery with natural flood management measures.
High Weald and Kent Downs National Landscape Management Plans	Identifies the key issues, opportunities and threats facing the landscape and sets out aims and principles for the positive conservation and enhancement of the national landscape.	<ul> <li>Opportunities for the LNRS to support and contribute to:</li> <li>the purposes of Kent's protected landscapes.</li> <li>the delivery of the Protected Landscapes Targets and Outcomes Framework, with reference to targets relating to thriving plans and wildlife and mitigating and adapting to climate change (see 4.7.4).</li> <li>the restoration, enhancement and extension of the natural features the national landscape is designated for.</li> </ul>
Joint Health & Wellbeing Strategy	Outlines the priority areas and collaborative action to improve people's health and reduce health inequalities that exist in the county.	Identify the opportunities where wider environmental benefits may support health and wellbeing requirements within the county.
Kent Biodiversity Strategy	Joint strategy for the county's biodiversity, that outlines aims and objectives for the maintenance, restoration and creation of habitats and protection and recovery of species. Sets targets for habitats and species of importance and significance.	Kent Biodiversity Strategy will be superseded by the LNRS. The Biodiversity Strategy is still current and adopted/endorsed by many authorities and bodies within the county, so need to ensure the aspirations of the LNRS align at a minimum.
Kent County Parks Strategy	Aspirations for the country parks service over the next five years.	Large land assets and potential delivery partner, with opportunity to also provide a chance for public to connect with high quality habitats, delivering the ambitions of the LNRS.
Kent and Medway Energy and Low Emissions Strategy	Sets out how Kent will respond to the UK climate emergency, eliminate poor air quality,	Opportunities for nature-based solutions to support delivery.

Strategy / Plan	Description	Relevance to LNRS
	reduce fuel poverty and promote the development of an affordable, clean and secure energy supply across Kent and Medway.	
Kent Minerals and Waste Local Plan	Sets out the vision and strategy for waste management and mineral provision. It also contains a number of development management policies for evaluating minerals and waste planning applications.	Align and enhance policies relating to biodiversity and identify opportunities for nature recovery. As plans are reviewed, the LNRS will be a critical piece of evidence that must be consulted in the preparation of a local plan.
Kent Plan Bee	Pollinator action plan for Kent County Council, relating to how pollinators are considered and provided for throughout the delivery of the council's work and services.	Opportunity to embed pollinator conservation at a strategic level, beyond just an individual authority.
Kent Plan Tree	Kent County Council tree establishment strategy, outlining how the authority will work with partners to improve woodland management and extend tree cover across the county.	Opportunity for the LNRS to support and contribute to aims of the strategy and provide the spatial framework needed for improved management and the targeting of tree establishment.
Local Flood Risk Management Strategy	Identifies objectives to manage local flood risk to local communities from surface water, groundwater and ordinary watercourses.	Understanding flood risk and opportunities to align nature recovery with natural flood management measures.
Local green infrastructure strategies	Identifies opportunities to protect and enhance green infrastructure.	Align policies relating to green infrastructure, in particular that in urban areas, identify local priorities the LNRS can support and identity opportunities where nature-based solutions and green infrastructure can be delivered together for multiple benefits.
Local Plans	Guides how an area will develop in the future – is the main consideration when deciding planning applications. Usually covers housing, employment, shops, areas where development should take place/	Align and enhance policies relating to biodiversity and identify opportunities for nature recovery. As plans are reviewed, the LNRS will be a critical piece of evidence that must be

Strategy / Plan	Description	Relevance to LNRS
	should be restricted and areas to be protected.	consulted in the preparation of a local plan.
NHS Kent and Medway Green Plan	Plan to reduce environmental impact.	Large land assets and potential delivery partner, with opportunity to also provide a chance for public to connect with nature. Nature-based solutions offering opportunities to mitigate environmental impact.
Preliminary flood risk assessment	Gives an overview of flood risk in Kent, identifying areas of significant flood risk, past flood events and future flood risks.	Understanding flood risk and opportunities to align nature recovery with natural flood management measures.
Rights of Way Improvement Plan	Objectives for Kent's public rights of way network and wider public access.	Potential delivery partner, with opportunities for PROW network to support nature recovery through its management and maintenance. Network also provide an opportunity for public to connect with nature
River Basin Management Plans	Set the legally binding locally specific environmental objectives that underpin water regulation and planning activities.	Aligning objectives for freshwater habitats.
Shoreline Management Plans	Identify the most sustainable approach for managing coastal flooding and erosion.	Aligning ambitions for the Kent coast's management, ensuring that future scenarios for coastal change are embedded into LNRS ambitions and potential measures.
Surface water management plans	Projects to investigate local flooding issues and identify options to reduce local flooding.	Understanding flood risk and opportunities to align nature recovery with natural flood management measures.

#### 4.6 National Strategic context for the Kent and Medway LNRS

#### 4.6.1 Environment Act 2021 and Environmental Improvement Plan 2023

The Environment Act 2021<sup>17</sup> sets national targets that all 48 Local Nature Recovery Strategies are expected to contribute to<sup>18</sup>. These include:

- Restore or create in excess of 500,000 hectares of a range of wildlife-rich habitat outside protected sites by 2042, compared to 2022 levels.
- Halt the decline of species abundance by 2030. Ensure that species abundance in 2042 is greater than in 2022, and at least 10% greater than 2030.
- Reduce the risk of species' extinction by 2042, when compared to the risk of species' extinction in 2022.
- Increase total tree and woodland cover from 14.5% of land area now to 16.5% by 2050.
- Reduce nitrogen, phosphorus and sediment pollution from agriculture into the water environment by at least 40% by 2038, compared to a 2018 baseline.

The Environmental Improvement Plan 2023<sup>19</sup> makes further commitments, again that should be supported by the Local Nature Recovery Strategies:

- Work to ensure that everyone in England lives within 15 minutes' walk of a green or blue space.
- Restore approximately 280,000 hectares of peatland in England by 2050.
- Restore 75% of our water bodies to good ecological status.
- Protect 30% of land and of sea in the UK for nature's recovery by 2030.
- Support farmers to create or restore 30,000 miles of hedgerows by 2037 and 45,000 miles of hedgerows by 2050.
- Manage our woodlands for biodiversity, climate and sustainable forestry.
- Restore 75% of Sites of Special Scientific Interest to favourable condition by 2042. By 31 January 2028 50% of SSSIs will have actions on track to achieve favourable condition.
- Ensure delivery & management of actions & policies that contribute towards our 25YEP goals are suitable & adaptive to a changing climate.
- Make sure LNRSs include proposals for Nature-based Solutions which improve flood risk management where appropriate.
- Achieve Good Environmental Status for our seas.
- Reduce emissions of nitrogen oxides by 73% and ammonia by 16% by 2030 relative to 2005 levels.
- Reducing the rates of introduction and establishment of invasive non-native species by at least 50%, by 2030.

 <sup>&</sup>lt;sup>17</sup> Environment Act 2021
 <sup>18</sup> Guidance from Defra on the LNRS contribution to national environmental objectives

<sup>&</sup>lt;sup>19</sup> Environmental Improvement Plan

#### 4.6.2 Delivering 30by30 on land in England 2023

In 2020, the government committed to protecting 30% of the UK's land by 2030  $(30by30)^{20}$  – it will deliver this by:

- Strengthening: ensure effective policy and statutory safeguards and powers are in place to improve management for nature, prevent degradation and ensure appropriate access for people.
- Extending and creating: designate new protected areas and restore or create wildlife rich habitat outside of these.
- Investing: invest in habitat restoration across our protected areas and beyond.

All LNRSs will identify opportunities to create and improve wildlife-rich habitat which could, where protection or agreements for ongoing management are in place, contribute to meeting the 30by30 goal.

#### 4.6.3 Nature Recovery Network

The Nature Recovery Network<sup>21</sup> is a growing national network of wildlife-rich places, stretching from our cities to countryside, mountains to coast. It is supported by green and blue spaces that buffer and connect these wildlife-rich sites.

Growing the network involves prioritising and mapping actions, and with Local Nature Recovery Strategies are at the centre of this. The LNRS' spatially framed proposed actions, when implemented, will contribute to expanding the Nature Recovery Network. And the LNRS partnership framework will facilitate and lead the collaboration necessary to deliver this growth.

#### 4.6.4 Protected Landscapes Targets and Outcomes Framework

The Protected Landscapes Targets and Outcomes Framework<sup>22</sup> sets out targets for National Parks and National Landscapes aimed at supporting Protected Landscapes meet their huge potential for nature, climate, people and place.

LNRSs are noted as an important evidence base to aid effective planning for nature recovery activities as part of the Protected Landscapes' management plans. These activities within National Landscapes should be working towards the following targets, which aim to deliver thriving plants and wildlife:

- 1. Restore or create more than 250,000 hectares of a range of wildlife-rich habitats within Protected Landscapes, outside protected sites by 2042 (from a 2022 baseline).
- 2. Bring 80% of SSSIs within Protected Landscapes into favourable condition by 2042.
- 3. For 60% of SSSIs within Protected Landscapes assessed as having 'actions on track' to achieve favourable condition by 31 January 2028.

 <sup>&</sup>lt;sup>20</sup> Delivering 30by30 on land in England
 <sup>21</sup> The Nature Recovery Network - GOV.UK
 <sup>22</sup> Protected Landscapes Targets and Outcomes Framework - GOV.UK

- 4. Continuing favourable management of all existing priority habitat already in favourable condition outside of SSSIs (from a 2022 baseline) and increasing to include all newly restored or created habitat through Agri-environment schemes by 2042.
- 5. Ensuring at least 65% to 80% of land managers adopt nature friendly farming on at least 10% to 15% of their land by 2030.

#### 4.7 Other influences for the Strategy

Recognising the potential of Local Nature Recovery Strategies to provide for specific species and habitats, a number of nature conservation and species charities and groups have produced guidance for responsible authorities. These include:

- Plantlife How to Design your LNRS to Deliver for Plants and Fungi<sup>23</sup>
- Buglife Delivering for Invertebrates in Local Nature Recovery Strategies<sup>24</sup>
- Amphibian and Reptile Conservation Design your LNRS to Deliver for Amphibians and Reptiles<sup>25</sup>
- Bat Conservation Trust Taking bats into account in Local Nature Recovery Strategies<sup>26</sup>
- Floodplain Meadows Partnership Floodplain Meadows in LNRS<sup>27</sup>
- Bumblebee Conservation Trust Local Nature Recovery Strategies: a guide to help bumblebees thrive<sup>28</sup>
- People's Trust for Endangered Species Our guidance for designing Local Nature Recovery Strategies<sup>29</sup>
- Freshwater Habitats Trust Incorporating small freshwater habitats into your LNRS<sup>30</sup>
- Big Chalk Big Chalk and Local Nature Recovery Strategies<sup>31</sup>

Links to all the documents referred to in sections 4.4 to 4.7 can be found in Appendix 1.2.

<sup>&</sup>lt;sup>23</sup> Design your LNRS to Deliver for Plants and Fungi - Plantlife

<sup>&</sup>lt;sup>24</sup> Local Nature Recovery Strategy Guidance in England - Buglife

<sup>&</sup>lt;sup>25</sup> Design your LNRS to Deliver for Amphibians and Reptiles | Amphibian and Reptile Conservation

<sup>&</sup>lt;sup>26</sup> Taking bats into account in Local Nature Recovery Strategies - Guidance for professionals - Bat Conservation Trust <sup>27</sup> Floodplain Meadows

<sup>&</sup>lt;sup>28</sup> Local Nature Recovery Strategies: a guide to help bumblebees - Bumblebee Conservation Trust

<sup>&</sup>lt;sup>29</sup> Our guidance for designing Local Nature Recovery Strategies - People's Trust for Endangered Species

<sup>&</sup>lt;sup>30</sup> FHT-Small-Freshwaters-Guidance-for-LNRSs.pdf

<sup>&</sup>lt;sup>31</sup> Big-Chalk-LNRS-guidance-note-v1.3.pdf

### 5. Nature recovery opportunities in Kent and Medway

### 5.1 Building on a solid platform of action for nature

The 2021 State of Nature in Kent report<sup>32</sup> showed that when action is joined up, with all organisations playing a role, the outcomes for nature have been dramatic. The report also found that Kent has an extraordinary breadth and depth of skills and experience across the public and third sectors that is at the disposal of nature recovery actions in the county. This resource has been critical to the development of the Local Nature Recovery Strategy, with the Strategy now providing a framework for collaboration and an opportunity to engage the public, private and third sectors in a dynamic way, to leverage funding from all into delivering nature recovery at a scale commensurate with the crisis. This represents not only the most challenging time the conservation of nature has faced in the UK, but also the greatest opportunity, to work differently and bring new resourcing to bear in a way which has not been done before.

Whilst the LNRS provides a renewed focus and new approach to delivering nature recovery in the county, we are not starting from ground zero and there have been many achievements in the county to build on and learn from.

#### 5.1.1 Restoring landscapes<sup>32</sup>

Over the last decade we have seen the conservation community across Kent embrace, and begin to implement, the Lawton principles (2010) through their collective work to drive forward nature's recovery at a landscape-scale. At the heart of the most significant and successful landscape-scale schemes that have been conceived, and subsequently delivered in the county over the last decade, has been an understanding of the value of working collectively and a demonstrable willingness to collaborate.

An example of this can be seen across the Kent Downs landscape, in which a significant proportion of globally-rare chalk grassland resource can be found. Here a suite of landscape-scale partnership projects have been conceived and delivered to reinstate management, and consequently restore and reconnect these nature-rich, chalk grassland habitats. In less than 15 years, projects have collectively restored more than 341 ha of chalk grassland.

Agri-environment schemes have also proved a valuable mechanism for delivering landscape-scale restoration across the farmed landscape. In the East Kent Downs, where, over the last decade, continued engagement of farmers with their local Natural England advisor has resulted in the transformation of 900 ha of formerly arable or species-poor grassland. Through natural regeneration, green hay spreading and the sowing of native wildflower mixtures, these areas are now wildflower-rich habitats.

<sup>&</sup>lt;sup>32</sup> State of Nature | Kent Nature

Supporting land-use change in the farmed landscape remains integral to promoting nature's recovery across the county. The Farmers Cluster model advocated in Kent continues to grow to enable and support collective action from farmers and land managers in discrete geographical areas. An example of this is the Marden Cluster, who are working together to restore and extend lowland meadow, a species-rich but depleted habitat in Kent, across the Low Weald.

Larger conservation organisations in the county have delineated focus areas to create bigger, better, and more resilient landscapes for people and wildlife. Such working between these land owning organisations has allowed the joining of habitats into functionally-linked networks, as has been seen in North Kent and also the Blean complex where Kent Wildlife Trust and RSPB have worked together.

#### 5.1.2 Increasing nature in urban areas<sup>33</sup>

Since 1994, Kent Wildlife Trust and Kent Highways have been working together to create a network of Roadside Nature Reserves across the county. There are now around 150 Roadside Nature Reserves in Kent and Medway, with around 89 km of roadside protected and managed by volunteers across the county, supporting important species and habitats, and providing are also valuable wildlife corridors.

Local initiatives also encourage nature friendly gardening, with advice, support and awards used to encourage action.

There are also a wealth of community, friends of and voluntary groups working tirelessly to manage urban greenspaces for the benefit of both wildlife and people. These groups represent a massive army of support on the ground for the delivery of the LNRS potential measures.

#### 5.1.3 Improving environmental quality<sup>33</sup>

Conservation efforts such as Natural England's Catchment Sensitive Farming Scheme, are helping to improve water quality by reducing nutrients entering water courses through the planting of buffer strips, fencing livestock, and improving farming practices. Such projects, together with improvements at sewage treatment works and regulation changes, have seen 16 rivers in Kent improve their phosphate classifications since 2015 (Environment Agency, 2020).

This reduction in nutrient loading means the impact from lower river flows on water quality will be reduced, which in turn improves river species' ability to withstand the seasonal extremes associated with climate change.

#### 5.1.4 Species<sup>33</sup>

Most nature conservation in the British Isles is focused on the management of habitats, based on the adage 'build it and they will come'. This is certainly true in Kent where much of the county's conservation work has focused on the

<sup>&</sup>lt;sup>33</sup> State of Nature | Kent Nature

management of habitats to improve, enhance and/or extend. Although this provides better and more habitat, this action alone is not always sufficient to prevent threatened species decline or restore populations to their former ranges.

Common habitat manipulation practices including scrub removal, flood management, and creation of islands or floating rafts, coupled with predator management have been successfully applied in Kent to see increases in nesting success of Little Terns at Sandwich Bay and Castle Coote, and Lapwing on the South Sheppey Marshes.

Kent has also seen the translocation of several threatened species that has resulted in improvements in their local conservation status, including Great Crested Newt, European Water Vole, European Beaver, Sand Lizard, Monkey Orchid and the Silver Spotted Skipper.

At a more local scale, the provision of artificial hibernacula, refugia, and nest sites for birds, bats, small mammals, reptiles, and amphibians is widely implemented to mitigate some of the habitat and nest site deficiencies.

#### 5.1.5 Coastal and marine

Some of the most effective Kent and Medway projects and initiatives of the last ten years or so, have been around reducing wildlife disturbance or destruction at the coast though human behaviour change.

Many of these projects have heavily relied on volunteering and another success story demonstrates how effective these volunteer armies can be. The "Coastbusters" were launched in 2012 to tackle the invasives of Pacific Oyster and Wireweed. Trained and kitted out, this taskforce has successfully reduced and stabilised the Pacific Oyster population at the National Nature Reserve at Pegwell Bay and reef formation has been prevented. In addition, loss of an important intertidal mussel bed has been avoided, oyster establishment on adjacent mudflats has not occurred and the protected chalk substrate is maintained.

#### 5.2 Realising the opportunities for recovering nature in Kent and Medway

The Kent and Medway Local Nature Recovery Strategy presents an opportunity to build on these gains and provide a framework for the collaborative and landscapescale action needed to recover nature in the county. It will:

- Consider the landscape character, the catchment functions and ecosystem links across the county.
- Focus on addressing the most significant impacts arising from the pressures and challenges facing nature.
- Ensure our most significant and important habitats, locally and nationally, remain the target of efforts.
- Concentrate on habitats that are threatened in extent and degraded in quality, or are at risk from climate change.
- For the first time in Kent, give detailed consideration to the needs of threatened species within habitat management, identifying bespoke interventions needed

and ensuring that any management considers species requirements within the habitats they're associated with.

- Look at how it can support both the local and national priorities and ambitions for nature, green and blue infrastructure and the wider environment.
- Identify the actions and delivery mechanisms needed achieve the priorities for the county's nature, and target these to the areas of the county that are in most need of action and/or wider benefits can be delivered.
- Maximise opportunities for delivering nature-based solutions by directing action to where the design of nature recovery action can also deliver environmental improvements that are needed in that area.

Part Two of the Kent and Medway Local Nature Recovery Strategy sets out exactly how this will all be achieved.