



Canterbury District Biodiversity Strategy

A Nature Recovery Plan

January 2026 - DRAFT

Foreword

The Canterbury Biodiversity Plan is a document for all of us. Whether you are a farmer, business owner, developer, community group or a resident, this document has been created to bring us all together as we strive to protect and enhance biodiversity across the district. The plan aims to raise awareness, inspire action and bring communities together. In turn, building stronger and better-connected ecosystems that are more resilient to the challenges of the biodiversity and climate crises.

I love living here. We are all extremely lucky to have such a variety of wildlife in the Canterbury District, from our coastlines and marshes to chalk streams and woodlands; there is truly something for everyone to enjoy. Protecting these natural assets into the future is an urgent priority for the council, partners and the whole community. Therefore, this strategy acts as a call to action for anyone reading to get involved and support our attempts to enhance biodiversity, whether it be in your front garden or on a landscape scale!

To build a resilient natural environment, we too must be resilient and adaptable to a changing climate and new emerging threats. Therefore, the Canterbury Biodiversity Plan attempts not to prescribe actions that may be not suitable in 10 years' time, but instead, has been carefully crafted in a way that will still deliver tangible outcomes for biodiversity but with the benefit of being able to grow and reshape to meet the most pertinent challenges of the time.

Six core principles have been created for the strategy, all of which help to build a framework for decision making. These have been developed with several key players, including the Kent Wildlife Trust, Royal Society for the Protection of Birds (RSPB), and the Canterbury Open Space and Biodiversity Group (OSBG). Accordingly, one of these core principles concerns partnership working and reflects the idea that we must all come together to deliver this strategy; it will not be the responsibility of one organisation alone.

This strategy has been developed in response to the ecological declaration made by the council in 2023 and will act as a supporting document to the new Local Plan. This strategy also links to the Kent Local Nature Recovery Strategy which aims to connect natural habitats and aligns with Lawton's Nature Principles: bigger, better, more joined up. Further to this, the council have an obligation to demonstrate they are meeting their Biodiversity Duty, as set out in the Environment Act 2021, this document is a considerable step towards demonstrating that duty.

I am very pleased to introduce this Biodiversity Plan for the district, which will help protect and preserve our natural environment and wildlife for current and future generations.



Cllr Mel Dawkins
Councillor for St Stephens.
Cabinet member for Environment and Climate Change

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Part 1: Our Vision for Nature



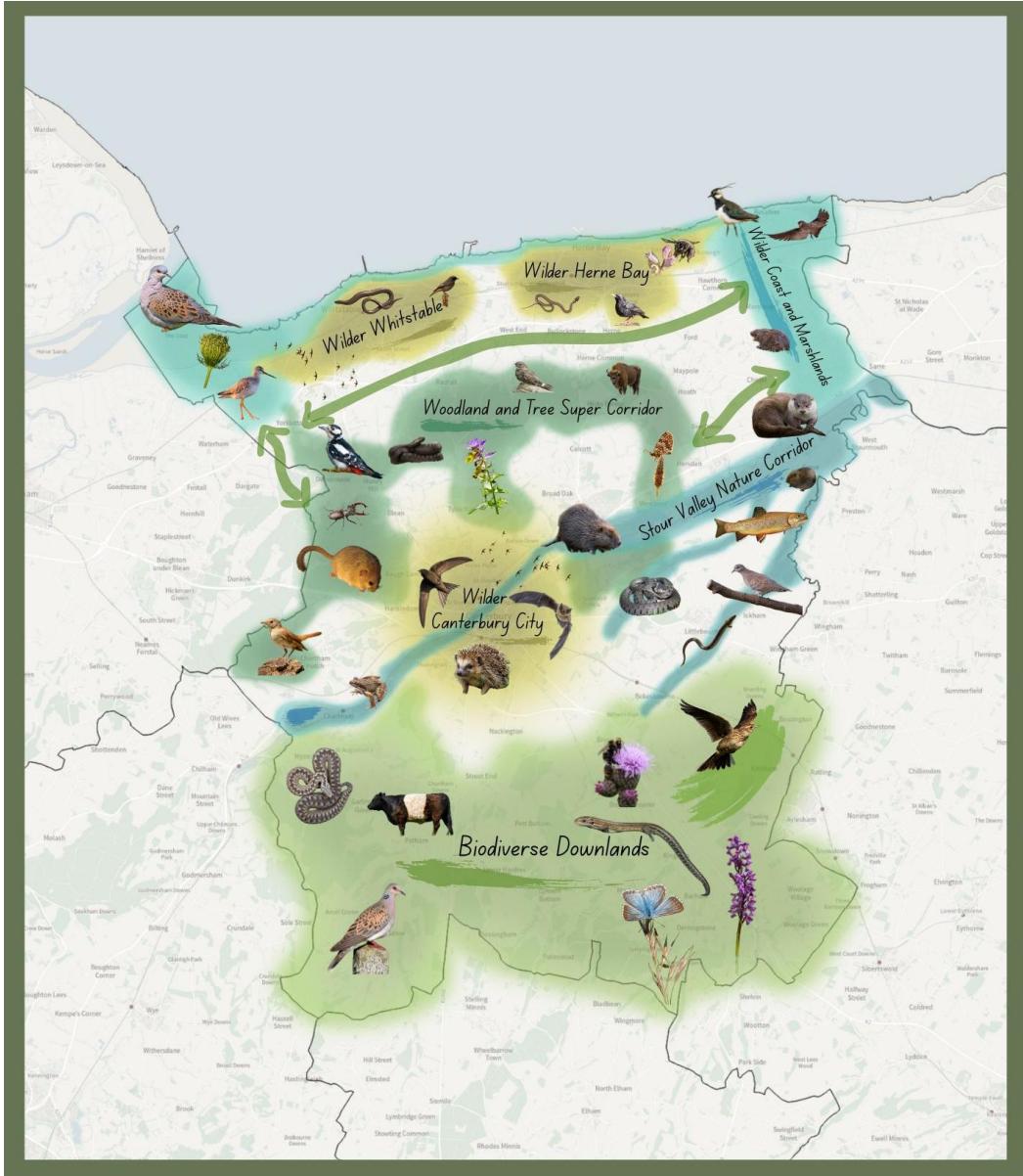
Marbled White Butterfly

Vision

By 2042/43, nature will be thriving across the land, freshwaters and sea of the Canterbury District. The core network of biodiversity-rich areas will be in a better condition, will be supporting species recovery and will be more resilient to climate change. Nature will be better connected across wilder landscapes allowing species to move and expand further. Conserving and enhancing nature will be an integral part of decision-making in all aspects of Canterbury City Council's operations and the land for which it is custodian will support more wildlife. Residents, businesses, partners, communities and developers will all have taken an active role in delivering the strategy and will be playing their part to support further restoration of nature.



Our Vision for a Nature Network¹



Legend

Woodland and Tree Super Corridor

Vision: A hyper-connected network of structurally diverse, ecologically dynamic woodlands (at core), traditional orchards, wood pasture parkland and wilder hedgerows. Connects to Wilder Coast and Stour Valley biodiversity recovery zones.

Wilder Coast and Marshlands

Vision: A hydrologically and ecologically connected, dynamic network of intertidal mudflats, saltmarsh, brackish and freshwater marshes and coastal floodplain grazing marshes that is resilient to climate change and sea level rise.

Stour Valley Nature Corridor

Vision: A continuous corridor of riverine and riparian habitats, including wet woodland, wet meadows, damp scrub habitat, reedbeds and marshes. Dynamic natural processes are encouraged and prioritised, with herbivores, beavers and the Stour itself exerting their influence, often blurring and blending the boundaries between land and water.

Biodiverse Downlands

Vision: A rich tapestry of open downland, scrub-grassland mosaics, woodland copses and belts, traditional orchards, chalk streams and wilder hedgerows. Low intensity herbivore movements drive ecological dynamism and a shifting patchwork of habitats across large areas.

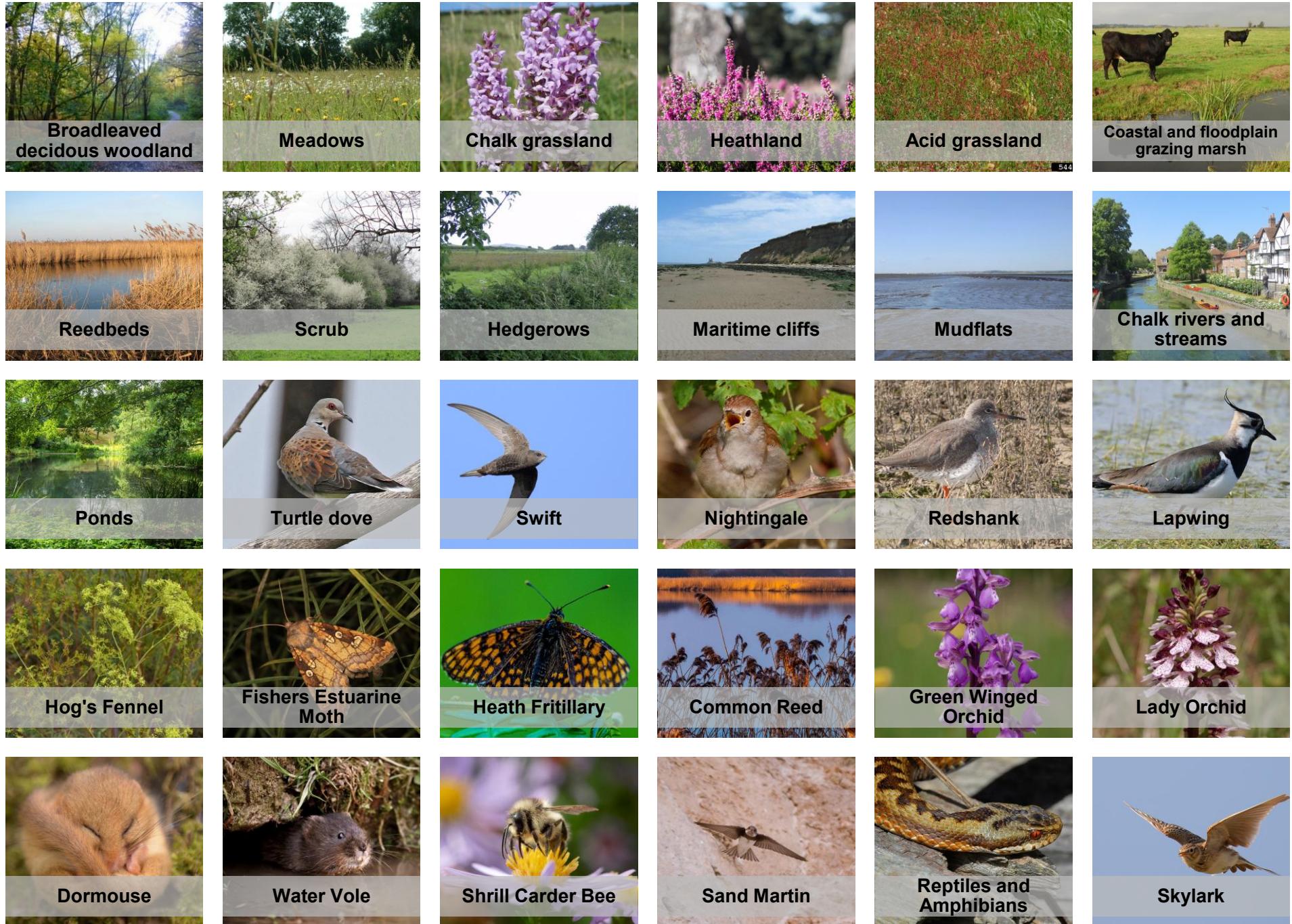
Wilder Whitstable, Wilder Herne Bay and Wilder Canterbury City

Vision: Urban green spaces with diverse, abundant communities of birds, butterflies and other invertebrates. Allotments with wild corners, ponds and thriving populations of reptiles, amphibians, birds and pollinators. New housing schemes that provide homes and habitat for Swifts, Starlings, Hedgehog, Slow Worms and a host of other species. Habitat corridors that weave their way through streets and parks. Biodiverse roofs and pollinator-focussed urban planting schemes that boost bee and butterfly populations. Wild road and rail verges that teem with wildflowers and insects.

Connectivity Target Areas

Creation and enhancement of habitats to further improve connectivity between biodiversity improvement zones.

Flagship Habitats and Species of Canterbury District



The Principles Underpinning this Strategy

The following principles help to provide consistency, a clear sense of direction and a framework to promote robust decision-making and accountability in the strategy's implementation.

Urgency

There is an urgent need to act – the changes will take many years but must start now. The Council's Biodiversity Emergency Declaration in 2023 recognised that human activities are leading to the extinction of animal and plant species at an alarming rate, with scientists predicting a mass extinction due to human activity.

Interconnectedness

The catastrophic loss of biodiversity and the accelerating pace of climate change are interconnected, with striking overlaps between the causes and the consequences of both crises. This strategy will make sure that the Council's actions to tackle biodiversity loss and climate change are developed and implemented in a complementary and coherent manner.

Leadership

The district is privileged to have exceptional wildlife habitat, but this also gives everyone a direct responsibility to look after them. The Council's legal responsibilities and its role as a local planning authority and major landowner means it is placed uniquely to lead nature recovery action across the district.

In Partnership

The Council cannot address the problems single-handedly - the causes of biodiversity loss are far too complex, and actions are needed by many stakeholders. The Council will work with a broad range of partners to tackle the biodiversity crisis. This Biodiversity Strategy has been developed in close consultation with stakeholders and partners, and they will continue to be central to its implementation.

Being Proactive

Action must be prioritised to identify opportunities for expanding and connecting nature-rich areas and to implement action on the ground. This will not happen of its own accord, but requires forward-thinking, long-term commitment and pro-active collaboration between a range of stakeholders.

Responsiveness

The threats facing the natural environment are increasing at an accelerating pace. This strategy must be responsive and the actions adaptable enough to adjust. The strategy will be reviewed regularly to monitor progress and adapt the actions to changing evidence, threats and opportunities.

What will nature recovery look like?

Canterbury City Council will be leading the way by example and will be ambitious in delivering this Biodiversity Strategy. The Council will have embedded biodiversity restoration and enhancement into all its operations and into its decision-making. The land it holds will be in a better condition for nature. It will be an advocate for nature in the district, encouraging everyone to play their part in delivering this strategy.

Communities will be joining people together to enhance their local nature. They will understand the priorities near to them and they will have developed and implemented local projects, with more being planned. They will have enthusiasm for what can be achieved and will be enjoying the results of successful nature recovery. They will be better connected to nature.

Residents will understand and appreciate the nature of the district and what needs to be done to restore it. They will be excited by the possibilities for restoring and enhancing nature and will appreciate improved health and mental wellbeing through being able to access the natural world. They will be taking action to improve nature in their own gardens and through volunteering.

Landowners will understand the part their land could play within the Biodiversity Strategy and what actions they can take to improve biodiversity. Landowners will have already come forward to develop positive enhancement projects and these will be underway. These will showcase what can be achieved, inspiring other landowners to do likewise.

Partners, such as the Kent Wildlife Trust, RSPB, Woodland Trust, the Kent Downs National Landscape, Forestry Commission and others, will develop innovative and ambitious projects for nature recovery. They will be working together and with Canterbury City Council to build on their successes. Even more bold plans will be developed. New partners, seeing the success of the initiatives, will be inspired to act.

Universities, colleges and schools will actively engage in promoting biodiversity on their own land, will carry out research and will provide educational opportunities to increase understanding and appreciation of local wildlife and the natural environment.

Developers will ensure that their development enhances nature, delivering the priorities of this strategy and Biodiversity Net Gain of 20%. They will be ambitious in their plans for nature, proposing and ensuring that nature recovery is considered in all greenspaces in the development through the provision of a range of wildlife habitats. Additional features such as bird boxes, swift boxes and hedgehog highways will contribute to nature recovery. They will recognise the importance of access to nature in their developments and will be ensuring where possible that residents enjoy the benefits of being close to nature.

Businesses will understand how they can contribute to nature recovery and will be acting and seeking opportunities – through funding projects, through supporting their employees to take action and volunteer and by enhancing their premises.

Our Actions

There are 32 actions which take forward the ambition of this strategy. They have been grouped into six areas:

- **Strategic Policy Working** – embedding biodiversity into Canterbury City Council strategy and policy.
- **Partnership Working** – this strategy cannot be delivered by the Environment team alone and will need to be implemented with partners both within and outside of the council.
- **Delivery** – these actions detail some of the additional resources and delivery mechanisms required to implement the strategy.
- **Community Working** – supporting everyone to take actions that deliver improvements for biodiversity is an important way in which this strategy will be implemented.
- **Funding** – these actions detail some of the funding streams which will be sought to delivery this strategy.
- **Audit and Planning** – implementing and adapting policy to the future.

The actions are listed below. Those which are relevant are also included in each of the sections on habitats.

Where s.106 funding is shown (marked by *), these are subject to confirmation.

Action	Lead and Partners	Term	Estimated Cost and Source
Strategic Policy Working			
BA1 Acknowledgement of the Declaration of a Biodiversity Emergency in the new Corporate Plan to promote the value and importance placed on our local biodiversity, for its intrinsic value, as well as the public benefits it delivers across the district and across services.	• Senior Environment Manager • OSBG	Short - Complete	N/a ²
BA2 Consult on the draft Biodiversity Plan for the Canterbury District (a Nature Recovery Plan) to audit current biodiversity position and to unite current environmental strategies including promoting access to nature where appropriate.	• Senior Environment Manager • OSBG • Planning Policy team	Short By February 2026	N/a

Action	Lead and Partners	Term	Estimated Cost and Source
BA3 Champion the Local Plan Reg 18-19 policies, DS27 and DS24 (The Blean Woodlands complex) and securing the delivery of Biodiversity Net Gain at 20%.	<ul style="list-style-type: none"> • Senior Environment Manager • Planning Policy Team • OSBG 	Short By March 2026	N/a
BA4 Undertake a strategic review of landowners' and farmers' willingness to deliver biodiversity actions and present results in the form of a "Willingness Map."	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG • Kent and Medway Local Nature Recovery Strategy (LNRS) 	Medium	N/a
BA5 Commence delivery of strategies: Pollinator Action Plan, Tree and Woodlands Strategy, Open Space Strategy, and the Green Infrastructure Strategy (2017).	<ul style="list-style-type: none"> • Senior Environment Manager • Planning Policy Team • OSBG 	Short	N/a
Partnership Working			
BA6 Support the Kent Downs National Landscape's enhanced duty to further the aims of the National Landscape.	<ul style="list-style-type: none"> • Senior Environment Manager 	Short	CCC £5,000 p.a.
BA7 Work with the Wilder Blean Partnership to address habitat fragmentation and nature recovery.	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG 	Medium to Long	N/a
BA8 Work in partnership to promote biodiversity opportunities along the Great River Stour and explore the concept and establishment of a possible Great Stour Regional Park (Stour Valley Restore).	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG 	Medium to Long	External - £1.5m S.106 - £50,000*
BA9 Support partnership opportunities for landscape-scale works within the Wantsum Channel, connections to The	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG 	Medium	N/a

Action	Lead and Partners	Term	Estimated Cost and Source
Blean and Pegwell Bay E3 initiative, and Canterbury to Coast.			
BA10 Partner with Foreshore Services on marine biodiversity and environment related initiatives.	<ul style="list-style-type: none"> • Senior Environment Manager / Foreshore Manager • OSBG 	Short to Medium	N/a
BA11 Seek opportunities to promote the management of the transport network, walking and cycling and public rights of way for habitat conservation, including the opportunity for green bridges.	<ul style="list-style-type: none"> • Senior Environment Manager / Foreshore Manager • OSBG 	Medium	N/a
BA12 Support initiatives and projects promoting the health of all our waterways and ensuring nutrient neutrality, including working with Natural England to support their restoration of Stodmarsh.	<ul style="list-style-type: none"> • Senior Environment Manager / Foreshore Manager • OSBG 	Short to Medium	N/a
Delivery			
BA13 Support Tree Officer in promoting and delivering the Canterbury Hedge and tree planting initiatives across the district.	<ul style="list-style-type: none"> • Senior Environment Manager 	Short	CCC - £17,500 (Y1 and Y2)
BA14 Support biodiversity and community outputs delivered by the Kentish Stour Countryside Partnership (KSCP) by doubling volunteer task days on council owned sites and increasing KSCP's support / training for Friends of Groups.	<ul style="list-style-type: none"> • Senior Environment Manager 	Short	CCC - £5,000 p.a.
BA15 Facilitate the positive land management and the delivery of biodiversity outcomes at the Old Park and Chequers Wood, and surrounding land.	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG • Friends of Old Park & Chequers Wood 	Medium to Long	CCC – tbc s.106 – tbc* CIL - tbc

Action	Lead and Partners	Term	Estimated Cost and Source
BA16 Grant aid the delivery of new biodiversity projects - £15,000 per annum – to further nature recovery across the district.	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG 	Complete	CCC - £15,000 p.a.
BA17 Maximise opportunities for Biodiversity Net Gain delivery on Canterbury City Council sites with associated 30 years conservation covenants / funding.	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG 	Short to medium	CCC - £15,000 (Y1 and Y2)
BA18 Support Contracts and CANENCO's delivery of biodiversity positive grounds maintenance through provision of training and increased awareness.	<ul style="list-style-type: none"> • Senior Environment Manager • Contracts Manager • Canenco manager • OSBG 	Short to medium	N/a
BA19 Support opportunities across the district for habitat creation/defragmentation through natural regeneration.	<ul style="list-style-type: none"> • Senior Environment Manager 	Ongoing	External - £5m s.106 - £0.5m*
Community Working			
BA20 Establishment and management of new Community Gardening/ Biodiversity initiatives.	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG 	Medium	N/a
BA21 Work with the Canterbury Riverside Group to deliver the Canterbury Riverside Strategy.	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG 	Ongoing	s.106 - £100,000* External - £100,000
BA22 Continue to support and advise Friends of Groups across the district and establish new groups where there is demonstrable need and/ or demand.	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG 	Ongoing	N/a
BA23 Where appropriate seek cooperation with Canterbury District Biodiversity Network.	<ul style="list-style-type: none"> • Senior Environment Manager • CBDN 	Ongoing	N/a

Action	Lead and Partners	Term	Estimated Cost and Source
Funding			
BA24 Support Tree Officer in promoting and securing external grants.	<ul style="list-style-type: none"> • Senior Environment Manager • Climate Change Principal Policy Officer 	Short	CCC - £30,000 p.a.
BA25 Support council's services and teams in developing external funding bids to bring in added resources to deliver biodiversity goals.	<ul style="list-style-type: none"> • Key Strategy Group 	Short	N/a
BA26 Consider potential for partnership led external funding strategies for key initiatives / sites including: (a) Old Park and Chequers Wood, (b) The Wantsum initiative, and c) Seasalter Levels.	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG 	Short - medium	N/a
BA27 Explore opportunities to deliver landscape scale biodiversity through the Community Infrastructure Levy.	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG 	Short	N/a
Audit and Planning			
BA28 Review the management of land owned by the council, the universities, schools, Housing Revenue Account, MoD, and hospitals, and promote biodiversity measures such as pollinators.	<ul style="list-style-type: none"> • Senior Environment Manager • Climate Change Principal Policy Officer • OSBG 	Short (assess), Medium (delivery)	N/a
BA29 Review provision of Local Nature Reserves in relation to growing population. Complete audit and then prioritise action.	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG 	Short	N/a
BA30 Resource the enforcement of best practice tree planting and maintenance on all development sites.	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG 	Medium	N/a

Action	Lead and Partners	Term	Estimated Cost and Source
BA31 Make maximum use of the opportunity to enhance biodiversity and improve habitat connectivity in planning decisions.	<ul style="list-style-type: none"> • Senior Environment Manager • OSBG 	Ongoing	N/a
BA32 Consider adaptive measures (species selection, land management / use) to mitigate against the impacts of climate change and embark on initiatives to achieve Wilder Canterbury City and Wilder Whitstable and Wilder Herne Bay.	<ul style="list-style-type: none"> • Senior Environment Manager • Climate Change Principal Policy Officer 	Medium	N/a

Part 2: About this Strategy



The Need for this Strategy

Our natural world is under pressure as never before. There is a need to take urgent action to halt the decline and to expand and increase biodiversity. With a changing climate, nature will continue to be put under pressure – and it is not in a fit enough state to be able to adapt.

The catalyst for this strategy was the unanimous adoption of a Biodiversity Emergency Declaration by Canterbury City Council on 19 October 2023. This followed the adoption of a Climate Change Emergency Declaration in July 2019. There is a need, and an opportunity, to address the biodiversity crisis and the climate crisis together. The Council is committed to leading the way for nature recovery in the district.

The State of Nature in Kent report (2021) showed that nature is under increasing pressure. It showed that many factors are responsible for a historic and continuing decline in nature – the direct loss of habitats to development and infrastructure, intensification of farming, pollution, a decline in managing land to support nature and invasive non-native species. The areas of habitat which remain are often small and isolated from each other, making them more vulnerable and meaning that nature cannot move between them.

The State of Nature report identified development as a source of pressure. Not only does development directly use land, but the resulting increased population also creates demands for transport and other infrastructure, for water, food and other materials. These all put further pressure on nature. Collaborative

action is needed to combat these pressures and make positive changes for nature - and this needs to start immediately. The report also recommends that councils adopt a 20% Biodiversity Net Gain (BNG), above the Government's 10% requirement, due to these pressures in Kent.

There have been other recent changes which have also driven the need for this strategy. The Environment Act 2021 brought in two new responsibilities for all councils and this strategy will support Canterbury City Council's ongoing work in these areas. BNG became mandatory for some new development in 2024. BNG is a way of creating and improving biodiversity through requiring certain developments to have a positive impact ('net gain') on biodiversity. As highlighted in this strategy the district has historically suffered from a decline in biodiversity, and it is critical that this is reversed quickly. The Biodiversity Emergency Declaration calls for urgent action to address this and, reflecting the pressures identified in the State of Nature in Kent report, and the vision and aims of this strategy and other council strategies (such as the Green Infrastructure Strategy and Pollinator Action Plan), Canterbury City Council is adopting a 20% net gain requirement for new developments in the district through its new Local Plan.

The Environment Act 2021 also means that the Council³⁰⁸ to further nature and to report on actions.

This strategy sets out the range of biodiversity of Canterbury District and what needs to be done to protect it and to take forward nature recovery. The strategy will guide many aspects of the Council's work and decision-making. It will provide supporting

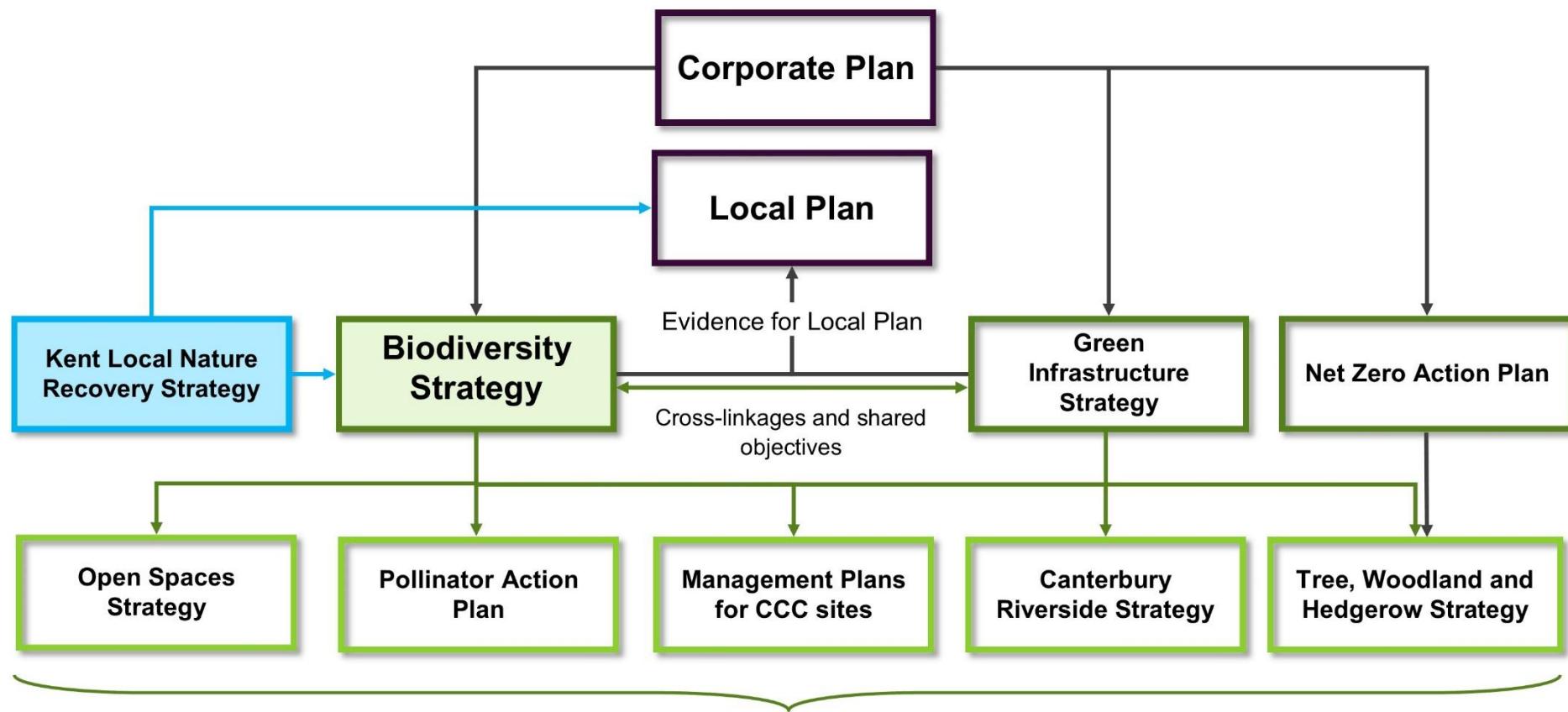
evidence for the forthcoming Local Plan. It complements the Kent Local Nature Recovery Strategy.

The Council cannot achieve an increase in nature in the district alone - many of the negative pressures which operate on nature are outside its control. The Council will use this strategy as a catalyst for action from everyone in the district – residents, communities, landowners, businesses and partners.

Strategic Context (Biodiversity)

Canterbury’s Biodiversity Strategy is an important strategic document for the council. It provides evidence for the Local Plan and sits alongside the Green Infrastructure Strategy, with which it shares objectives.

Several strategies sit below the biodiversity strategy and deliver shared objectives and additional actions to meet the strategy's overall ambition. The shared objectives and how each of the main strategies deliver these is shown in the table on the next page.



These strategies deliver and provide more detail on strategies above them in the hierarchy. There are cross-linkages between them and shared objectives.

Shared Objectives

Shared Objective	Biodiversity Strategy	Green Infrastructure Strategy	Pollinator Action Plan	Tree, Woodland and Hedgerow Strategy	Canterbury Riverside Strategy
Protecting habitats and species	The strategy sets out to protect biodiversity habitats and species. It aims to further embed biodiversity protection in CCC policy. It sets out to designate more sites as LNRs / Village Greens.	Actions to enhance nature in terrestrial, freshwater and coastal habitats. Actions to protect freshwaters.	Protecting and improving pollinator habitats. Raising awareness and protecting habitats of rare pollinators.	Protecting trees, woodlands and hedgerows, especially ancient woodland. Encourage woodland management to support nature. Conversion of coniferous plantation to broadleaved woodland.	Sets out need and actions to protect habitats and species in and adjacent to the River Stour.
Connecting and expanding habitats and species	The strategy sets out a strategic vision for a nature recovery network. This details the core sites and the connections needed to expand habitats and species.	Sets out strategic green and blue infrastructure linkages for the whole district as well as for Whitstable, Herne Bay and Canterbury City. Includes actions around urban greening and linking urban to rural areas. Includes cross-boundary linkages.	Action to identify pollinator corridors. Trialling a pollinator pathway along the River Stour.	Increase canopy cover, especially in areas where this is below the Kent average. To increase trees, woodlands and hedgerows where these will connect habitats. Encourage natural regeneration of trees.	Improves connections along this important blue-green corridor and chalk river, including through the urban area. Removal of barriers for fish passage.

Shared Objective	Biodiversity Strategy	Green Infrastructure Strategy	Pollinator Action Plan	Tree, Woodland and Hedgerow Strategy	Canterbury Riverside Strategy
Positive action on Canterbury City Council's estate	Through this strategy Canterbury City Council has committed to improving biodiversity management across its sites.	Includes actions to manage CCC owned sites for biodiversity; including nature areas and other greenspaces and parks.	Range of actions to increase the value of CCC-owned land for pollinators, including planting and changing management regimes.	Ensure all council-owned trees and woodlands are managed and as resilient as possible. Any trees which need to be removed will be replaced. Tree planting in greenspaces and parks.	Several riverside sites owned by CCC. Some designated as Local Nature Reserves and managed for nature.
Climate change adaptation and mitigation	Climate change vulnerability is detailed for each of the habitats. Actions in this strategy will help habitats and species to adapt to a changing climate.	Includes actions for tree planting. Sets out strategic corridors - connected habitats will allow species to adapt to climate change.	Delivery of Plan will support pollinators in adapting to climate change. Action to embed needs of pollinators in climate change impact assessments.	Sequestering carbon by increasing trees. Highlighting need for species variation to adapt to climate change, and threats to trees and woodlands.	A river corridor which is well-connected and with thriving biodiversity will be more resilient to climate change. Sets out actions for adaptation to climate change impacts.
Good outcomes from development	The actions in this strategy set out to embed consideration of biodiversity with planning, with strengthened planning policy and reference to the Local Nature Recovery Strategy.	The Green Infrastructure Strategy is evidence for the Local Plan and guides outcomes required from development.	Objective to use the planning system to better protect pollinators and to increase and connect habitats. Embedding pollinators in Local Plan evidence documents and Biodiversity Net Gain.	Deliver more street trees in new development. New homes to provide 20% tree cover. Work with developers to fund tree planting projects. Include trees in Biodiversity Net Gain.	Strategic plan and design guide for development in proximity to the river. Using developer contributions to fund delivery.

Shared Objective	Biodiversity Strategy	Green Infrastructure Strategy	Pollinator Action Plan	Tree, Woodland and Hedgerow Strategy	Canterbury Riverside Strategy
Grassroots and community action	Community action for biodiversity is an important way that this strategy will be delivered. Actions are included to support communities.	Community action is an important mechanism to deliver the strategy. Strategy includes actions to increase access to nature for communities.	Encouraging others who own land to improve it for pollinators. Setting up shared equipment. Providing information for those wishing to support pollinators.	Involving parishes to develop action plans for tree expansion. Communities and volunteers developing tree projects. Setting up tree knowledge hub to support local action.	Working with several Friends groups and community organisations along the river.
Working in partnership	This strategy must be delivered in partnership. There are several strategic and ambitious partnerships which will be taken forward.	Includes actions to work in partnership, including in The Blean, at Seasalter and to deliver larger projects.	Work alongside Kent County Council, landowners, parish council and others to deliver actions for pollinators.	Working with landowners to develop increases in trees, woodlands and hedgerows.	Working in partnership with the Environment Agency and landowners.

What is needed for Nature Recovery?

The independent review of England's wildlife sites and ecological network 'Making Space for Nature' ('The Lawton Review', 2010), under the leadership of Sir John Lawton, starkly concluded that biodiversity habitats do not form a coherent and resilient ecological network that is capable of responding to the challenges of climate change and other pressures.

It is no longer enough to preserve nature in small, isolated sites and call them 'nature reserves'. Wildlife populations need to increase, and species need to be able to move across the landscape. For this a **local nature recovery network** – a series of connected spaces, like the Woodland and Tree Super Corridor, and places across the whole landscape, like Wilder urban areas and the Stour Valley Nature Corridor, where nature can thrive – is needed.

This was summarised by the Lawton Review as: 'More, bigger, better and joined up.' The goals of 'more, bigger, better and joined up' form the foundation of Canterbury District's Biodiversity Strategy.

Creating a local nature recovery network needs planning at a strategic scale. The actions need to address five areas:

Quality

Improve the quality of sites which already support nature through managing them better for nature. The core network of protected biodiversity sites must be in a good condition as these are the reservoirs from which nature can spread.

Size

Increase the size of current wildlife sites and make them larger.

Connections

Connect across the landscape. Improve the connections between sites through corridors or 'stepping stone' sites of habitats and areas. This means that nature can move and populate different areas.

Creation

Create new sites – New habitats will need to be created – to extend sites, to link sites or to create wildlife corridors.

Reduce pressures

Reduce the pressures on wildlife by improving the wider environment. This includes buffering wildlife sites, which means making sure that the areas around wildlife sites are managed to help to protect them and to increase biodiversity.

How this Strategy has been Developed

Creating this strategy has been a collaborative process. It has been guided by the Canterbury Open Spaces and Biodiversity Working Group which includes elected Canterbury City Council members along with the Kent Wildlife Trust and the RSPB.

Our vision for nature recovery across the district is shown on page 5. To form this a range of evidence has been reviewed and has been combined with local knowledge.

The internationally, nationally and locally designated sites which are important for nature form the Core Biodiversity Network shown in Plan 5 on page 31.

Natural England Priority Habitat Inventory data and Natural England Habitat Network mapping has been reviewed. This is important data which the council needs to have to ensure it is fulfilling its legally required biodiversity duty.⁴ The Kent Habitat Survey (2012) has also been reviewed to highlight habitat areas which aren't included in the Natural England Priority Habitat Inventory. Draft outputs from the Kent and Medway Local Nature Recovery Strategy have also been reviewed.

Other Canterbury City Council strategies have also been referenced. Shared objectives across these strategies are shown on page 19.

Kent and Medway Local Nature Recovery Strategy

The Kent and Medway Local Nature Recovery Strategy (LNRS) sets out five purposes. This Canterbury strategy also delivers these five purposes at a local level:

- A set of agreed, ambitious priorities for nature recovery.
- Practical and deliverable potential measures that will deliver on these agreed priorities.
- A 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.
- A shared vision for nature recovery and the use of nature-based solutions in Kent and Medway.
- A framework for join-up action, developed with those who will be instrumental in its delivery.

Implementation

Delivering the vision of this strategy to make a significant improvement to biodiversity in the Canterbury District will require the efforts of many people and organisations. While Canterbury City Council can commit to delivering the actions, fully realising the ambition will need partners, local communities, landowners, schools and colleges, businesses and many more to set ambitious targets, work together and to take action.

Wildlife is all around us, in urban areas too, and gardens can make an important contribution to supporting biodiversity. Local communities can develop projects to green their local school or park, to carry out tree planting, clear out their local watercourse or provide more areas for pollinators.

- Volunteering for biodiversity projects
- Existing community groups develop biodiversity projects
- Learn more about local nature and how to conserve and support it
- Carry out nature surveys
- Help to draw up biodiversity plans for your area
- Wildlife gardening
- Set up community groups

Individuals and Communities



Parish Councils



- Develop local action plans and projects for biodiversity
- Encourage the inclusion of biodiversity in Neighbourhood Plans
- Increase biodiversity on parish council owned land
- Bring local communities together to improve biodiversity
- Seek funding for biodiversity projects

Monitoring

Progress against the actions in this strategy will be reported to the Open Space Biodiversity Group twice a year. The strategy will be reviewed after 5 years, in 2030, and updated as necessary.

- Sponsoring local biodiversity projects
- Improving nature in business premises
- Staff volunteering for biodiversity
- Sourcing sustainable products

Business



- Entering agri-environment schemes to increase biodiversity
- Managing and restoring existing habitats
- Working to support species, for example farmland birds
- Joining up hedgerows

Landowners and land managers



- Bring partners and communities together to work towards a common vision for biodiversity
- Set the lead for increasing action for biodiversity across the district
- Deliver the actions in this strategy
- Ensuring biodiversity is protected in council policy, including the Local Plan
- Seek funding to deliver this strategy
- Increase biodiversity on CCC owned sites

Canterbury City Council



- Trees in school grounds
- Carry out environmental education activities
- Take children to experience nature
- Improving school grounds for nature
- Raising awareness of nature and local wildlife

Schools



Part 3: An Overview of Canterbury District



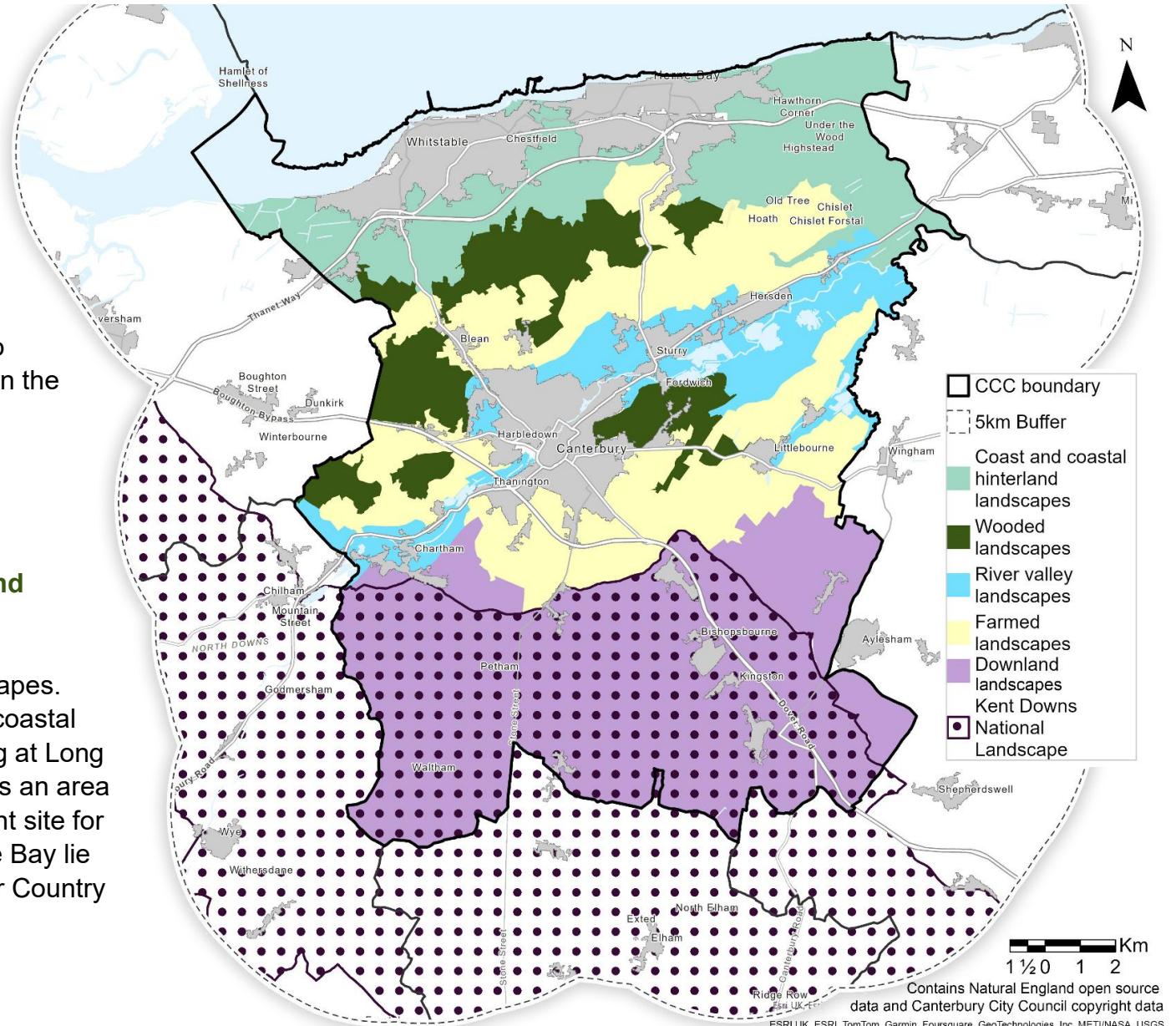
The Landscapes of Canterbury District⁵

From the coast in the north, through the extensive woodland of The Blean, through the river valley of the River Stour to the downlands of the south to the Wantsum Channel in the east - the landscapes of Canterbury are diverse. This, in turn, helps to support the wide range of biodiversity found in the district.

The landscapes of Canterbury run in broad sweeps across the district.

Overview of Coastal and Coastal Hinterland Landscapes

To the north of the district are coastal landscapes. Some undeveloped areas remain within the coastal towns of Herne Bay and Whitstable, including at Long Rock which lies between the two towns and is an area of shingle and wet grassland and an important site for bird species and moths. To the east of Herne Bay lie Bishopstone and Beltinge Cliffs and Reculver Country Park.



Plan 1: Overview of Landscapes of Canterbury District

To the west of the towns at Graveney and Seasalter and along the eastern boundary bordering the Wantsum Channel is a low-lying, open landscape of grazing marshes and ditches which is important for overwintering birds.

To the south of the towns is a transitional landscape between the coast and The Blean woodlands, of undulating mixed arable lands with trees, hedgerows and some small pastures. This landscape is experiencing urbanisation from development and the intrusion of the A299, which creates a barrier for some wildlife, although there is one green bridge across the road at Chestfield Golf Course.

Overview of Wooded Landscapes

The Blean woodland complex is the most extensive of the wooded landscapes in southern England. The Blean lies on higher ground between the City of Canterbury to the south and the coast and coastal towns to the north, extending from the edge of the Wantsum Channel to the east to north of Chartham in the west. The woodlands here are extensive and, in part, well-connected and full of wildlife. Many of the woodlands are ancient meaning they are over 400 years old. Large areas are protected by national and international designations and owned and managed by conservation charities. There is an active project (The Wilder Blean) being taken forward with conservation partners and landowners to restore and connect habitats across The Blean woodlands.

Another wooded landscape lies to the east of Canterbury City. Chequers Wood and Old Park SSSIs are on the eastern outskirts of Canterbury City and valuable mosaic of ancient woodland, scrub and acid grassland. Further to the east are the woodlands, coppice and ancient deer park around Trenley Park Woodlands.

Overview of River Valley Landscapes

The Great Stour River cuts across the Canterbury District, entering at Chartham, flowing through the City of Canterbury and bringing nature into the city itself. The Little Stour is a much smaller river which flows from Littlebourne to join the Great Stour around Grove. The upper reaches are the Nailbourne – a river which only sporadically flows and which is sometimes dry. Both rivers are very rare chalk rivers.

Alongside the rivers are floodplain meadows, woodlands, including pockets of rare wet woodland, orchards, pastures and lakes formed from former gravel workings.

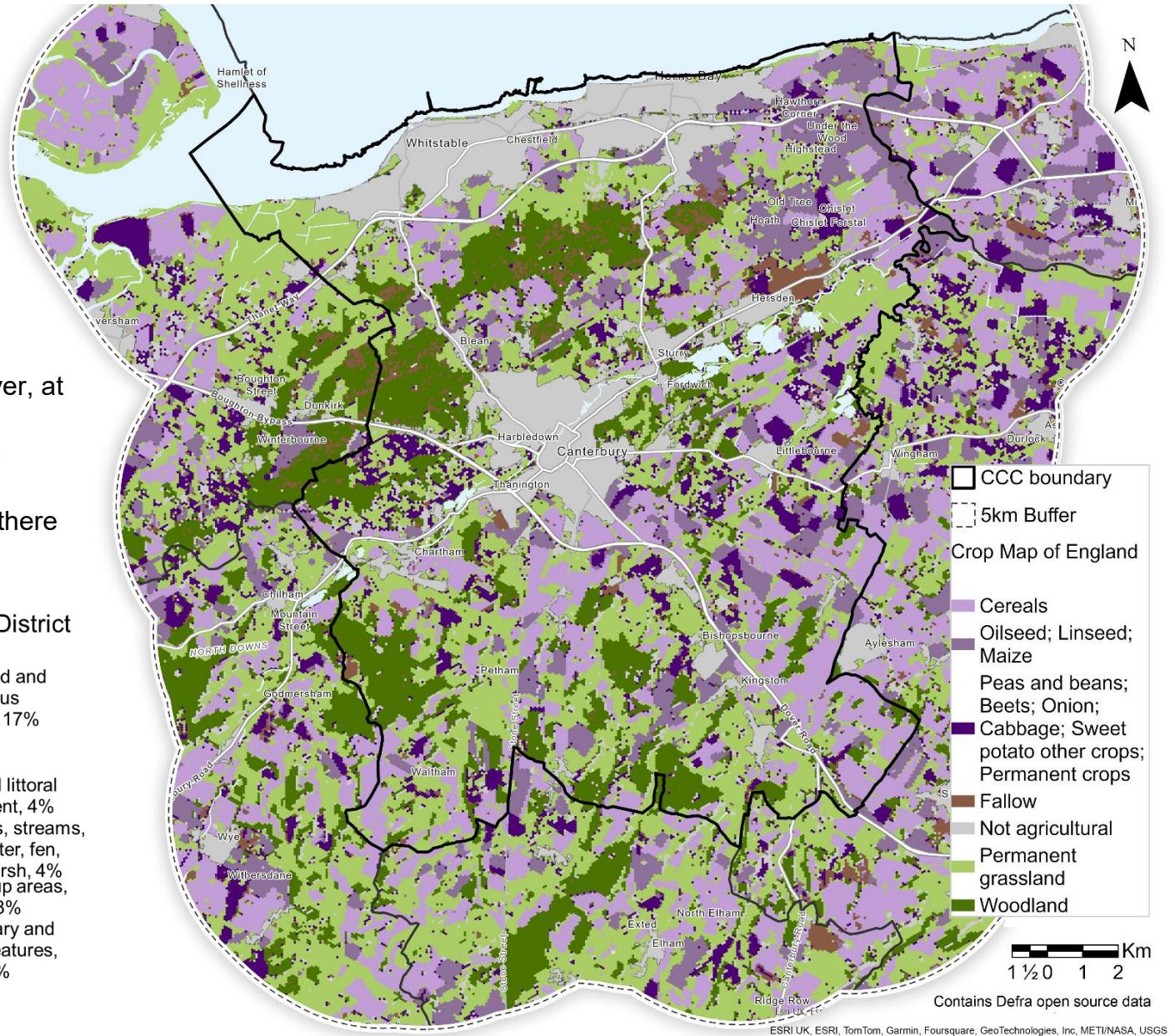
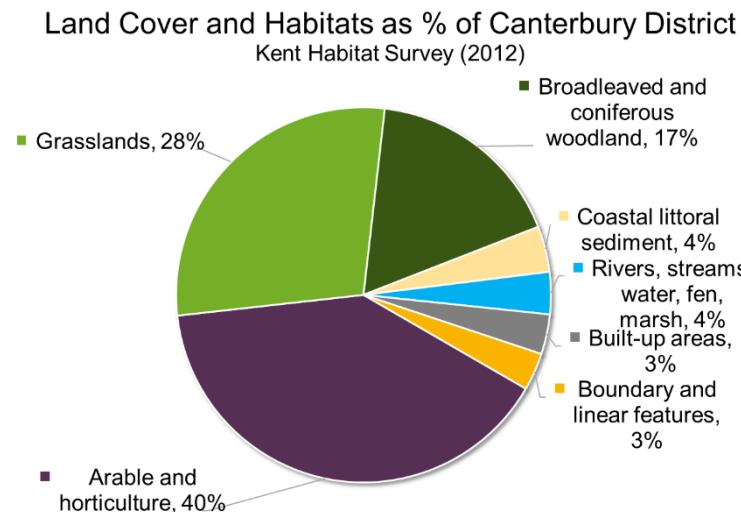
Overview of Downland Landscapes

In the south of the district are the downland landscapes. Part of this area is recognised for its outstanding landscape beauty and is within the Kent Downs National Landscape. The downlands are a landscape of rolling hills and valleys, extensive woodland and hedgerows, especially on the western side of Canterbury District. It is here that there remain small areas of chalk grassland with their numerous orchids and other wildflowers, along with ancient woodlands. The eastern side is more open, with areas of large arable fields.

Land Cover

The Kent Habitat Survey (2012) recorded that around 40% of the district is under arable and horticultural management (growing crops and fruit). As shown in Plan 2, most of this is in the eastern part of the district and south of the City of Canterbury.

Grasslands are the next highest land use cover, at 28%. These are to the north of the City of Canterbury and along the western side of the district and in the Kent Downs National Landscape. These are also the areas where there are the most woodlands.



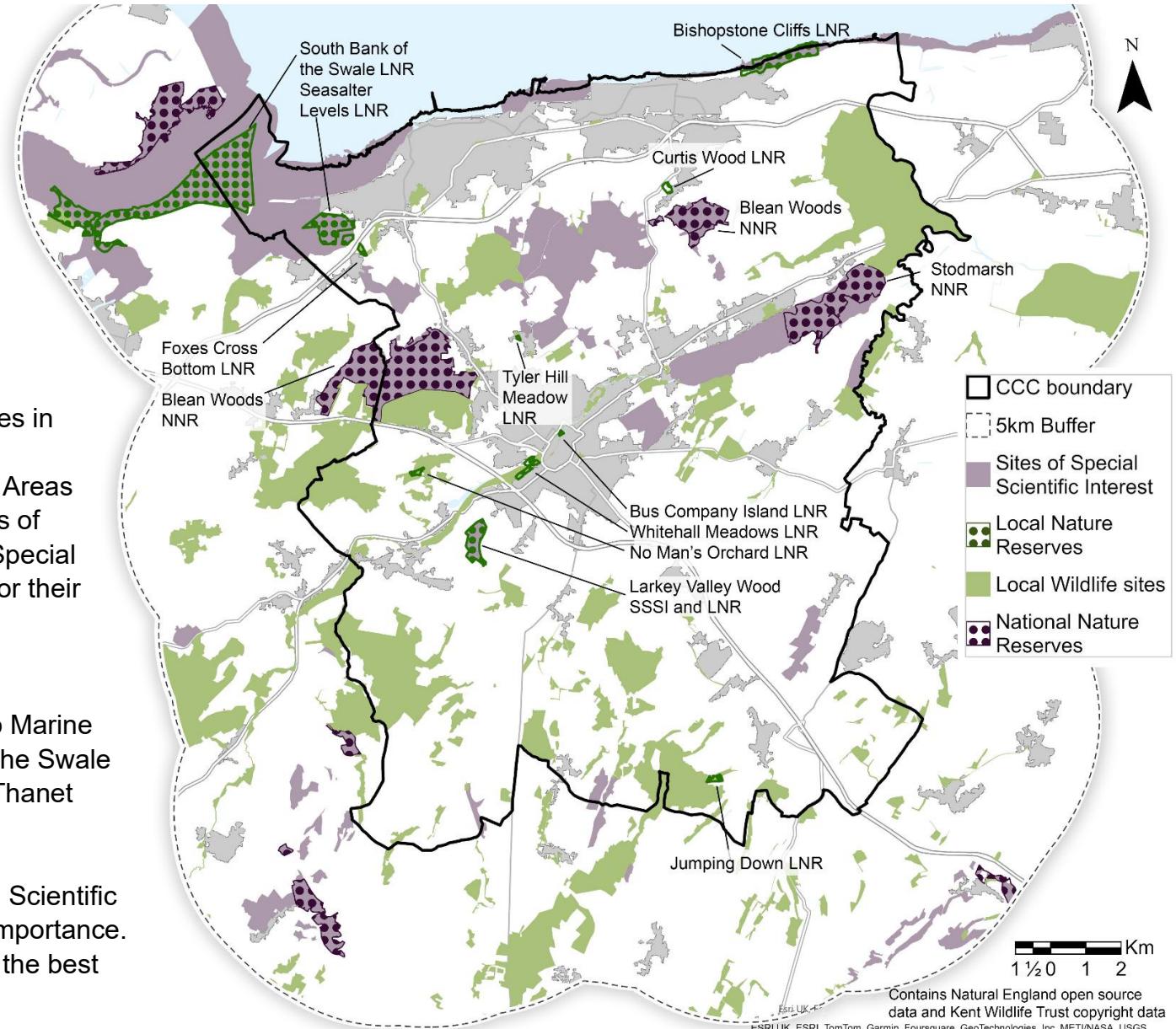
Designated Nature Sites

The richness of Canterbury's biodiversity is recognised in the number of sites which are designated for their nature conservation interest at a local, national and international level. Some sites fall within several designations.

Internationally Important Sites: Several sites in Canterbury District are designated for their international significance. Special Protection Areas (SPA) are protected to safeguard the habitats of migratory and particularly threatened birds; Special Areas of Conservation (SAC) are protected for their habitats and Ramsar sites are wetlands of international importance.

Marine Conservation Zones: There are two Marine Conservation Zones in Canterbury District. The Swale Estuary Marine Conservation Zone and the Thanet Coast Marine Conservation Zone.

Nationally Important Sites: Sites of Special Scientific Interest (SSSIs) are of national biodiversity importance. National Nature Reserves (NNRs) represent the best examples of SSSIs.



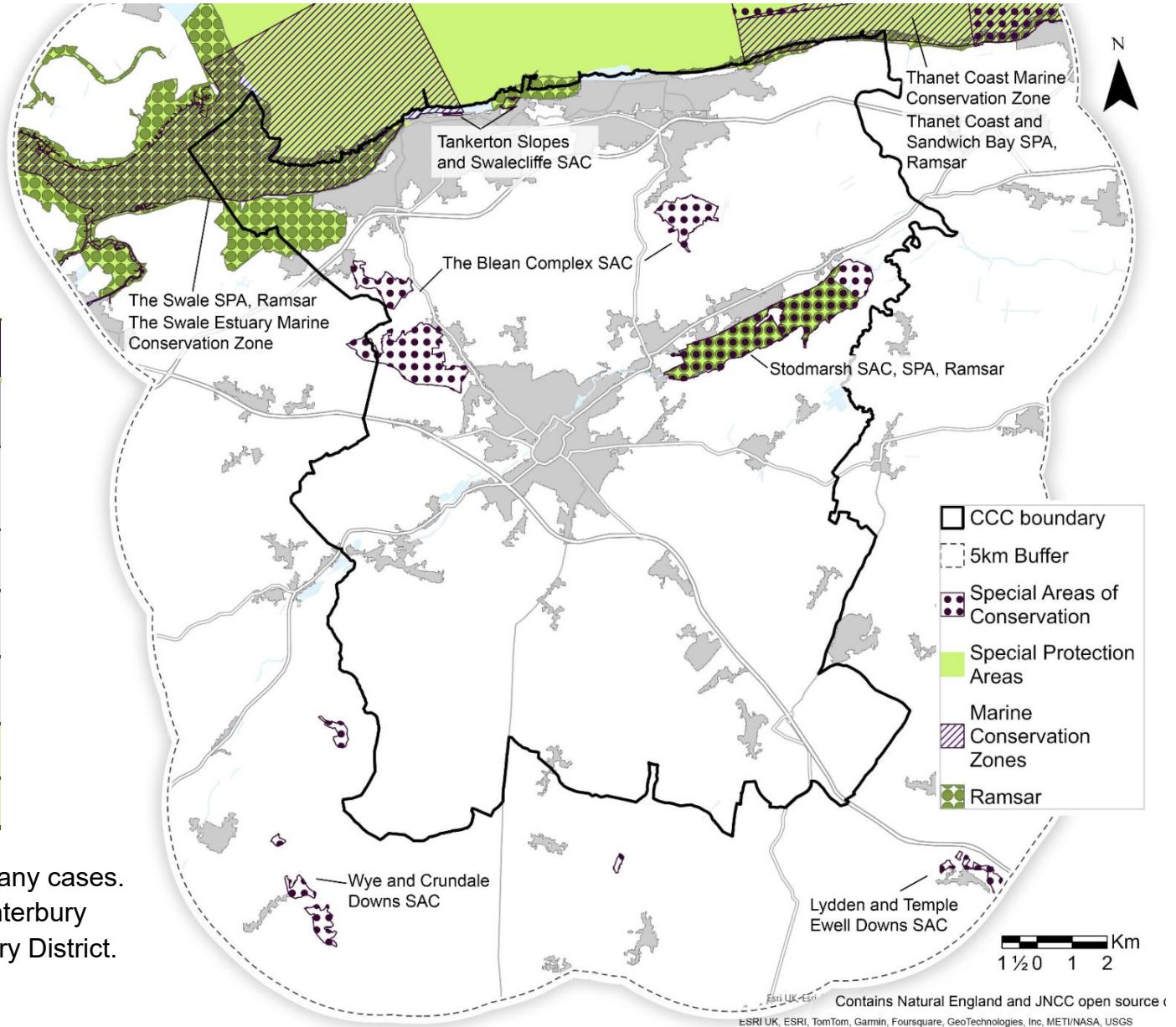
Plan 3: Overview of Internationally Designated Sites

Locally Important Sites: Local Nature Reserves (LNRs) are locally designated sites which are important for people and wildlife. There is usually public access. Although not designated, Local Wildlife Sites are also sites which are identified as being of local significance for nature.

Summary of Designated Sites

Designation	Number	Area in District
Sites of Special Scientific Interest	14	3,601 ha
Special Area of Conservation (overlaps SSSI's)	3	1760 ha
Special Protection Area1 (overlaps SSSI's)	3	1069 ha
Ramsar (some overlap SSSI's)	3	1083 ha
National Nature Reserve (overlaps SSSI's)	2	708 ha
Local Nature Reserves (some overlap SSSI's)	11	401 ha
Local Wildlife Sites	49	3,953 ha

The designations totalled above overlap in many cases. The total of land designated for nature in Canterbury District is 7584 hectares, or 22% of Canterbury District.



Plan 4: Overview of Nationally and Locally Designated Sites

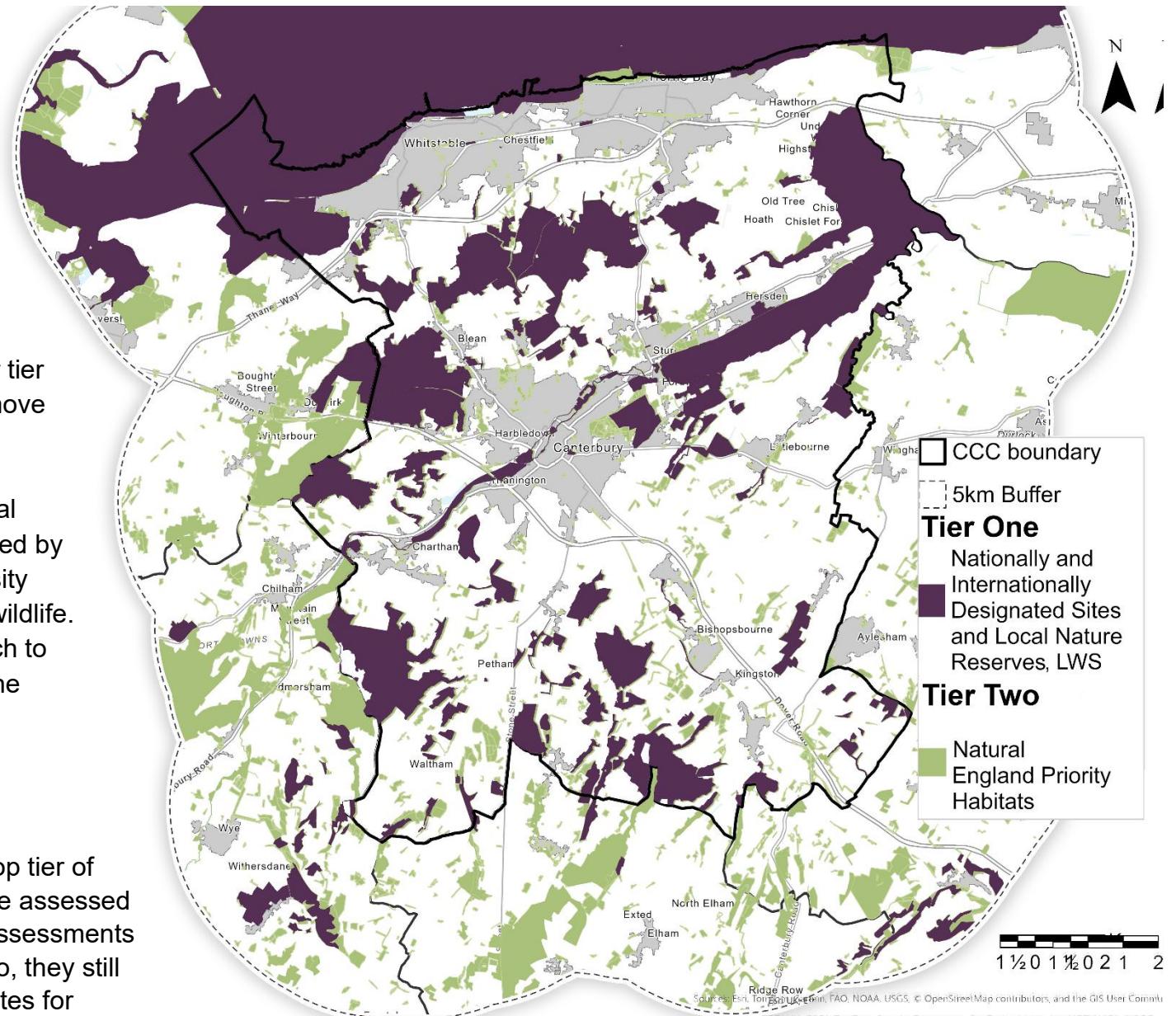
Canterbury District's Core Biodiversity Network

Tier one: Canterbury District's first tier of core biodiversity network is made up of the designated sites. These are the sites which are protected and should be managed for nature conservation and linked up with other tier one and tier two sites to enable species to move within the landscape.

Tier two: The second tier is made up of Local Wildlife Sites and the priority habitats identified by Natural England. While these have biodiversity value, they may not be managed to benefit wildlife. However, these are also priority sites in which to improve wildlife value and form the core of the network

Condition of the Core Network

Sites of Special Scientific Interest form the top tier of the core biodiversity network. These sites are assessed for their condition, although some of these assessments may have been carried out several years ago, they still provide information on the condition of the sites for

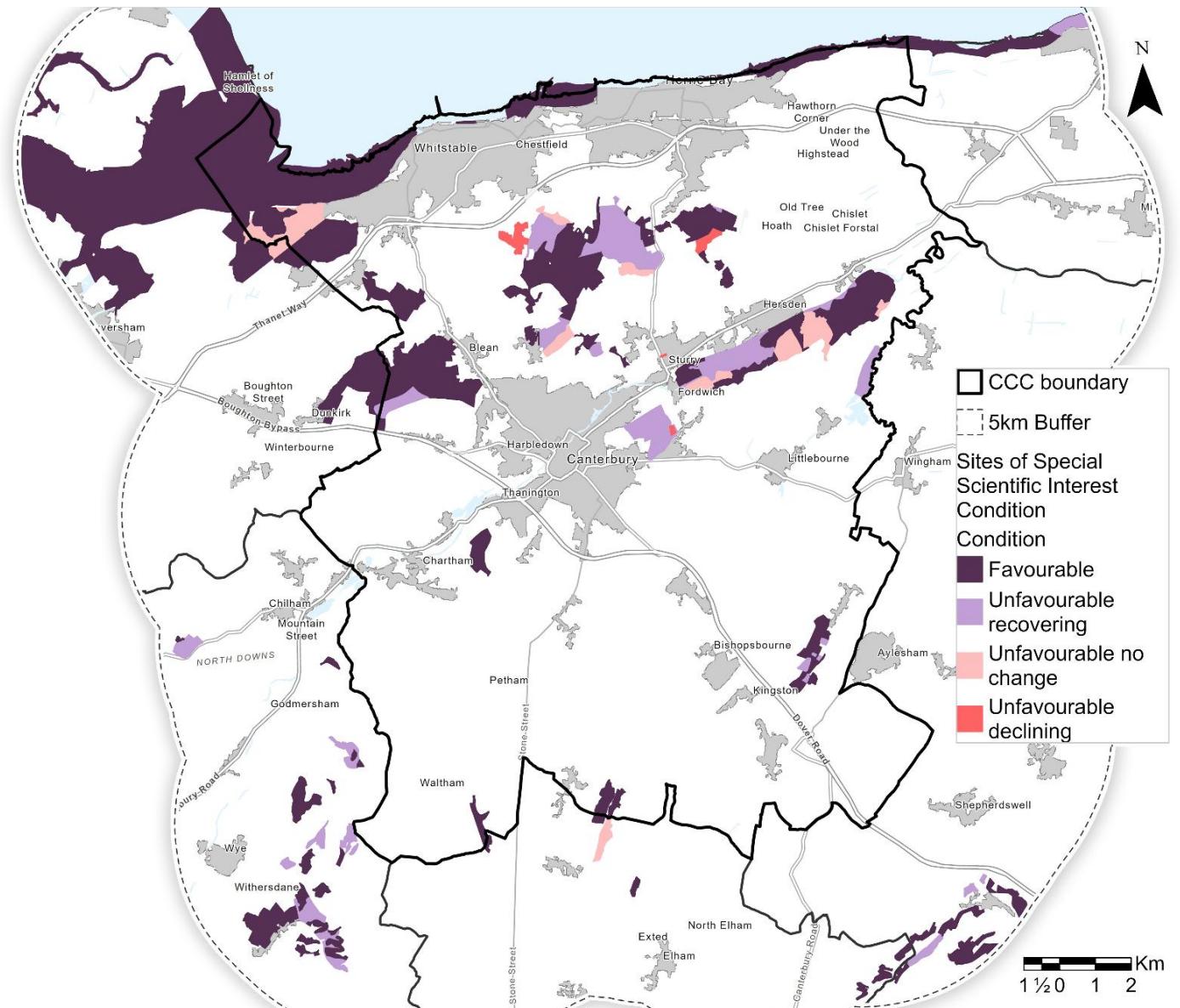


biodiversity. The quality of the SSSIs in Canterbury District is 71%, which is slightly below the government's target of 75% of SSSIs in favourable condition. This compares with 69% for Kent in 2020.⁶

Some SSSIs etc are in the ownership of organisations managing them for wildlife and Canterbury City Council and nature conservation management on these sites is therefore secure.

Condition of Sites of Special Interest in Canterbury District⁷

Condition (Natural England data 2024)	Area hectares	%
Favourable	2,568	71%
Unfavourable recovering	648	18%
Unfavourable no change	327	9%
Unfavourable declining	58	2%



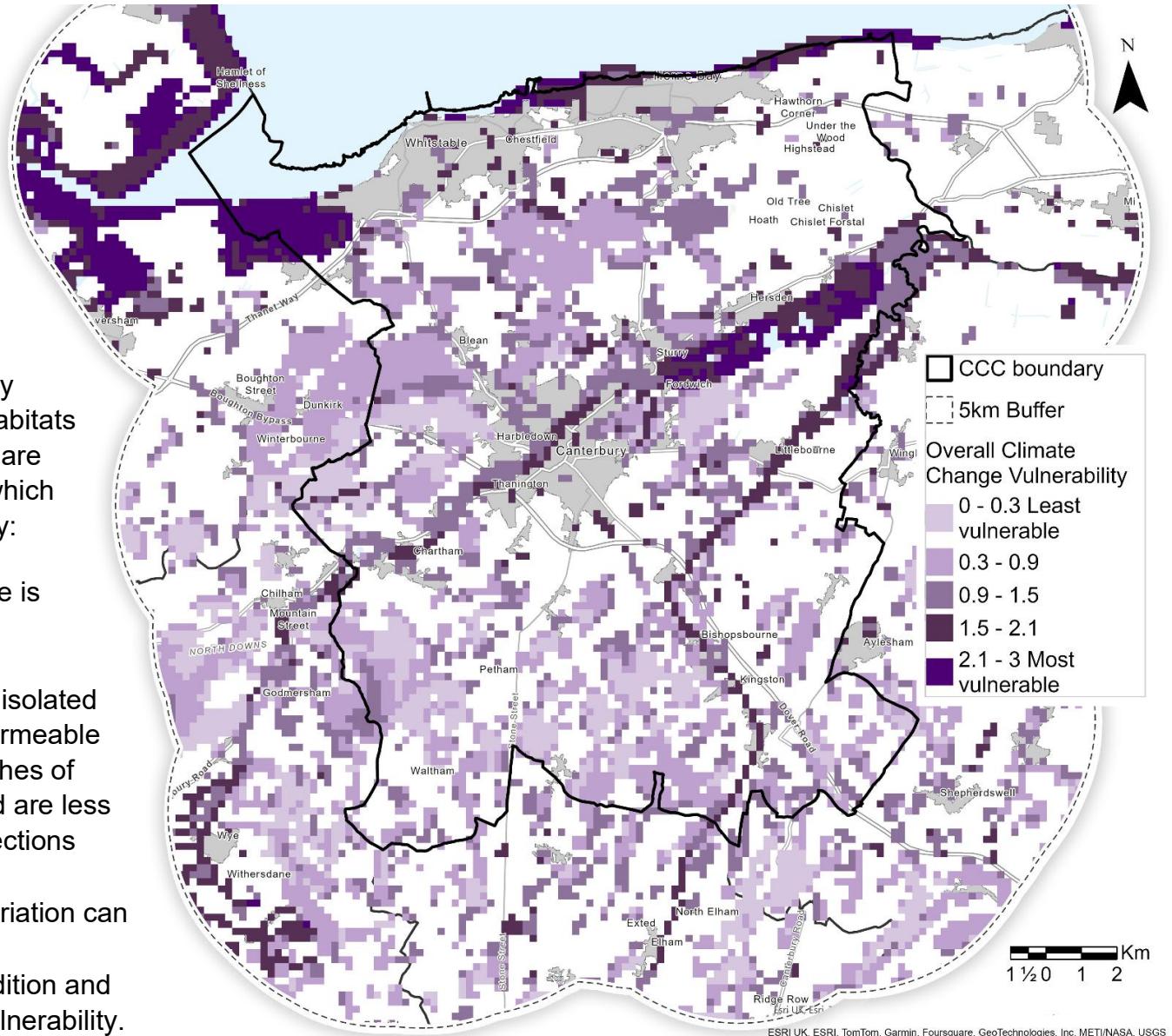
Plan 6: Sites of Special Interest – Condition of Units

Climate Change Vulnerability

Climate change will create direct and indirect pressures on biodiversity. Many species and habitats are strongly influenced by temperature and rainfall and the interactions between these.

Natural England's climate change vulnerability model estimates the vulnerability of priority habitats on land. Areas which are not priority habitats are not included. Four measurements are used which together estimate climate change vulnerability:

- **Sensitivity to Change** – each habitat type is classified as having high, medium or low sensitivity to climate change.
- **Habitat Fragmentation** – measures how isolated areas of the same habitat are and how permeable the surrounding landscape is. Larger patches of habitat can support larger populations and are less susceptible to extremes, and better connections allow species to move in the landscape.
- **Variation in height and aspect** – less variation can increase vulnerability.
- **Management and Condition** – poor condition and existing negative impacts can increase vulnerability.



Plan 7: Natural England Climate Change Vulnerability Model

Habitats which are highly sensitive with low capacity to adapt to climate change impacts, score higher and are more vulnerable. Habitats which are less sensitive to climate change impacts and are more able to adapt are less vulnerable and score lower.

The guiding principles developed by the UK Biodiversity Partnership for biodiversity adaptation action guide to what is needed for biodiversity as the climate changes:

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

Overview: Highly vulnerable habitats - highly sensitive habitats with low capacity for adapting to climate change.

Areas	Reasons
<ul style="list-style-type: none"> • Rivers and river corridors – River Stour, Little Stour and Nailbourne. • Wetland areas – Stodmarsh and Seasalter. • Areas of highly fragmented habitats e.g. between The Blean and Whitstable / Herne Bay, south of Canterbury. • Coastal habitats. 	<ul style="list-style-type: none"> • Rivers and river valleys are moderately sensitive. • Wetlands are sensitive (Seasalter maximum sensitivity and Stodmarsh moderate sensitivity). • In some areas habitat condition is not optimal and does not support adaptation to climate change. • In some areas habitats are fragmented.

Overview: Moderately vulnerable - medium sensitivity and medium capacity to adapt to climate change, or low sensitivity but also a low capacity to adapt to change.

Areas	Reasons
<ul style="list-style-type: none"> • Edges of larger blocks of habitats. 	<ul style="list-style-type: none"> • Greater fragmentation at the edges of larger habitat blocks.

Overview: Less vulnerable - Low sensitivity habitats and high capacity to adapt to climate change.

Areas	Reasons
<ul style="list-style-type: none"> • Woodlands - The Blean and woodlands to the southwest of district. 	<ul style="list-style-type: none"> • Better connected habitats, less fragmentation. • Habitats have low sensitivity to climate change. • Condition is good

Part 4: Canterbury District's Habitats and Species



Heath Fritillary Butterfly

This section sets out the status of nature in Canterbury District, as far as is known. It highlights the habitats and some of the iconic species of the district.



Those habitats which have been identified by the Kent Nature Partnership as being priority habitats. These are marked with a green leaf.



Those habitats which are UK priority habitats are marked with a purple leaf.



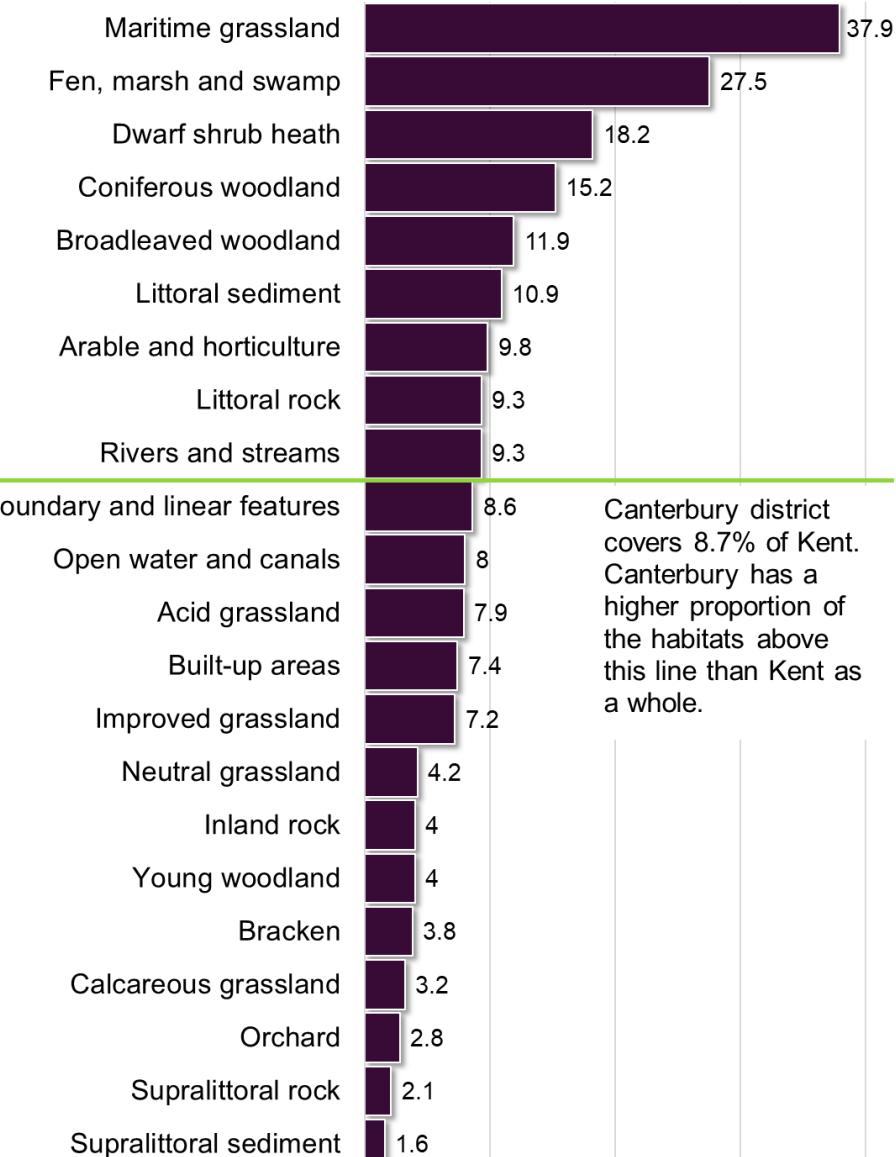
The Kent Nature Partnership has also highlighted priority and indicator species. These are marked with a purple butterfly.

The information available on trends, condition, pressures and threats to habitats and species is often at a Kent scale, rather than for Canterbury District. The most relevant information has been used, but further understanding at a district level will help to improve this strategy in the future.

The habitats and species on the next page are important in Canterbury District and are included in this strategy.

The chart to the right shows what percentage of the overall Kent resource of habitats is within Canterbury District.⁸

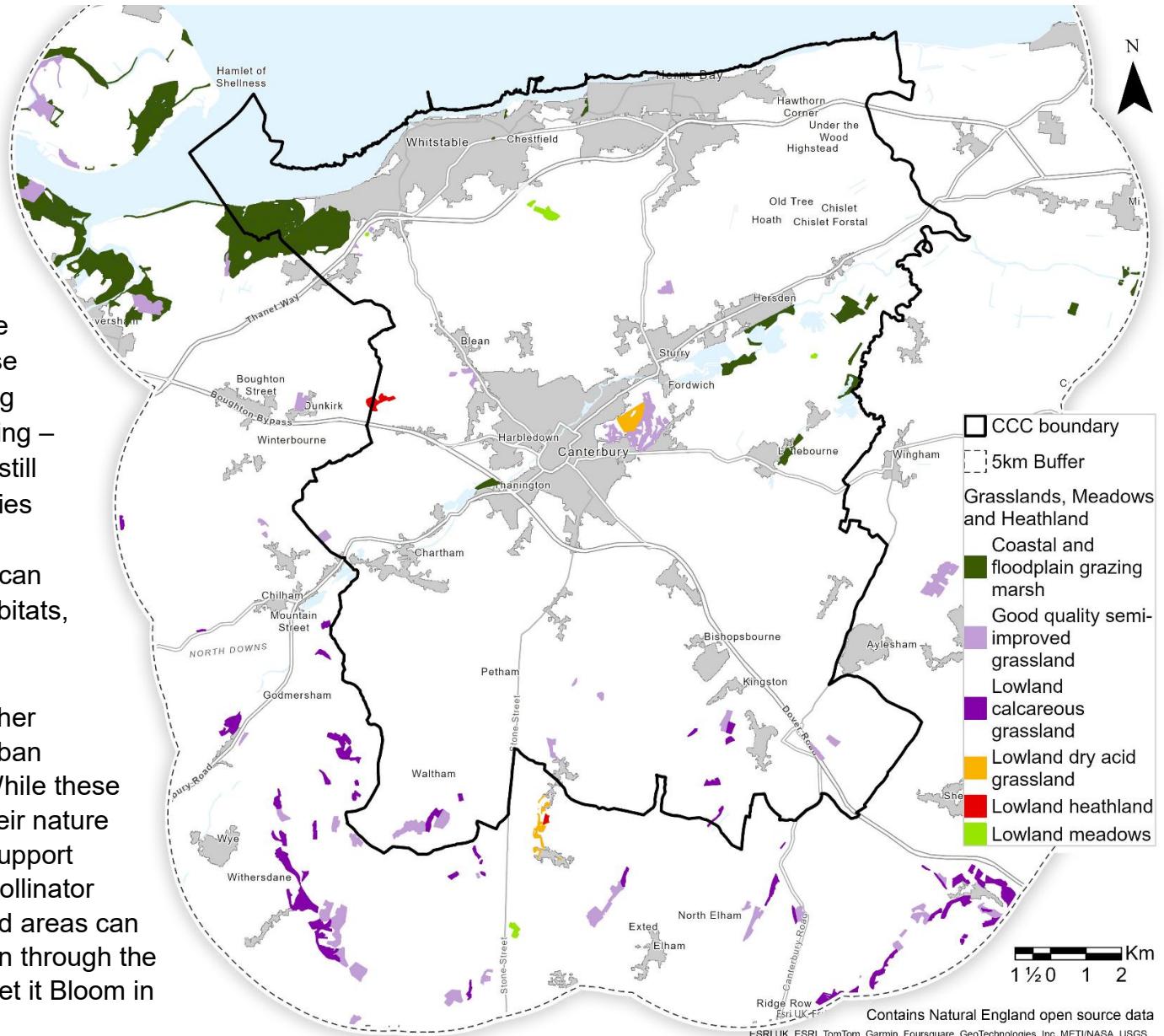
% of Kent's Habitat Resource within Canterbury District



Grasslands, Meadow and Heathland Habitats

At 86% of all Canterbury District's grassland, improved grassland is the most abundant. However, the grasslands which are of the greatest importance for nature are those which have not been improved through adding fertiliser, using herbicides or through re-seeding – 14% of the district's grasslands. These often still contain a wide range of flower and herb species which, in turn, support an array of insects, including pollinators, and other wildlife. They can also be an important part in a mix of other habitats, such as scrub and woodland.

There are also many areas of grassland in other places – in parks, along roadsides and suburban streets as well as in thousands of gardens. While these are not usually of high conservation value, their nature conservation value can still be increased to support more wildlife and can become important for pollinator species. Action taken in many small grassland areas can add up to a large impact and benefit as shown through the widespread adoption of 'No Mow May' and 'Let it Bloom in June'.

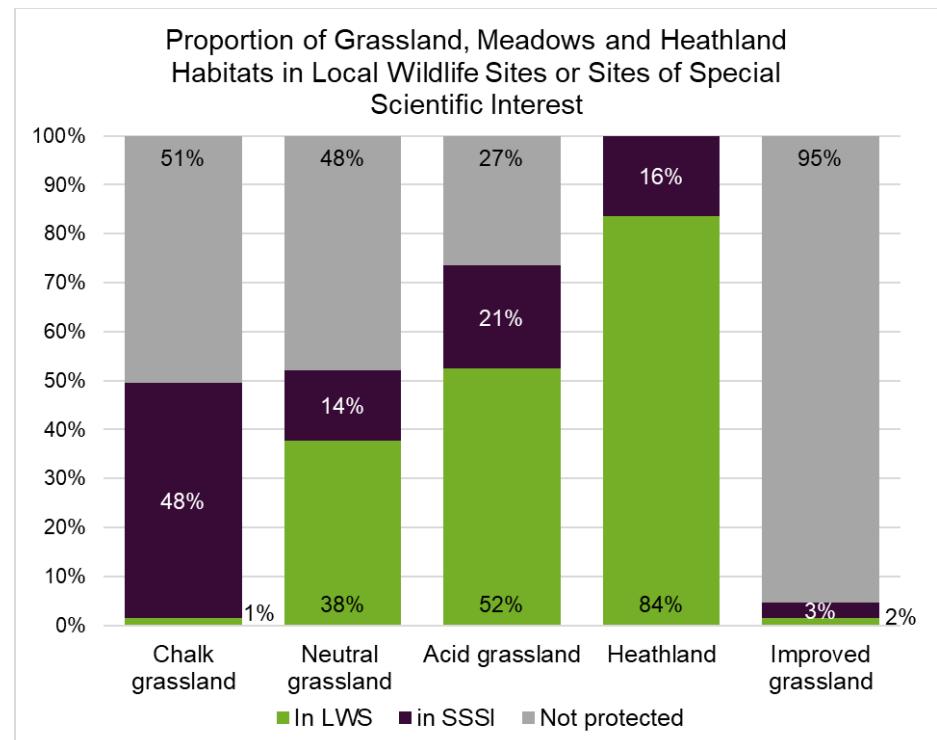


Plan 8: Grassland Habitats – Natural England Priority Habitat Inventory

Summary of Grassland, Meadow and Heathland Habitats in Canterbury District⁹

Habitat	Hectares	% of Kent's habitat in Canterbury District	% of all Canterbury's grassland habitat which is of this type	% cover of whole district	% in Local Wildlife Site or Site of Special Scientific Interest
Chalk grassland	61	3.2%	0.6%	0.2%	50%
Neutral grassland	1210	4.2%	12.4%	3.6%	52%
Acid grassland	40	7.9%	0.4%	0.1%	74%
Heathland	13.5	18.2%	0.1%	0.04%	100%
Improved grassland	8414	7.2%	86.4%	24.7%	5%
Total	9739	-	100%	28.6%	-

Proportion of Grassland, Meadow and Heathland Habitats in Local Wildlife Sites or Sites of Special Scientific Interest



Chalk Grassland



Also known as calcareous grassland, this habitat is found on the Kent Downs in the south of the district. This grassland is iconic for Kent, with southern England being a stronghold for this internationally rare habitat. The habitat can be made up of a great diversity of rare and distinctive plants, including many species of orchid. Varied insect life is also found in this grassland including scarce species such as Adonis Blue.

Lowland Meadows



These grasslands on neutral soils were traditionally managed as hay meadows, with grasses and flowers mingling together, and buzzing with insect life. Unfortunately, these types of grassland were the most productive to be improved for grazing or grass production. This is one of the habitats which has suffered the greatest loss in the last 80 years.

Coastal and Floodplain Grazing Marsh



Floodplain grazing marsh is created by draining river floodplains, while coastal grazing marsh is created through draining saltmarsh. The range of species in the grassland can be varied – sometimes there is a wide range of species but often the variety is quite low. The quality of the habitat largely depends on the intensity of farming, as these grasslands are productive pastures. The mix of grassland criss-crossed with drainage ditches, hollows and ponds, which is sometimes flooded, makes this a valuable habitat.



Common Spotted Orchid

A range of species, such as water voles and water-loving rare insects are associated with it. Grazing marsh is also used as feeding and roosting habitat by internationally important populations of waterfowl.

Climate change brings particular threats to this habitat. The early onset of the growing season may create less favourable conditions for the nesting birds associated with this habitat. Increases in water abstraction could alter the water table and lead to further drying. Changes in sea level could result in areas being lost and lead to saline water entering the habitat.

The largest area of grazing marsh is at Seasalter Levels and Graveney Marshes, west of Seasalter. Smaller areas of marsh are found along the River Stour and the Wantsum Channel.

Acid Grassland and Heathland



Acid grassland is made up plant species which can tolerate sandy or gravelly acidic soils. It is rare in Kent, but there are some small areas within Canterbury District. The largest is within Chequer's Wood and Old Park SSSI to the east of Canterbury City. Some areas might be bare, with mosses and lichens. This habitat also supports some uncommon insect species including beetles.

Heathland is not grassland but is included in this section as it is often inter-mixed with acid grassland. It is a habitat of small, woody shrubs. To be heathland at least a quarter of the plants must be heather. It is a very rare habitat in Kent, and also in the Canterbury District; however, 18% of all of Kent's heathland is in Canterbury, making this an important habitat in the district. The main areas are in The Blean with some areas in the south of the district where acid soils lie on top of the chalk.

Semi-improved Grassland

Semi-improved grassland has been partially improved for agriculture or other uses but still retains some of its biodiversity value. This grassland does not have the same level of nature interest as the other types of grassland described, but it is useful for conservation as it could be restored to support more wildlife, especially where it is near to other more valuable habitats.



Old Park Site of Special Scientific Interest

Our Grassland, Meadow and Heathland Species



Fisher's Estuarine Moth

- **Coastal grassland**
- A very rare moth, which feeds exclusively on the also very rare Hog's Fennel



Lapwing



- **Coastal and freshwater grazing marsh**
- A bird of wet grassland. Distinctive 'peewit' call. Forms large flocks.



Green-winged Orchid

- **Neutral and chalk grassland**
- A rare plant of unimproved grasslands



Hog's Fennel

- **Coastal grassland**
- A very rare coastal plant restricted to north Kent and only a few other places in the UK



Redshank

- **Coastal grazing marsh**
- A bird of marshes and mudflats. As its name indicates - it has red legs.



Shrill Carder Bee



- **Urban and coastal grassland**
- A very rare bumblebee only found in a few places in the UK



Skylark

- **Grassland**
- An iconic bird of grassland and farmland

Threats and Pressures on Grassland, Meadow and Heathland Habitats

The following threats and pressures cause the loss or reduction in the nature conservation value of these habitats. The State of Nature in Kent Report shows that these threats and pressures are relevant to Kent and therefore very likely to be relevant to Canterbury District. However, information on the extent and impact within Canterbury District is not available.

Land management: Grasslands need to be managed for conservation with grazing – with the right level of animals – often the best way of doing this. Without management, scrub establishes. The Kent Habitat Survey recorded that this was the cause of the biggest loss of chalk grassland between 2003 and 2012. However, in the current farming economy it is often difficult to secure animals. Farmers are also reluctant to graze their stock on urban fringe sites or where there is public access due to fears over the safety of stock. Conversely, intensification of grazing, along with the addition of fertilisers and a move to silage from hay production also reduce the range of flowers. This, in turn, affects the number of pollinating insects. For wet grassland, including coastal and floodplain grazing marsh, changes to land drainage can be negative.

Fragmentation: In many cases there are only small areas of these habitats left, and they are often isolated. This makes them particularly vulnerable – smaller sites are inherently more vulnerable to loss, and plant and animal species cannot move the distances between the sites. Roads and other barriers also decrease the connections between the sites.

Direct loss: Grasslands can be lost to development, roads, quarrying or a wide range of other development. Some grasslands may be ploughed for arable land or changed to other farming. Trees and woodlands are planted on grassland – it is important that new tree planting does not destroy valuable grassland habitats.

Increase in nutrients: The wide range of plants found in these grasslands and in heathland is due to the soil having low nutrients. Many plant species in these grasslands are very sensitive to an increase in soil nutrients and two thirds of wildflowers need low or medium levels of nitrogen. They are quickly lost when fertilisers are added and robust species such as Nettles take their place. Agricultural improvement has led to the estimated loss of 97% of lowland meadows since 1935.

Air pollution: Nitrogen which is deposited directly from the air and in rain also enriches the soil. This can be a significant route for nutrient increases in heathland and acid grassland, which are less likely to be improved for agriculture. Air pollution also creates more acidic conditions, upsetting the delicate balance of the habitats.

Climate Change Sensitivity of Grassland, Meadow and Heathland Habitats¹⁰

		Chalk grassland	Lowland meadows	Coastal and floodplain grazing marsh	Acid grassland	Heathland
	Overall climate change sensitivity	Low	Medium	Medium	Low	Medium
Cause	Potential impacts					
Hotter summers	Flowering and seeding could change significantly, taking place earlier in the year.	✓	✓	✓	✓	✓
	Increase in bracken.				✓	✓
	Less favourable feeding and nesting conditions for birds associated with wet grassland habitats.			✓		
Drier summers	Drier conditions and drought will favour some species, for example deep-rooted species, and lead to changes in the composition of species. Loss of fungi, lichen and mosses.	✓	✓	✓	✓	✓
	Habitats reliant on water could suffer due to less water.		✓	✓		✓
	Increased risk of fires.		✓		✓	✓
Wetter and warmer winters	More frequent flooding and increased nutrients could lead to changes in species. Flooding can increase risk of pollution.		✓	✓		✓
	Higher moisture and nutrients available in the soil leading to a change in species and increase in more competitive species.	✓			✓	✓
	Warmer winters could reduce frosts, essential for regeneration of heathland				✓	✓
Sea level rise	Loss of habitats due to sea level rise and ingress of saline water.			✓		
Economic	Changes in the economics of grazing and land management due to climate change impacts could lead to greater loss or could lead to abandonment.	✓	✓	✓	✓	✓

What our Review of Evidence has Shown

Grassland and heathland sites are small and dispersed. We must act at scale to protect, expand and connect these habitats.

Biodiverse grassland, meadow and heathland habitats in the district are small and often each site is a considerable distance from nearby similar habitats. It is essential to protect the remaining core sites and ensure they are in good condition. We must also work to connect these sites through landscape-scale projects, working with partners. Priorities are The Blean, the River Stour corridor, The Wantsum, the Kent Downs National Landscape and in and around Old Park and Chequers Wood.

There is some protection of grassland, meadow and heathland habitats but not all areas are managed for nature conservation or in a good condition.

All the heathland and three quarters of the district's acid grassland are within a Local Wildlife Site or Site of Special Scientific Interest, and much is also in the custodianship of charities in The Blean. However, only around half of chalk grassland and neutral grassland is designated. Also, being within a Local Wildlife Site does not guarantee that nature conservation is being prioritised. Much of the lower quality grassland has no protection at all. Some parts of Sites of Special Scientific Interest – although highly protected – are not in favourable condition, for example parts of the Graveney Marshes around Seasalter.

Lower quality grassland habitats are also beneficial – and there are a lot of them. Increasing the wildlife value of these grasslands will have a significant impact.

The nature conservation value of grassland everywhere across the district could be improved. This could be through planting wildflowers or improving management, for example joining in 'No Mow May' and 'Let it Bloom in June'.

We must work with partners to effect meaningful change.

Nature conservation grasslands need management through grazing or cutting. Whether this happens often depends on the wider agricultural context – farming economics and whether grants are available for landowners. Influencing this is not in the control of Canterbury City Council. However, the Council can work with and support others such as the Kentish Stour Countryside Partnership to encourage and support landowners. Natural England's East Kent grasslands project has targeted southern parts of the district over 25-30 years to create species-rich grasslands and create landscape-scale networks of linked wildflower grasslands. This work is now showing impressive results for many species including butterflies and farmland birds. The Council can continue to advocate for such projects.

Ensure loss of lower quality grassland through development is compensated for and improvements made.

Biodiversity Net Gain and policies in the Kent and Medway LNRS will help to ensure grassland suitable for wildlife will be created, with developers being encouraged to include wildlife-rich new grasslands in developments.

Actions Supporting Grassland, Meadow and Heathland Habitats and Species

- BA7: Work with the Wilder Blean Partnership to address habitat fragmentation and nature recovery.
- BA8: Work in partnership to promote biodiversity opportunities along the Great River Stour and explore the concept and establishment of a possible Great Stour Regional Park.
- BA9: Support partnership opportunities for Landscape-scale works within the Wantsum Channel, connections to The Blean and Pegwell Bay E3 initiative, and Canterbury to Coast.
- BA15: Facilitate the positive land management and the delivery of biodiversity outcomes at the Old Park and Chequers Wood, and surrounding land.
- BA18: Support Contracts' and Canenco's delivery of biodiversity positive grounds maintenance through provision of training and increased awareness.
- BA21: Work with the Canterbury Riverside Group to deliver the Canterbury Riverside Strategy.
- BA26: Consider potential for partnership led external funding strategies for key initiatives / sites including: (a) Old Park and Chequers Wood, and (b) The Wantsum initiative.
- BA28: Review the management of land owned by the council, the universities, schools, Housing Revenue Account, MoD and hospitals, and promote biodiversity measures such as pollinators.

- BA31: Make maximum use of the opportunity to enhance biodiversity and improve habitat connectivity in planning decisions.

Related actions in Canterbury City Council Strategies

Green Infrastructure Strategy

- Urban greening, managing greenspaces for biodiversity, including parks and amenity greenspaces.
- Managing CCC owned land to maximise biodiversity.
- Improving biodiversity in and around Old Park.
- Landscape-scale biodiversity: including chalk grassland (Kent Downs National Landscape) and heathland (The Blean).
- Sets out strategic green corridors along which to improve biodiversity.

Pollinator Action Plan

- Grassland management for pollinators; improving floristic diversity.
- Creating new flower-rich grassland in rural and urban areas.
- Creating pollinator corridors.

Canterbury Tree, Woodland and Hedgerow Strategy

- Principle that tree expansion should not take place on high biodiversity value grassland or heathland.

Canterbury Riverside Strategy

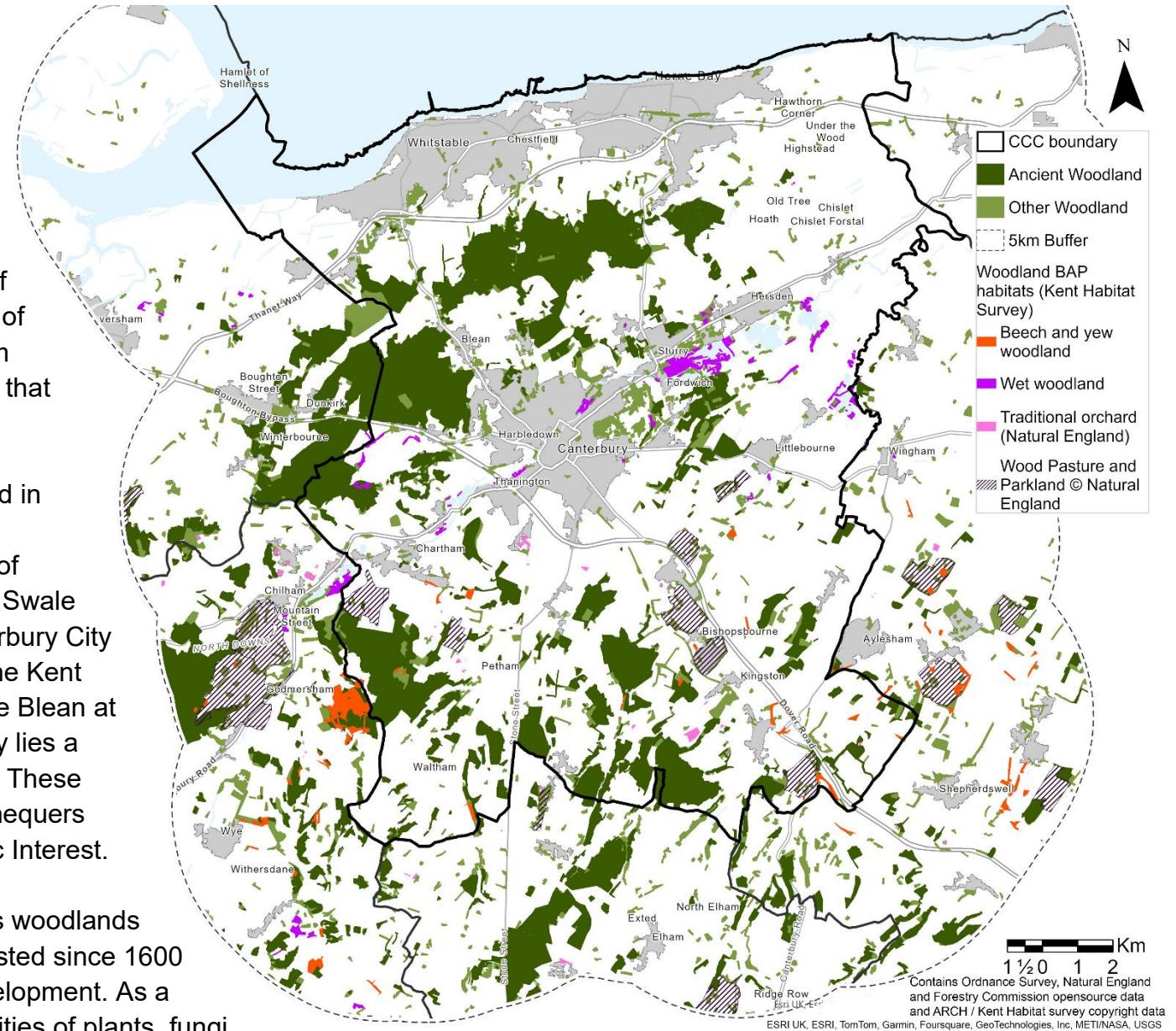
- Riverside habitat enhancement, including for pollinators.
- Management of riverside Local Nature Reserves and other greenspaces.

Woodlands, Trees, Hedgerows and Scrub

Canterbury District has some of Kent's largest and most connected blocks of woodland, making them outstanding for wildlife. The district has more than its share of many woodland priority habitats, including all of Kent's internationally protected oak-hornbeam woodland. The Kent Habitat Survey recorded that 15.6% of the district is woodland.

There are large blocks of connected woodland in The Blean, stretching across the entire area between Whitstable and Herne Bay and City of Canterbury and westwards into neighbouring Swale borough. Similarly, to the southwest of Canterbury City are many woodlands which connect across the Kent Downs National Landscape. These link to The Blean at Chilham. To the east of the City of Canterbury lies a network of woodlands along the Stour Valley. These extend into City of Canterbury through the Chequers Wood and Old Park Sites of Special Scientific Interest.

Around three-quarters of Canterbury District's woodlands are ancient (76%). Ancient woods have persisted since 1600 and are relatively undisturbed by human development. As a result, they are unique and complex communities of plants, fungi, insects and other microorganisms.

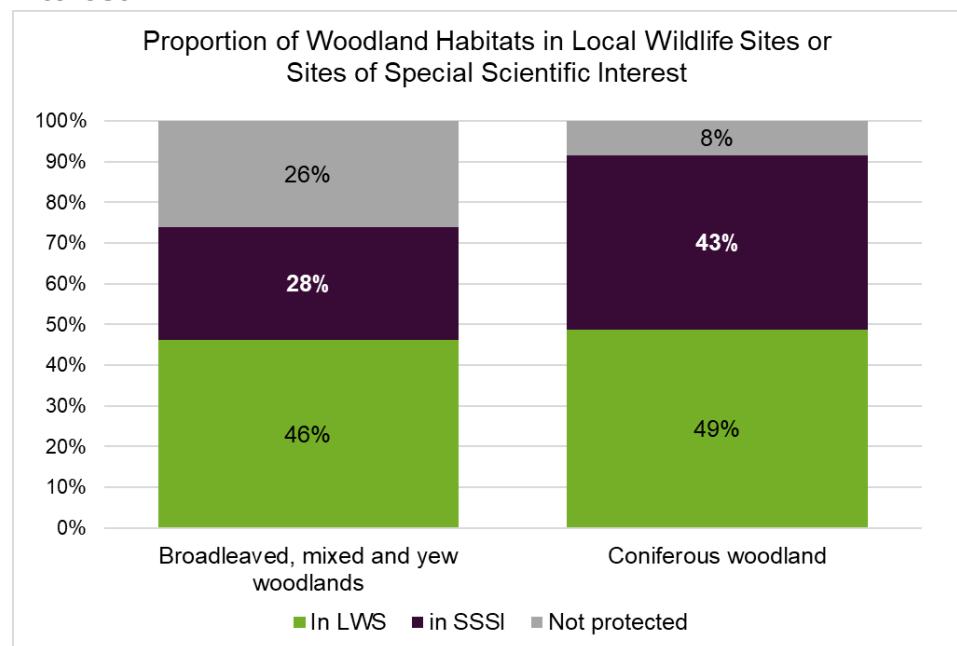


Plan 9: Woodland Habitats

Summary of Woodlands, Trees, Hedgerows and Scrub Habitats in Canterbury District¹¹

Habitat	Hectares	% of Kent's habitat in Canterbury District	% of all Canterbury's grassland habitat which is of this type	% cover of whole district	% in Local Wildlife Site or Site of Special Scientific Interest
Broadleaved, mixed and yew woodlands	5292.0	11.9%	91.2%	15.6%	46%
Coniferous woodland	510.1	15.2%	8.8%	1.5%	49%
Total	5802.1	-	100%	17%	-

Proportion of Woodlands, Trees, Hedgerows and Scrub Habitats in Local Wildlife Sites or Sites of Special Scientific Interest



Lowland Mixed Deciduous Woodland



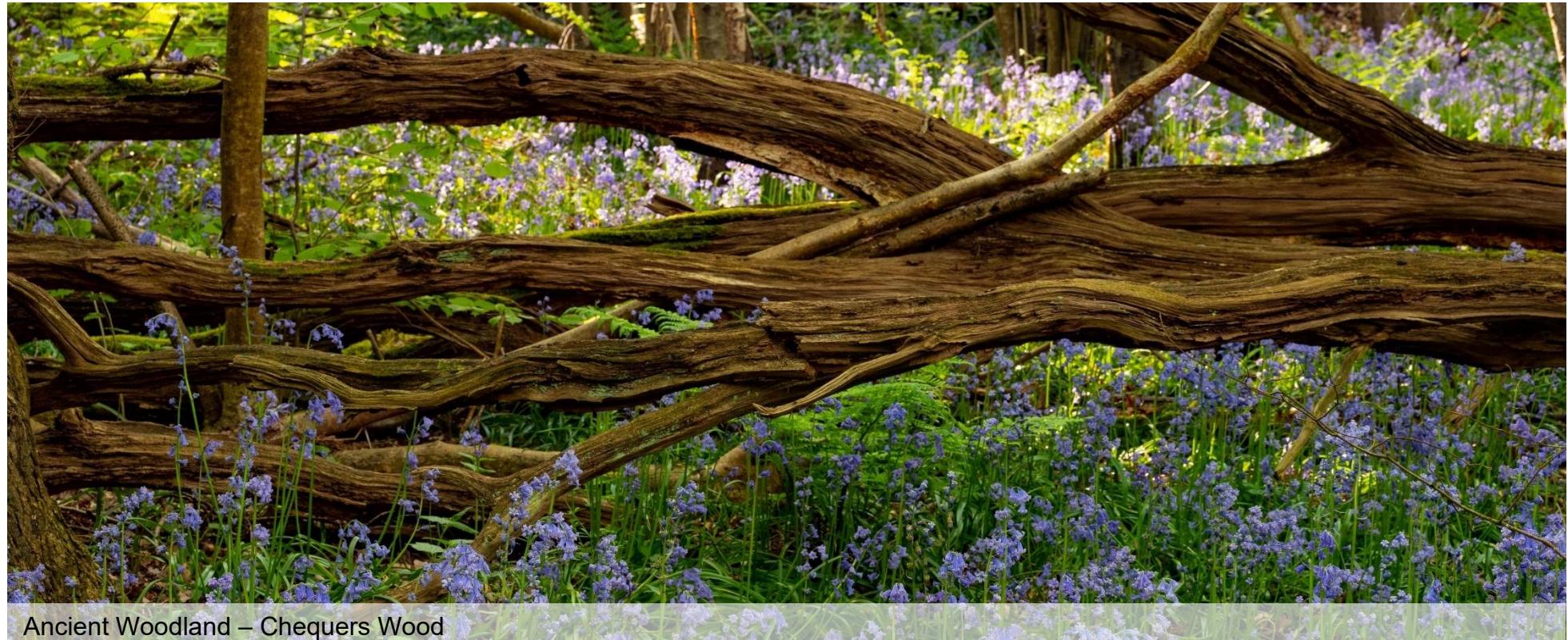
This woodland can take many forms and have a wide range of trees and species associated with it. Deciduous woodland may be of ancient or recent origin and can either arise from natural regeneration or having been planted. These woodlands have a canopy of large trees, often Oak or Ash trees, with smaller trees and shrubs growing beneath. There can be an array of wildflowers, including in some woodlands, carpets of bluebells. They can support a multitude of insect species, including

butterflies, and are home to many bird species. These woodlands are found throughout Canterbury District.

Lowland Beech and Yew Woodland



Lowland beech and yew woodland is found in isolated patches on the chalk plateaus in the south of the district and is a distinctive feature of the Kent Downs National Landscape. It is particularly valuable for insect species which need dead wood and can be home to very rare orchids.



Ancient Woodland – Chequers Wood

Wet Woodland



Wet woodland grows on poorly drained or seasonally flooded land. Trees such as Alder, willows and birches thrive in this habitat. Wet and decaying wood create ideal areas for rare insects along with mosses, liverworts and fungi. This habitat is scarce in Kent and has been declining. In Canterbury District this habitat is found around Fordwich and Stodmarsh and in smaller areas alongside the Great Stour and other rivers and streams.

Hedgerows



Hedgerows are important landscape, heritage and habitat features and connect wildlife. In some parts of the district there are species-rich hedgerows of high wildlife value. In other areas there are distinctive shelterbelts, traditionally grown to protect growing fruit. Hedges in urban areas link green spaces. Hedgerow trees are also an important element of hedgerows.

Hedgerows have declined due to arable intensification and insensitive or lack of management. Diseases such as Dutch Elm disease have hastened their decline and Ash dieback will have an increasingly detrimental effect.

There is no data on the length or condition of hedgerows in the district but the Canterbury Landscape Character Assessment shows that networks of good condition hedges remain in some areas, for example near The Blean. However, hedgerows have become significantly degraded between Whitstable and Herne Bay and to the east and south of the City of Canterbury.

Traditional Orchards



Traditional orchards are with large, spreading trees, planted at low densities with grazing livestock. Individual trees are long-lived. They host a range of species such as bats which roost in hollow trunks and woodpeckers. Species rely on the fallen deadwood including reptiles and amphibians and insect species such as rare beetles. There are some traditional orchards in the south of the district mainly in the Kent Downs National Landscape.



Traditional Orchard

Wood-Pasture and Parkland



Wood pasture and parkland have been managed through grazing, with scattered trees across the landscape. They are an important part of cultural and landscape heritage and often have high biodiversity value. Trees are often pollarded – cut around 2.5 metres from the ground – to prevent grazing animals from eating regrowing wood. These are often ancient trees, although the area may not be listed as ancient woodland. There are several areas of wood-pasture and parkland habitat in the south of the district.

Scrub Habitat

Scrub is often regarded as a habitat between the transition from grassland to woodland. However, it can be an extremely valuable habitat in its own right and a habitat which supports many species. Rare bird species such as Nightingale and Turtle Dove depend on this habitat. Mammals, reptiles, insects and birds all use scrub for shelter, breeding and food sources.

It often forms part of other habitats. Sometimes this can be detrimental if scrub is allowed to spread unchecked, for example growing over species-rich grassland. However, if it is managed, scrub can be a valuable component of the wider habitat. It can also form a useful transition zone around woodlands.

There is no information on the extent of scrub habitats in Canterbury District.



Our Woodlands, Trees, Hedgerows and Scrub Species



Dormouse

- **Woodland and Hedgerows**
- Endangered mammal, lives in coppice woodland



Nightingale



- **Woodland and Scrub**
- Known for their melodic song, these birds are confined to southern England



Heath Fritillary



- **Coppice woodland**
- One of the UK's rarest butterflies, with a stronghold in The Blean



Reptiles and Amphibians

- **Woodland, Hedgerows and Scrub**
- Range of species found in woodland edges, clearings and scrub



Lady Orchid

- **Chalk Woodland**
- A rare plant of chalky woodlands



Turtle Dove



- **Scrub and Farmland**
- One of the UK's rarest farmland birds, these birds also need scrub to nest

Threats and Pressures on Woodlands, Trees, Hedgerows and Scrub Habitats

Ash dieback: Ash dieback¹² is the most significant tree disease to affect the UK since Dutch Elm disease. It will lead to the decline and possible death of the majority of native Ash trees in Britain. The fungus spreads more readily in woodland settings where trees are in close proximity. While some trees may have some tolerance to the disease, research suggests mortality of between 70-85% in a woodland setting.¹³ There is currently no cure for Ash dieback and no clear method for stopping its spread.

Increased pests and diseases: The number and range of pests and diseases is likely to increase as the climate changes, with Kent likely to be on the frontline and affected before the rest of the UK.¹⁴ Some of the pests and diseases of concern can have devastating effects on woodlands.

Management of woodlands: Managed woodlands can support a greater variety of wildlife than those which are unmanaged, particularly where management such as coppicing has stopped. Managing a woodland, if carried out appropriately, can create a range of habitats and structural diversity. Conversely, lack of management, or inappropriate management, can have a significant detrimental effect on the biodiversity of woodlands.

Invasive non-native species: Some wet woodlands are affected by invasive non-native species such as Australian Swamp Stonecrop or Himalayan Balsam. Our native Bluebell is at risk because it hybridises with its introduced Spanish cousin. Other species such as Rhododendron, Cherry Laurel and Periwinkle can dominate woodlands leaving less room for native flora.

Recreational use: Access to woodlands is important for health and wellbeing, but sometimes if the level is too high it can lead to trampling and disturbance of wildlife, especially by dogs. Fly tipping, litter, dumping of garden waste and fires can also damage woodlands.

Wood lotting: Wood lotting is where small parcels of woodlands are sold to new owners. Plots may fall out of management or may be managed inappropriately. When this occurs over large, connected areas of woodland it becomes an issue. There is some evidence that this has taken place in the district, but the extent is unknown.

Climate Change Sensitivity of Woodlands, Trees, Hedgerows and Scrub Habitats¹⁵

		Lowland mixed deciduous woodland	Lowland beech and yew woodland	Hedgerows	Wet woodland	Wood-pasture and parkland	Traditional orchards
Overall climate change sensitivity		Low	Medium	Low	Medium	Low	Low
Cause	Potential impacts						
Hotter summers	Increased sun-scorch on leaves and stress on trees.		✓			✓	
	Longer growing season, leading to change in species composition, growing patterns and for some habitats increased management requirements.	✓	✓	✓	✓	✓	✓
Drier summers	Drought conditions leading to stress on trees. Particular stress on veteran and ancient trees.	✓	✓	✓	✓	✓	✓
	Changes in species composition of trees and flora.	✓	✓	✓	✓	✓	
Wetter and warmer winters	Higher survival of over-wintering insect pests leading to greater population and stress on trees and increased prevalence of diseases.	✓	✓	✓	✓	✓	✓
	Fewer frost and winter chills affecting dormancy and success of berry germination			✓			✓
	Waterlogging of soils causing die-back in trees.	✓	✓			✓	✓
	Wetter soils lead to root instability and loss of trees, especially in high winds.	✓	✓	✓		✓	✓
Economic	Changes in the economics of agriculture potentially leading to intensification.			✓			✓
	Management could become more difficult in winter.				✓		
	Increased planting of non-native species	✓	✓				

What our Review of Evidence has Shown

Canterbury District is outstanding for its woodland. It is not only important in Kent but also in southeast England.

Many areas of Canterbury District have high numbers of trees and woodlands, higher than the Kent average. In some areas, notably The Blean and in the Kent Downs National Landscape, these are in large joined up blocks. There are also significant areas of ancient woodland and in some parts of the district most of the woodland is ancient.

There are opportunities to work at a large scale to make significant impacts for nature.

Canterbury's extensive woodlands provide opportunities to make a significant impact through co-ordinated biodiversity action. An example of this is The Blean where multiple partners are working together. There are opportunities to further expand and connect woodlands and to restore once ancient woodlands which are now conifer plantations. Other priority areas include the Kent Downs National Landscape and east of Canterbury City around Chequers Wood.

Trees are under increasing threat.

Trees face increasing numbers of pests and diseases, including Ash dieback, and many others. They also face threats from climate change due to flooding, drought, high winds and extreme temperatures. Increasing genetic diversity of tree stock and the variety of species in woodlands is important to help trees to adapt to these threats. Management of woodlands can also help to make sure woodlands are more resilient.

There are opportunities to expand trees, woodlands and hedgerows, but this must be done in the right way.

Expansion of trees, woodlands and hedgerows should be in keeping with the landscape and should not take place on sites which already have valuable habitats, for example flower-rich grasslands. Hedgerows are important features to connect to form wildlife corridors. Natural regeneration can be preferable to planting trees in many cases. If trees are planted, it is essential to choose the right tree for the right place and to make sure they are looked after following planting.

Trees, woodlands and hedgerows provide many benefits.

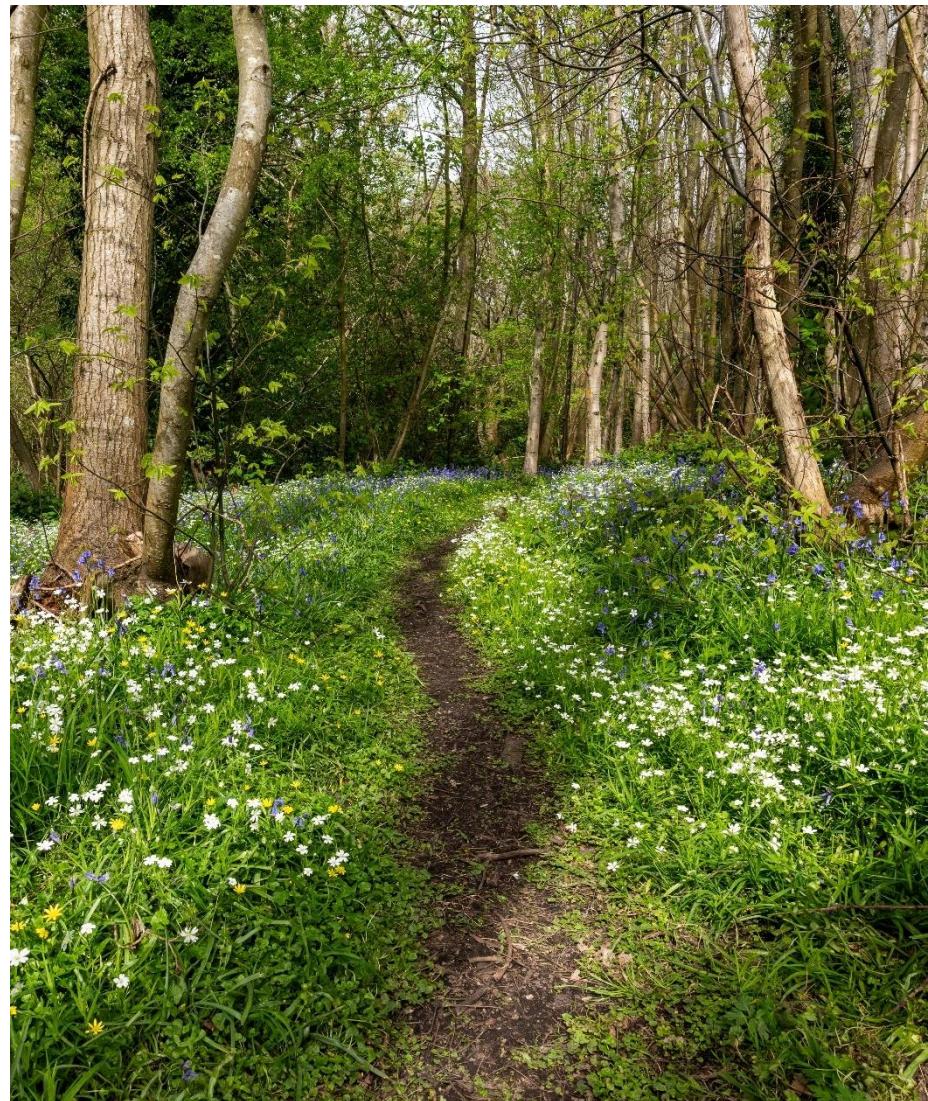
Trees store carbon, support biodiversity and pollinators, clean the soil and water and provide food, fuel and wood. They help create places which increase health and mental wellbeing. Trees are also important in urban areas, providing cooling, cleaning the air, supporting nature and making attractive places for people to live. Ensuring that developers provide more trees in new housing sites is important to create attractive places to live.

Scrub habitats are also important for wildlife, but we know less about them.

Scrub is a transition phase between grassland and woodland. It provides shelter, food, and breeding areas for birds, insects, reptiles, amphibians and small mammals, bats and pollinator species. Certain types of scrub are important for one of our rarest birds, the Turtle Dove. However, we have less information on where there is scrub and the quantity of it as it often forms a part of other habitats.

Actions Supporting Woodlands, Trees, Hedgerows and Scrub Habitats and Species

- BA4: Undertake a strategic review of landowners' and farmers' willingness to deliver biodiversity actions and present results in the form of a "Willingness Map."
- BA7: Work with the Wilder Blean Partnership to address habitat fragmentation and nature recovery.
- BA9: Support partnership opportunities for Landscape-scale works within the Wantsum Channel, connections to The Blean and Pegwell Bay E3 initiative, and Canterbury to Coast.
- BA13: Support Tree Officer in promoting and delivering the Canterbury Hedge and tree planting initiatives across the district.
- BA15: Facilitate the positive land management and the delivery of biodiversity outcomes at the Old Park and Chequers Wood, and surrounding land.
- BA24: Support Tree Officer in promoting and securing external grants.
- BA26: Consider potential for partnership led external funding strategies for key initiatives / sites including: (a) Old Park and Chequers Wood, and (b) The Wantsum initiative.
- BA30: Resource the enforcement of best practice tree planting and maintenance on all development sites.



Ancient Woodland – Chequers Wood

Related actions in Canterbury City Council Strategies

Green Infrastructure Strategy

- Retention and planting of trees on development sites.
- Protection and management of ancient woodlands
- Landscape-scale biodiversity: including woodlands – The Blean and East Kent Woodlands.
- Urban greening including street trees.
- Managing CCC owned land to maximise biodiversity.
- Improving biodiversity in and around Old Park.
- Sets out strategic green corridors along which to improve biodiversity, including trees and woodlands.
- Expand Duncan Down and protect Gorrell Wood.

Canterbury Tree, Woodland and Hedgerow Strategy

- Increase canopy cover across the district – in the form of woodlands, trees and hedgerows.
- Prioritise natural regeneration of trees.
- Increase street trees, including in new developments.
- Protecting existing trees, woodlands and hedgerows.
- Increase the length and quality of hedgerows.
- Measures to protect and respond to the threats to trees and woodlands from pests and diseases and the impacts of climate change.
- Woodlands in CCC ownership to be managed for wildlife, tree health and longevity.
- Provide information and support for communities and partners to develop and deliver projects around trees, woodlands and hedgerows.

Pollinator Action Plan

- Use of flowering trees to provide for pollinators.

Canterbury Riverside Strategy

- Trees along the riverbank can help to provide cooling to mitigate the effects of climate change.
- Native planting in some sections of the river as part of enhancements.
- Protection of scarce wet woodland along the river.

The Coast and Sea

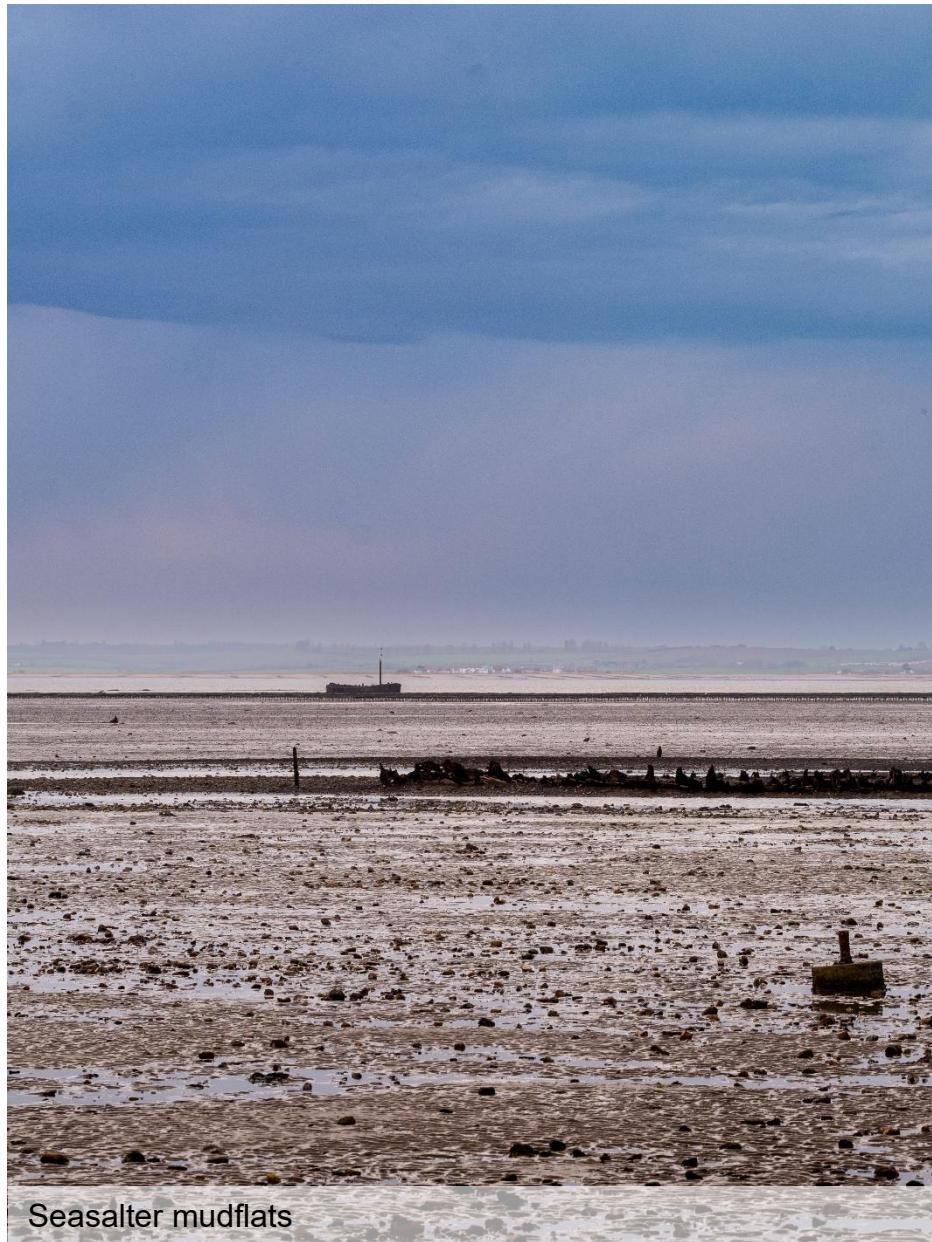
From Graveney Marshes in the west, through to Reculver in the east, the coastline and offshore marine areas of Canterbury are incredibly special places for nature.

Large sections of the coast and sea are protected for nature. Offshore lies the Outer Thames Estuary Marine Protected Area, protected for supporting red-throated diver, common tern and little tern.

Closer inland are two Marine Conservation Zones (MCZ) – The Swale Estuary MCZ and the Thanet Coast MCZ. These are protected for the diverse species they support in the variety of sediments and for their reefs.

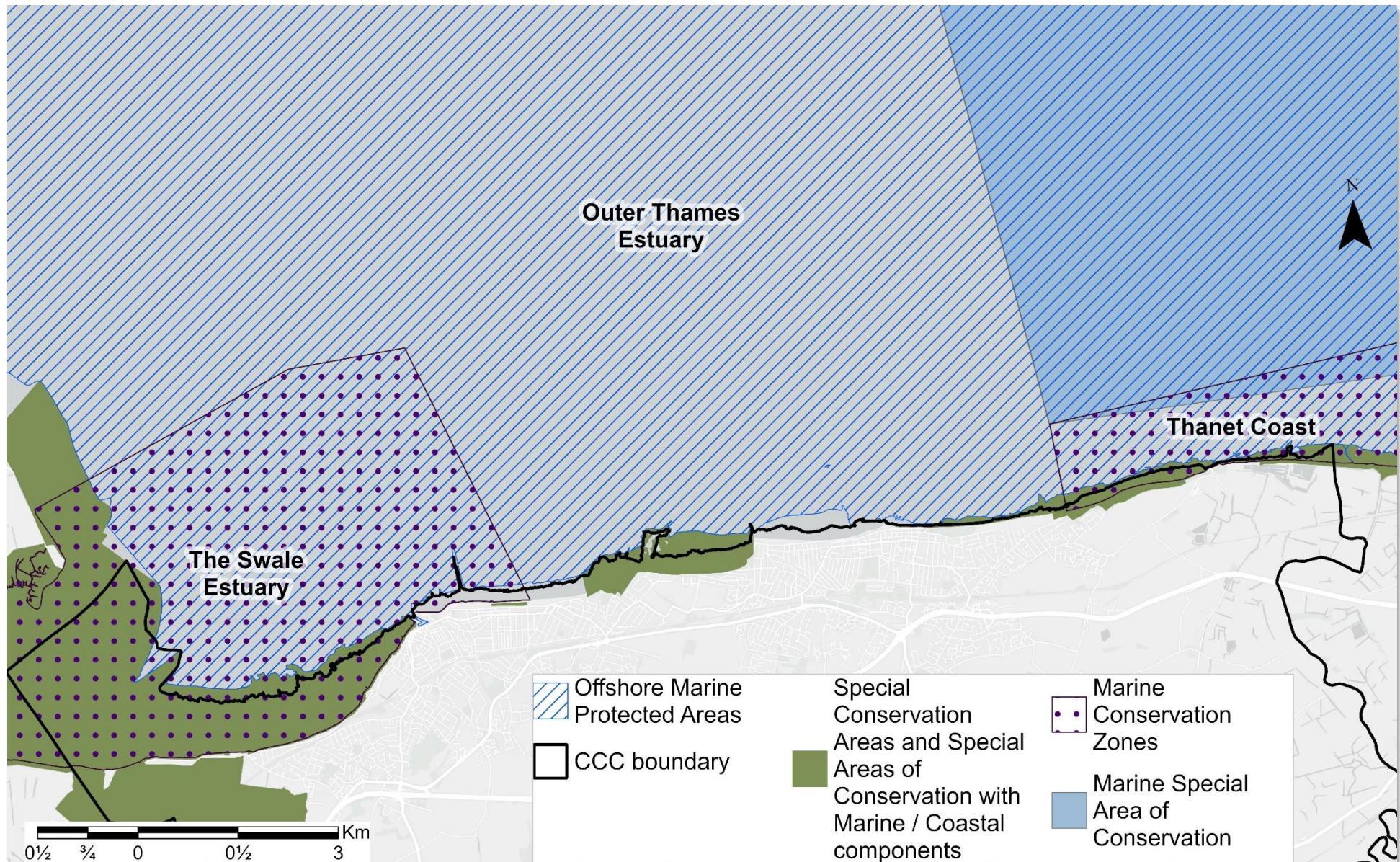
There are further inshore and land-based Special Protection Areas covering the eastern and western sections of the coast, designated for their international importance for overwintering birds. There is also a Special Conservation Area - Tankerton Slopes and Swalecliffe – designated for the Fisher's estuarine moth which inhabits the coastal grassland.

Although large sections of the coast are developed there are very important areas for wildlife even near to urban areas, for example at Long Rock, Tankerton Slopes and Beltinge and Bishopstone Cliffs.

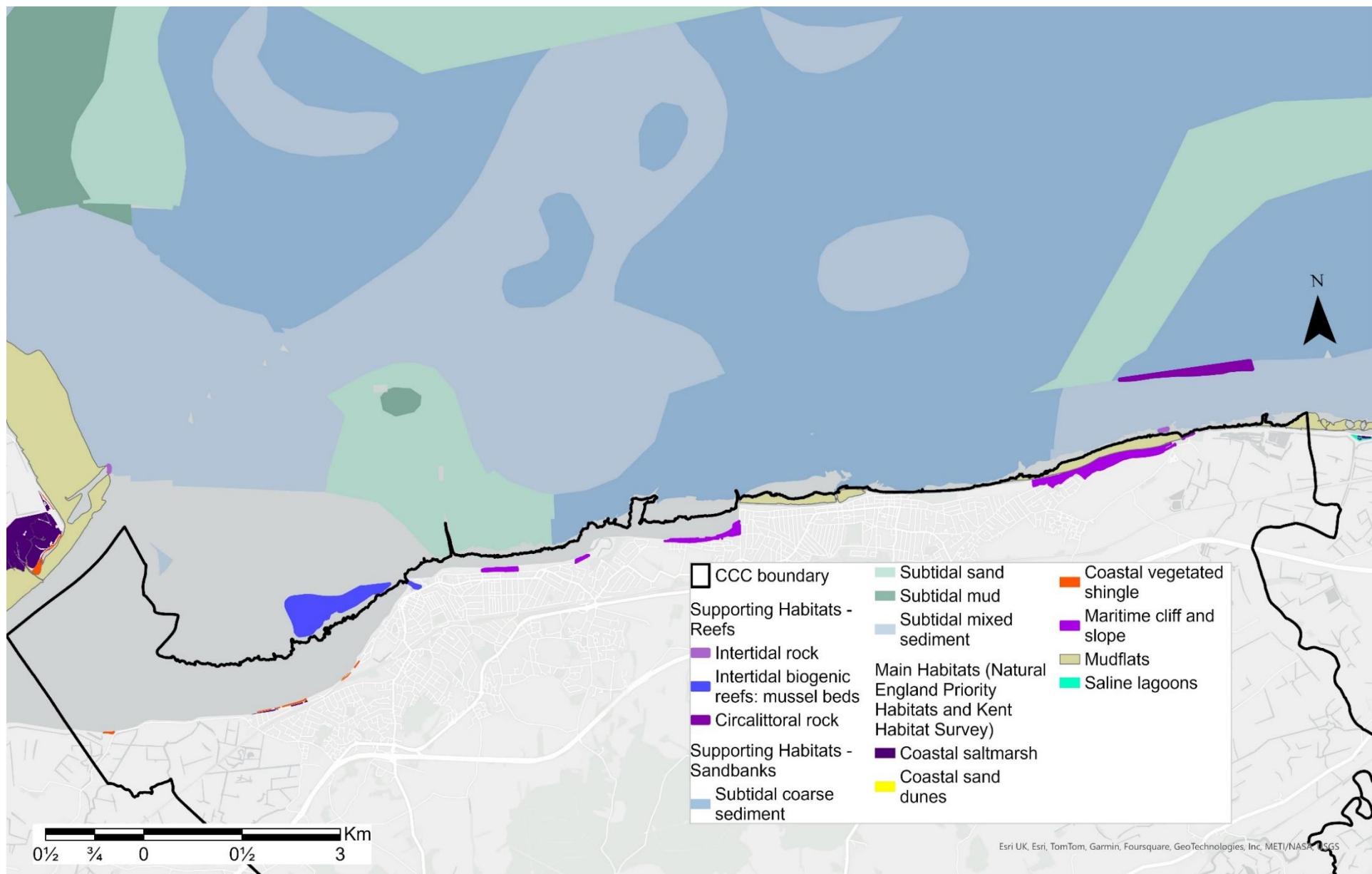


Seasalter mudflats

Plan 10: Coastal and Marine Protected Areas



Plan 11: Coastal and Marine Habitats



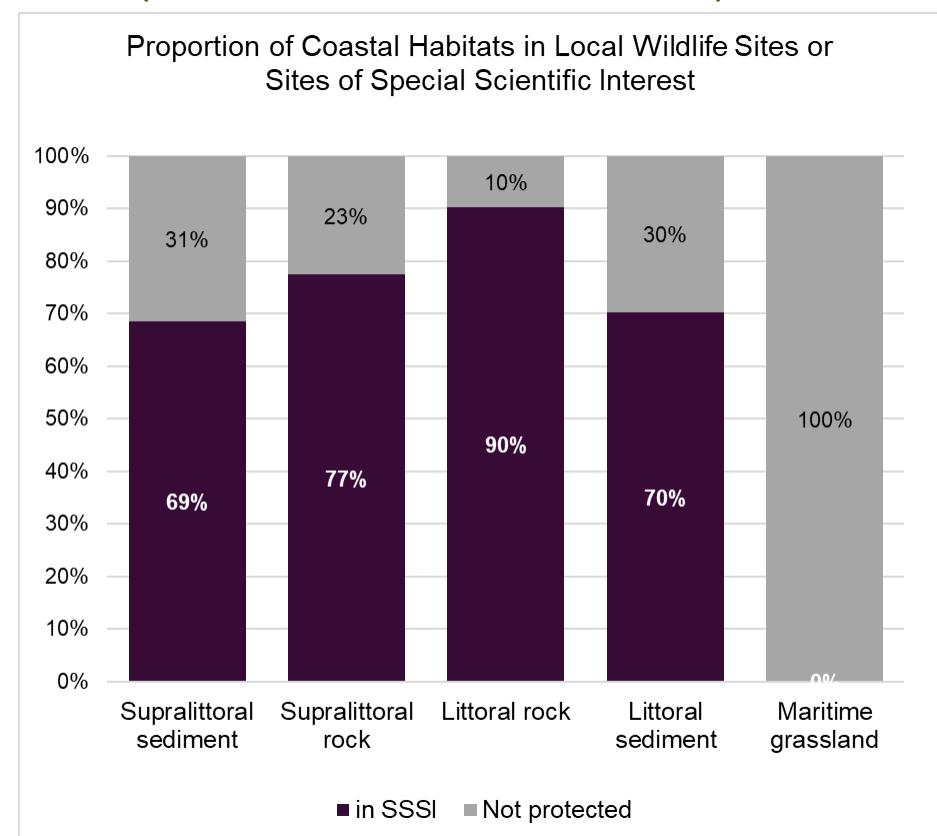
Summary of Coastal Habitats in Canterbury District¹⁶

Habitat	Hectares	% of Kent's habitat in Canterbury District	% of all Canterbury's coastal habitat which is of this type	% cover of whole district	% in Local Wildlife Site or Site of Special Scientific Interest
Supralittoral sediment*	40.3	1.6%	2.8%	0.1%	69%
Supralittoral rock*	4.6	2.1%	0.3%	0.0%	77%
Littoral rock#	67.2	9.3%	4.7%	0.2%	90%
Littoral sediment#	1310.0	10.9%	91.3%	3.9%	70%
Maritime grassland	12.6	37.9%	0.9%	0.0%	0%
Total	1389.8	-	100%	4%	-

* Supralittoral is above the high tide line and is not submerged by water

littoral is the shallow water which extends from the shoreline

Proportion of Coastal Habitats in Sites of Special Scientific Interest (no habitats are in Local Wildlife Sites)



Mudflats, Beaches and Sandbanks



The large areas of exposed mudflat at low tide are incredibly important feeding areas for overwintering birds. Much of the coastline is protected due to the high numbers of these birds. These birds feed during the winter on the north Kent coast ready for their spring migration. If they are disturbed from feeding, for example by dogs being exercised on the beach, they may not gain enough weight for the journey home or to breed successfully. For this reason, the Bird Wise projects operate in Canterbury to raise awareness of the importance of not disturbing the birds.



Oystercatchers are one of the birds which feed on exposed coastal mudflats

Another important and threatened habitat is seagrass beds. They provide essential nursery grounds for fish, food for birds, and habitat for a range of invertebrates. They play a vital role in the health of marine habitats. Many seagrass species also help absorb and store carbon meaning they can also play an important role in tackling climate change. There remain some small areas of seagrass in the eastern end of the district.

There are also some very small areas of coastal vegetated shingle, but this is fairly limited in comparison with other areas of Kent. Nonetheless it is an important habitat which supports some very rare and specialised plants.

Long Rock (Swalecliffe) is a particularly interesting area and is internationally protected. This very small spit has both fresh and saline waters, with a range of very specialist plants and animals. It is also one of the locations of the incredibly rare Hog's Fennel, which supports the equally rare Fisher's estuarine moth. These species are found in only a handful of locations in Kent and Essex. This area is also popular for recreation, but this can be detrimental to the wildlife. A project has been implemented to help to prevent damage to the habitats and disturbance of birds.

Despite the coastline being protected by sea defences and therefore highly modified from its natural state, nature still finds a home on the boulders and armoury. Areas such as Hampton Pier, which was once set up to farm oysters, has now been reclaimed by nature and has some interesting and unique habitats.

Maritime Cliffs

Bishopstone Cliffs to the eastern end of the district are sandstone cliffs. As well as being important for wildlife, including nesting sand martins, the cliffs are significant for their fossils. Bishopstone Glen runs inland and forms an area of interesting habitats. The cliffs are highest to the east but there are sloping landward areas at Beltinge Cliff and The Downs east of Herne Bay, west of Hampton Pier and at Tankerton (Whitstable).

There are unique coastal grasslands on the tops of the cliffs. In some of these areas is found Hog's Fennel and Fisher's estuarine moth as well as other coastal grassland species.

Offshore

There are reefs off the coast, particularly blue mussel beds off Whitstable. They are a complex habitat that provide food and shelter for many species.

The area is also renowned for its oysters – however, the once extensive beds of native oysters are severely threatened. The Pacific oyster, native to north-east Asia was introduced to the UK by the government in 1964 to offset the decline of the native oyster. It was believed they would not reproduce due to low sea temperatures. However, they are now breeding and are a problem on the Canterbury coastline, causing a threat to a range of native species including the blue mussels.



Our Coast and Sea Species



Sand Martin

- **Coastal**
- The smallest of the martins, these birds breed in cliffs, returning each year from Africa.



Hog's Fennel

- **Coastal grassland**
- A very rare coastal plant restricted to north Kent and only a few other places in the UK



Lapwing

- **Coastal and freshwater grazing marsh**
- A bird of wet grassland. Distinctive 'peewit' call. Forms large flocks.



Fisher's Estuarine Moth

- **Coastal grassland**
- A very rare moth, which feeds exclusively on the also very rare Hog's Fennel



Redshank

- **Coastal grazing marsh**
- A bird of marshes and mudflats. As its name indicates - it has red legs.

Threats and Pressures on Coast and Sea

Climate change: Climate change will have a profound impact on coastal and marine habitats and species. These are particularly vulnerable. From increased erosion, loss of habitat, warming seas and changes in the distribution of species, the changes will be significant. Most of the coastline is hard engineered so coastal squeeze will be very relevant in the district.

Pollution: Water flows from the Oyster Coast Brooks into the sea. The quality of the water has a direct impact on the habitats and species of the coast and sea. There are also sewage outfalls on this coastline. If there is too much sediment from watercourses or outfalls, this can cause smothering. If there are too many nutrients this can exacerbate algal blooms.

Non-native species: Non-native species can out-compete native wildlife. Some species may become more prevalent due to climate change. The Pacific oyster is a threat to marine life and there are others non-native species, including the slipper limpet and Manilla clam. Cord grass also out competes and displaces native vegetation, reducing food sources for native species. It also alters sediment composition impacting the distribution of invertebrate prey for birds and fish.

Recreational pressure: The coast is popular for recreation, all year round. This results in pressures on over-wintering birds particularly from dogs. Habitats and species can also be trampled. Activities on the water such as jet skiing can also be detrimental to wildlife.

Climate Change Sensitivity of Coast and Sea¹⁷

There is evidence that the seas around the UK are warming with a trend around 0.3°C per decade over the past 40 years.

The sea level has also risen by around 12-16cm since 1900. There is also evidence that there are more storms and an increase in wave height. This has an impact on coastal geomorphology and rates of erosion and accumulation of material along the coastline.

Sea level rise also results in 'coastal squeeze'. This happens where there is a hard structure along the coastline which means that any intertidal habitat is reduced as it cannot expand inland. This is the case in Canterbury District.

Climate change is having a range of other effects on coastal and marine habitats and species. Seabirds are showing a decline across the UK, plankton species and communities are altering and the range of marine mammals is changing. All of these effects are changing the balance of ecosystems.

Climate change can make conditions more favourable for invasive species such as the Pacific oyster, which is already a problem on the Canterbury coastline.

Actions Supporting the Coast and Sea

- BA10: Partner with Foreshore Services on marine biodiversity and environment related initiatives.

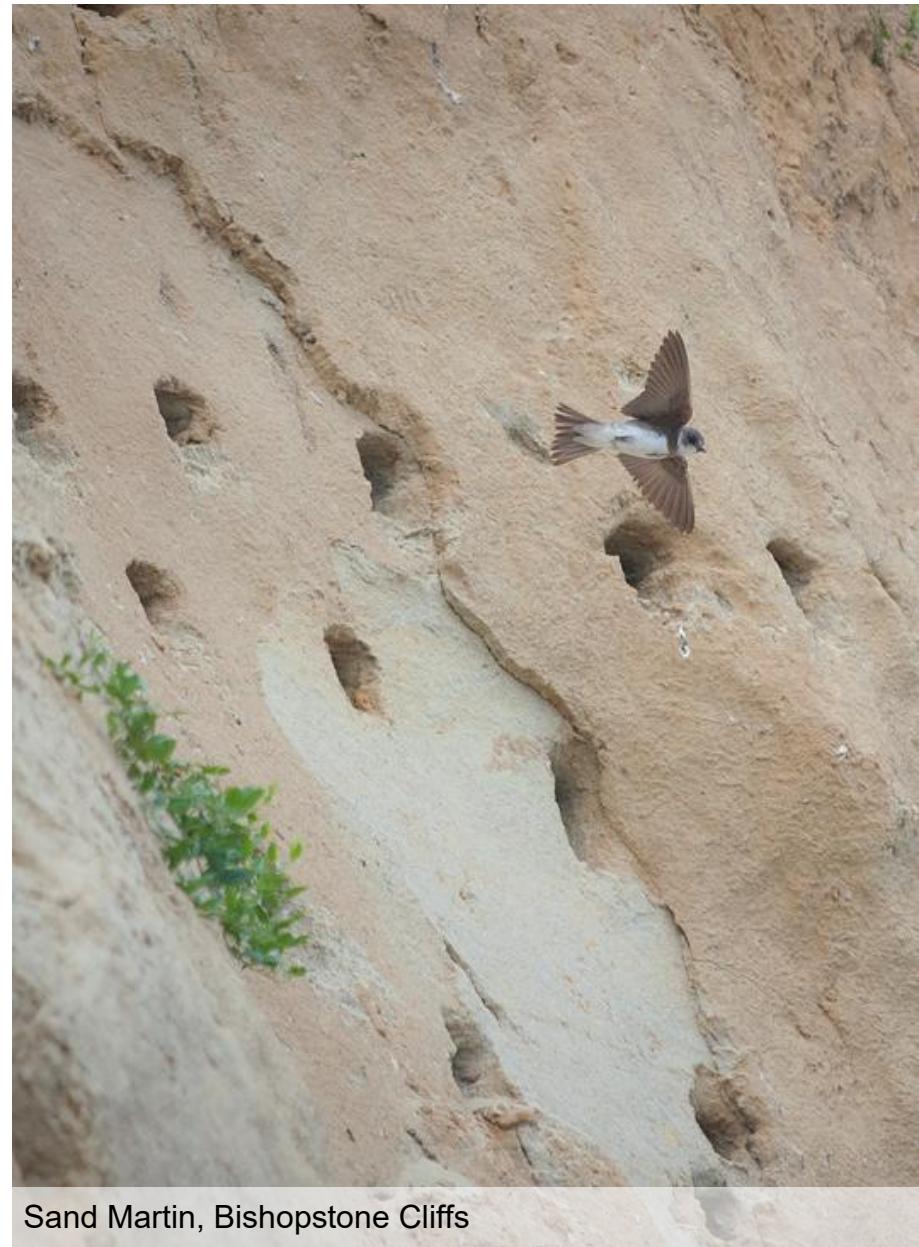
Related actions in Canterbury City Council Strategies

Green Infrastructure Strategy

- Delivery of the Strategic Access Management and Monitoring strategy to protect coastal birds from recreational disturbance.
- Improvements to the Oyster Coast Brooks, which will reduce pollution entering the sea.
- Management measure at Long Rock to minimise negative recreational pressure.
- Measures to improve water quality inland, which has an impact on water flowing into the sea.

Pollinator Action Plan

- Supporting the rare pollinator species associated with coastal grassland, including the Fisher's estuarine moth and rare bumblebee species.



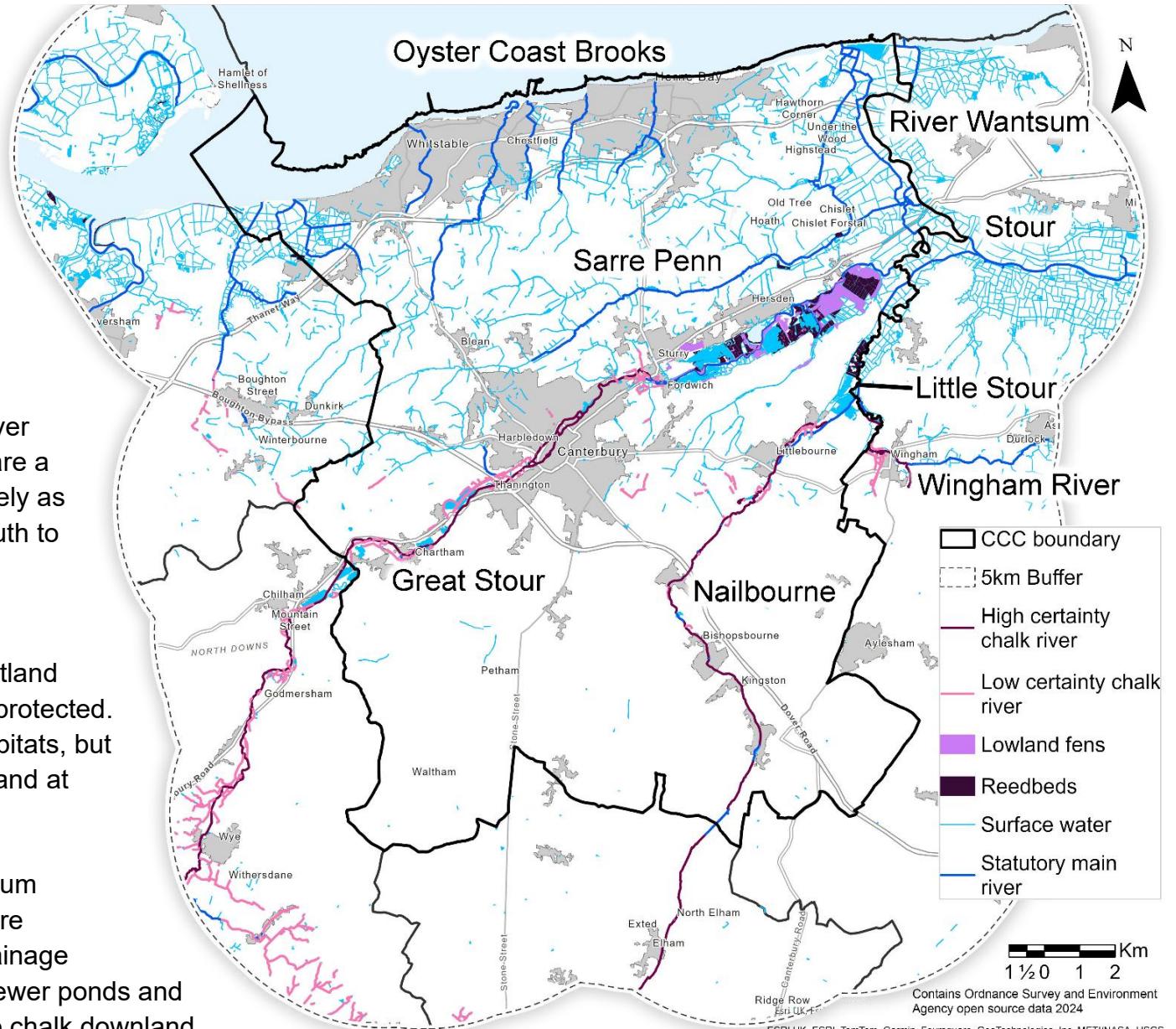
Sand Martin, Bishopstone Cliffs

Rivers, Freshwaters and Wetland Habitats

The Great Stour is the largest river in the district. It flows through rural areas into Canterbury and then through Stodmarsh and Hacklinge Marshes. For part of its length, it is chalk river – one of several such watercourses in Canterbury District. Smaller watercourses flow into it – the Sarre Penn, Whitehall Dyke, Little Stour and Wingham River and the River Wantsum. On the coast there are a series of short watercourses, known collectively as the Oyster Coast Brooks, which flow from south to north. Several are now culverted and flow underground.

The complex of lakes, ponds, ditches and wetland habitats around Stodmarsh is internationally protected. This is the largest single group of wetland habitats, but there are other areas around the Little Stour and at Thanington and Chartham.

The Wantsum Channel, with the River Wantsum flowing through it, and the Seasalter Levels are expanses of low-lying wetland, with many drainage ditches, dykes, ponds and pools. There are fewer ponds and watercourses in the south of the district in the chalk downland areas due to the under-lying permeable chalk.

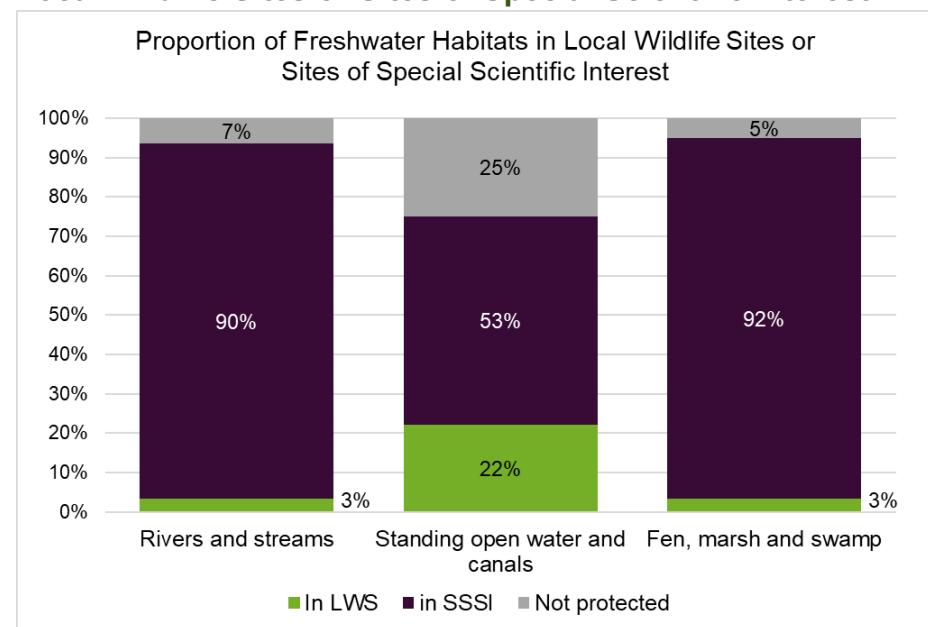


Plan 12: Rivers, Freshwaters and Wetland Habitats

Summary of Rivers, Freshwaters and Wetland Habitats in Canterbury District¹⁸

Habitat	Hectares	% of Kent's habitat in Canterbury District	% of all Canterbury's grassland habitat which is of this type	% cover of whole district	% in Local Wildlife Site or Site of Special Scientific Interest
Rivers and streams	609.5	9.3%	49.5%	1.8%	3%
Standing open water and canals	370.8	8.0%	30.1%	1.1%	22%
Fen, marsh and swamp	250.0	27.5%	20.3%	0.7%	3%
Total	1230.3	-	100%	4%	-

Proportion of Rivers, Freshwaters and Wetland Habitats in Local Wildlife Sites or Sites of Special Scientific Interest



Chalk Rivers and Streams



There are several chalk rivers and streams in the district. They are extremely rare with only an estimated 200 worldwide. They are mainly fed by underground water which means that the flow is more constant than other watercourses. The water is also very clear as it has been filtered by the chalk. This means they are particularly good for wildlife, including birds such as Kingfishers, fish including Brown Trout and eels, specialist plants such as Watercress and a host of aquatic insects.

Some of the rivers in the district show the typical characteristics of chalk watercourses – the Great Stour as far as Fordwich and the Nailbourne and the Little Stour. Others are classified as chalk streams but don't have typical characteristics, including the Whitehall Dyke west of Canterbury City and the Wingham River.

The Nailbourne is a particular type of chalk stream called a winterbourne. Winterbournes do not flow all the time and will appear at certain times – usually in the winter, when the water table is high enough.

Ponds and Lakes



Ponds are important for a huge range of wildlife including birds, mammals, fish, amphibians and insects. Some live in ponds, some use them for food, shelter and to complete their lifecycles.



River Nailbourne in flood

Historically ponds were common on farmland and in villages as a water supply. However there has been a large decrease in ponds with an estimated 75% lost since 1945.¹⁹

It is not known how many ponds there are in Canterbury District or whether there has been any change in numbers in recent years. There are ponds mainly in the northern part of the district and especially in the Wantsum Channel, Seasalter Levels around Fordwich and Littlebourne and also across The Blean. There are fewer in the south of the district where the under-lying geology is chalk. In this area, dew ponds were created in the 18th and 19th centuries. These are human-created small ponds on top of chalky hills to provide water for grazing livestock.

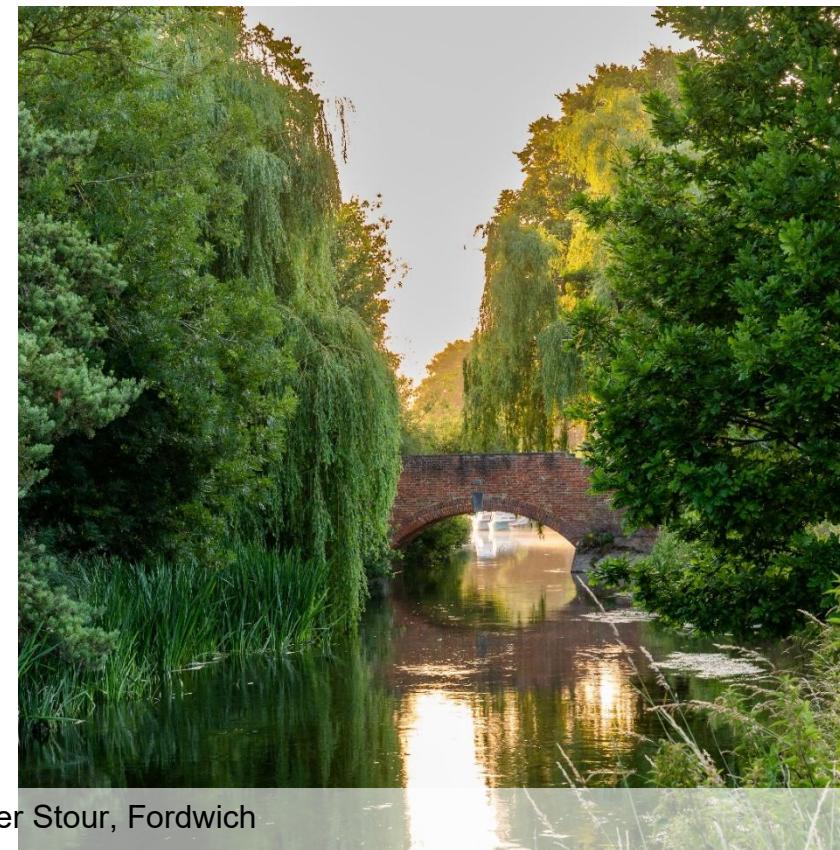
There are also larger lakes in the district. These are concentrated around Stodmarsh and Littlebourne and Thanington and Chartham areas. These are often the result of human activity, for example collapsed colliery workings and gravel extraction.

Reedbeds and Fens

Reedbeds are wetlands that are dominated by common reed and where there is standing water for most of the year. They are usually found around lakes and pools but also on the edges of slow-moving rivers and streams and alongside ditches and marsh dykes. They support specialist species including Reed Warbler, Bearded Tit, one of the UK's most threatened birds the Bittern and the nationally rare Water Vole.

Canterbury District has one of the largest areas of this habitat, around Stodmarsh and along the River Stour. There are other smaller areas around the lakes at Littlebourne, along the Sarre Penn and at Seasalter Levels.

Fens are wetlands that form peat and occur on waterlogged, alkaline soils where the water table is at or very near the surface. It is a very rare habitat in Kent but there are areas within Stodmarsh, along with other wet grassland which has a unique range of species.



River Stour, Fordwich

Our Rivers, Freshwaters and Wetland Species



Common Reed

• **Wetlands**

- Reedbeds are home to a range of species - they support food and birds, insects and fish and provide places for water voles to burrow



Water Vole



• **Wetlands**

- These mammals are found in a range of wetland habitats but are under threat



Lapwing



- **Coastal and freshwater grazing marsh**
- A bird of wet grassland. Distinctive 'peewit' call. Forms large flocks.



Reptiles and Amphibians

• **Wetlands**

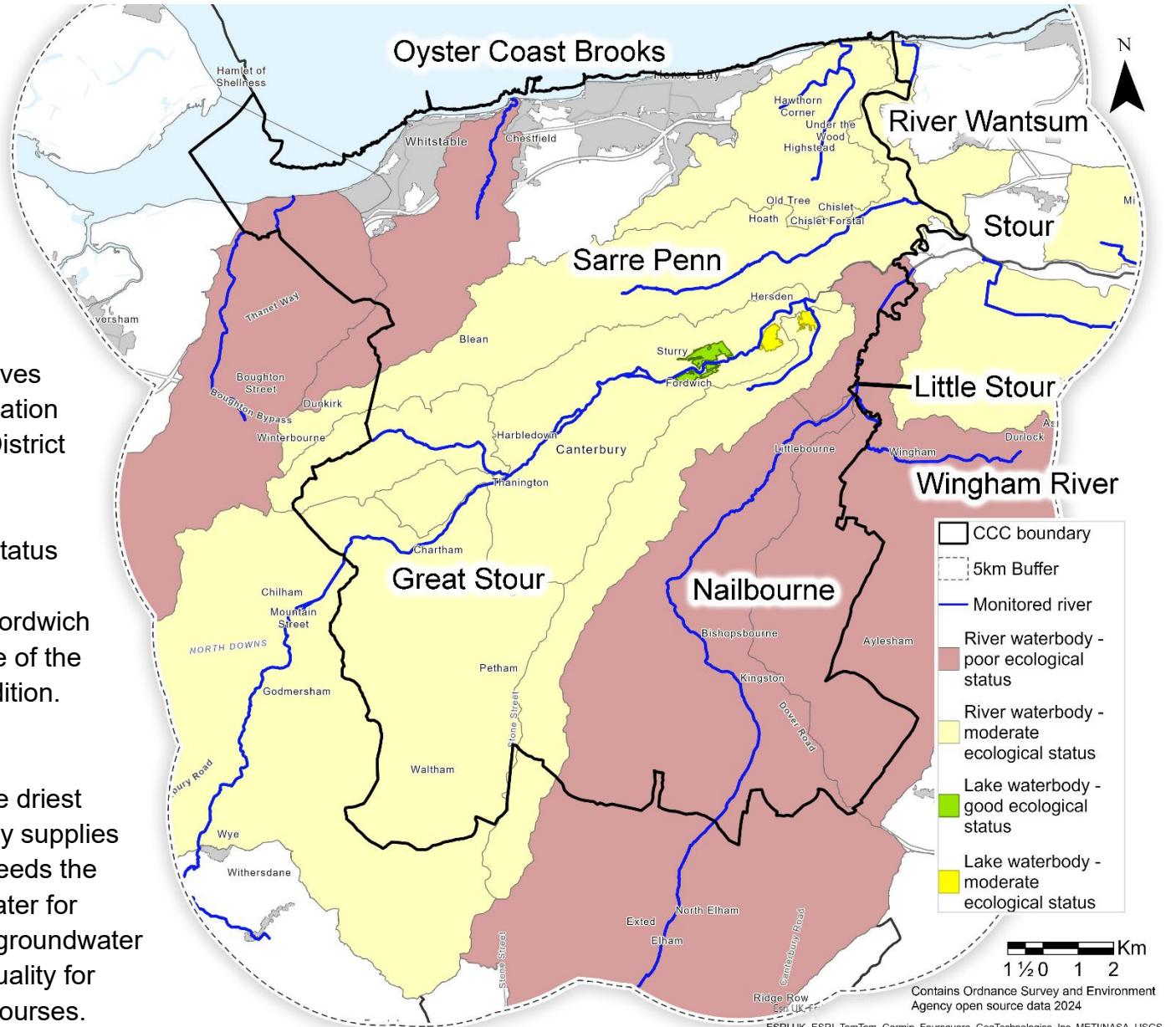
- All wetland habitats are important for a range of reptiles and amphibians, which use them at different phases in their life

Threats and Pressures on Rivers, Freshwaters and Wetland Habitats

The following threats and pressures cause the loss or reduction in the nature conservation value of these habitats. Environment Agency data gives information on these threats and pressures within the district. The State of Nature in Kent Report gives information relevant to Kent; however, information on the extent and impact within Canterbury District is incomplete.

Plan 11 gives an overview of the ecological status of waterbodies which are monitored by the Environment Agency. Only one waterbody, Fordwich Lake is in good ecological condition and none of the river waterbodies are in good ecological condition. The main reasons are detailed below.

Water abstraction: East Kent is one of the driest places in the country. Groundwater not only supplies water for human consumption, but it also feeds the chalk rivers and streams. Abstraction of water for public, commercial and farming use, from groundwater and watercourses, has a direct effect on quality for wildlife and can lead to low flows in watercourses.



Plan 13: Ecological condition of Waterbodies

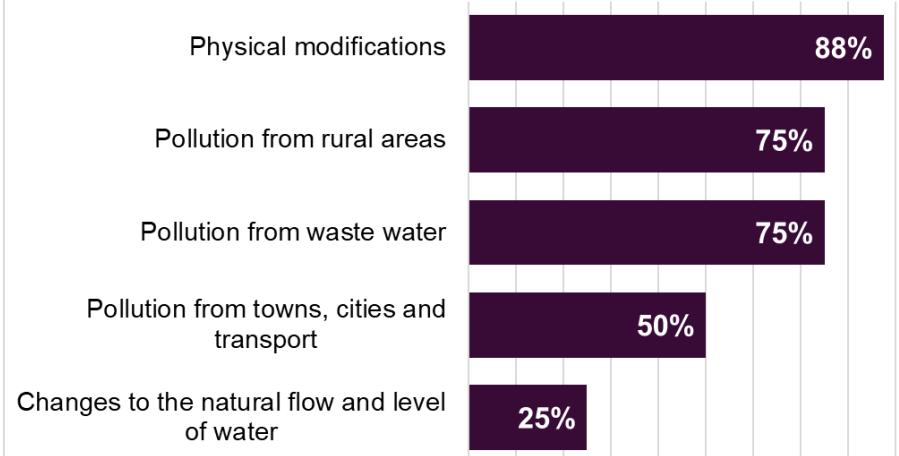
Hard engineering and structures on watercourses: Many watercourses in the district have been modified, culverted, have structures on them or have been engineered in other ways. In some cases, such as the Oyster Coast Brooks, the original watercourse is now completely underground. Hard edges and culverting reduce the wildlife value of the watercourse. Structures, such as weirs and dams obstruct fish migration and is a factor in low fish populations in the catchment.

High levels of nutrients: Phosphates in particular are high across the catchment, but nitrates can also be high. Water industry discharges are the biggest contributor to phosphorus in waterbodies. Although sewage is treated the final effluent can still contain levels of phosphorus that can be detrimental to the environment. In addition, permitted overflows after storms may mean that untreated wastewater enters the watercourse. Diffuse pollution comes from agriculture due to the runoff from fields. Private septic tanks can also result in pollution. An excess of nutrients causes eutrophication, which causes an excess in plant growth, including sometimes dangerous algal blooms, and a decrease in oxygen from reduced light and decomposing plants. This has a very detrimental effect on the wildlife of the waterbody, which the Stour Environmental Credits scheme is seeking to address.

Other pollutants: Other pollutants are present in the waterbodies in the district. Although sometimes in small amounts, some of these are harmful to aquatic life and can increase in concentration as they move up the food chain.

Reasons for river waterbodies in Canterbury District not reaching good ecological status (8 river waterbodies)

Reasons for river waterbodies not reaching good ecological status - percentage of river waterbodies affected



Invasive non-native species: Pond habitats, but not exclusively, are also affected by aquatic invasive non-native flora, such as Australian Swamp Stonecrop, New Zealand Pigmyweed, and Parrot's Feather. These plants out-compete native species and can be very prolific, especially where there are also increased nutrients.

Direct loss: Ponds and wetlands can be filled in or be lost due to silting up or land can be drained for farming or development.

Climate Change Sensitivity of Rivers, Freshwaters and Wetland Habitats²⁰

		Rivers and streams	Standing Water	Reedbeds	Fens
	Overall climate change sensitivity	High	High	Medium	High
Cause	Potential impacts				
Hotter summers	Increased water temperature affecting the abundance of some species. Decline in cool-water species.	✓		✓	
	Changes in the timing of the seasons could affect individual species and consequently whole food webs.	✓	✓	✓	✓
	Low flows or reduced water levels reducing extent or causing temporary loss of habitat, leading to increased competition, unfavourable conditions for fish and other species and increases in eutrophication for some habitats.	✓	✓		
Drier summers	Drying out of the habitat leading to loss of species and dominance by species which prefer drier conditions and loss of species which depend on this habitat.			✓	✓
	Increased abstraction of water will put habitat under even greater stress.	✓			
	Greater abundance of non-native invasive species.	✓	✓	✓	✓
Wetter and warmer winters	Increase nutrient loading having impacts on species and habitats. Increased silting and sediment.	✓	✓	✓	✓
	More flooding making it more difficult to manage sites.			✓	✓
	Increased connectivity between sites means that floods can increase spread of non-native species.	✓			
Sea level rise	Saline intrusion for sites near the coast.		✓	✓	✓

What our Review of Evidence has Shown

Poor ecological status of waterbodies and scarcity of water are significant concerns in the district.

Most waterbodies – rivers and standing waters – are in poor ecological condition. There are many factors contributing to this. The main reasons are physical modifications and pollution from rural land and wastewater treatment. Most of these are not entirely within the control of Canterbury City Council, but the council can support others in taking action to improve water quality. Actions within the Canterbury Tree, Woodland and Hedgerow Strategy and the Green Infrastructure Strategy can support reducing runoff from agricultural land. The Local Plan includes policies to ensure that new housing is water efficient, and that there is adequate water supply and wastewater treatment.

Stodmarsh is an area of particular concern in relation to increased nutrients.

In 2020 Natural England, the government's nature conservation advisor, advised local planning authorities that new development must not increase the level of nutrients nitrogen and phosphorus in the River Stour as they are having a negative impact on Stodmarsh National Nature Reserve. The council is working with partners to develop a catchment wide strategy to deliver mitigation for the impacts of planned development affecting water quality at Stodmarsh. This includes a sequential approach to embedding mitigation within development sites, such as through new high quality wastewater treatment facilities, along with developing wetlands which can remove harmful nutrients from the watercourses which feed into Stodmarsh.

There is a need for greater awareness of the impact of water use on the natural environment.

Greater awareness of the connection between everyday use of water and the impact on water scarcity and pollution can help to improve water quality and quantity and support nature. Wasteful consumption can further stress aquifers, which can lead to low flows in chalk rivers. Thoughtless disposal of chemicals down the drain can lead to pollution. Disposal of invasive pond plants or other species can have a very detrimental impact on nature. Conversely, small changes in behaviour by very many people can help to improve the water environment. There are also opportunities for communities to take positive action to support their local streams, rivers and ponds through clean-ups and positive improvement projects.

Working in partnership is needed to deliver projects which improve the water environment.

The water environment is very inter-connected with many organisations responsible for water quality and supply and many land uses having an impact. Working at a landscape-scale and with partners can deliver particular benefits. Water environments operate at the scale of catchments and rivers and streams are quite obviously connected. Projects such as removing barriers to fish can help them to move along far greater lengths of the river. Projects to improve the River Stour corridor through the district have been underway for several years and are continuing through the Canterbury Riverside Strategy with a Regional Park being explored. A project to work at a landscape-scale around the River Wantsum is also included in this strategy.

Actions Supporting Rivers, Freshwater and Wetland Habitats

- BA8: Work in partnership to promote biodiversity opportunities along the Great River Stour and explore the concept and establishment of a possible Great Stour Regional Park.
- BA9: Support partnership opportunities for landscape-scale works within the Wantsum Channel, connections to The Blean and Pegwell Bay E3 initiative, and Canterbury to Coast.
- BA12: Support initiatives and projects promoting the health of all our waterways and ensuring nutrient neutrality, including working with Natural England to support their restoration of Stodmarsh.
- BA21: Work with the Canterbury Riverside Group to deliver the Canterbury Riverside Strategy.
- BA26: Consider potential for partnership led external funding strategies for key initiatives / sites including: (a) Old Park and Chequers Wood, and (b) The Wantsum initiative.

Related actions in Canterbury City Council Strategies

Green Infrastructure Strategy

- Improvements to the Oyster Coast Brooks watercourses in Whitstable and Herne Bay, including community engagement.
- Measures to reduce industrial and domestic water consumption and to improve water quality.
- Utilise Sustainable Drainage Schemes (SuDS).
- Support measures to improve water resources in all catchments, encouraging communities to take an active role.
- Enhance biodiversity in the Wantsum Channel and River Stour corridor, including across local authority boundaries.
- Fish passage and water quality improvements along the Little Stour and Great Stour.

Canterbury Tree, Woodland and Hedgerow Strategy

- Conservation and expansion of wet woodland, a rare habitat.
- Environment Agency data used to show where trees could reduce flood risk and where riparian trees may be beneficial.

Pollinator Action Plan

- Water habitats important in life stages of some pollinators.
- Action to improve wildlife along the River Stour.

Canterbury Riverside Strategy

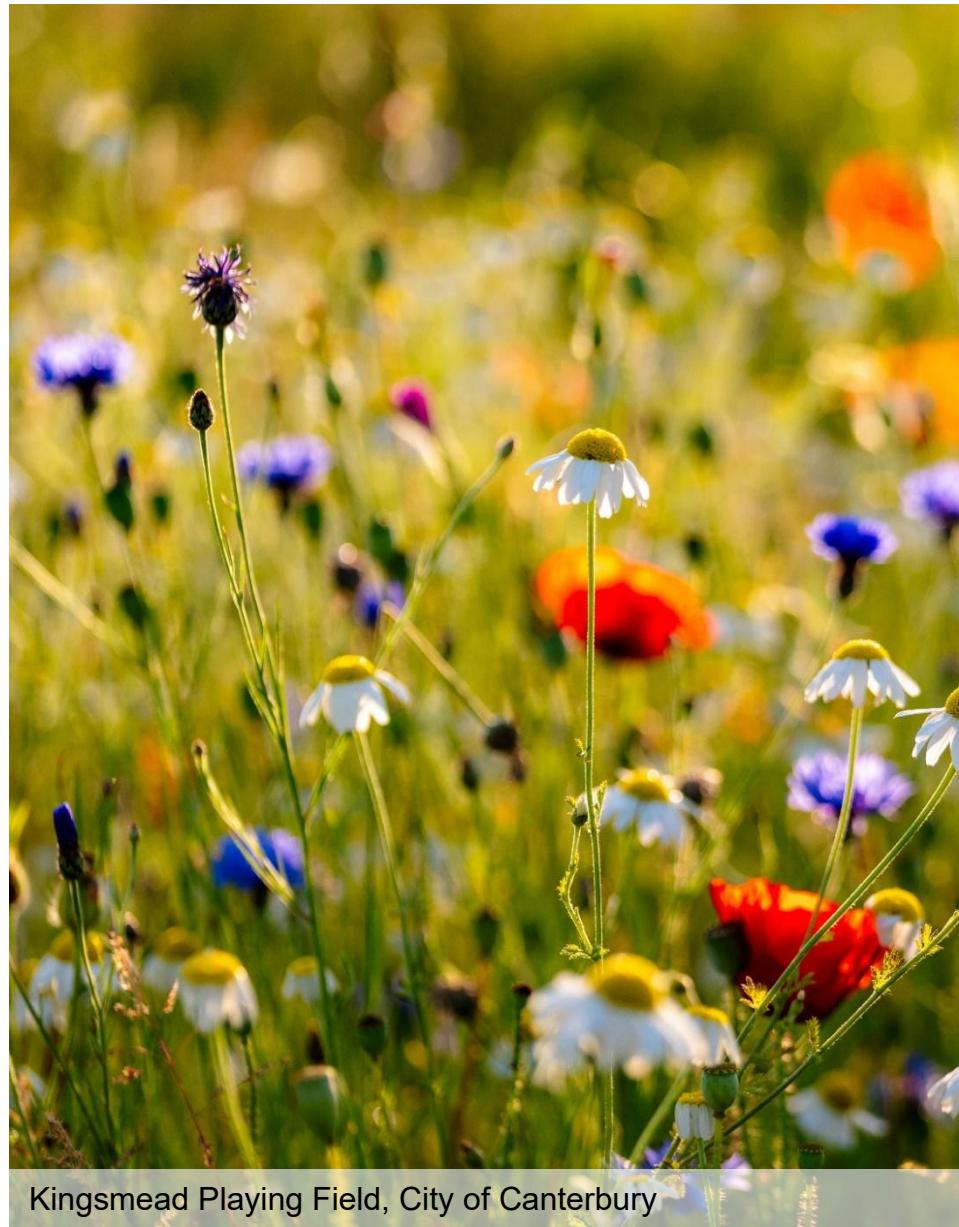
- Protection of scarce wet woodland along the river which can help to provide cooling to mitigate climate change effects.
- Protection and improvement of wildlife habitats – both within the river and along the banks.
- Removal of barriers to fish passage.

Urban Nature

Although human urbanisation has a largely negative effect on nature it can, and does, coexist with us in urban areas.

The Office for National Statistics recorded that in 2022, 13% of the Canterbury District was in 'built up areas'. This includes the entirety of urban areas, including villages, that are 'irreversibly' urban in character. However, within this urban fabric there are many green areas. Kent County Council estimates that 6.8% of the district's undeveloped land is domestic gardens, rather than actual buildings. There also remain many other areas which support nature. These include parks, amenity greenspaces, allotments, churchyards and cemeteries, sports areas and school grounds. Nature is not always considered in their management and more can be done to improve wildlife in the district's urban areas.

Supporting more nature in Wilder urban areas also has the benefit of allowing those who live there – most of the population of the district – to access and enjoy nature for health and mental wellbeing. Nature also provides other benefits for residents, especially through trees, woodlands and hedgerows, which can help to clean the air, regulate temperature and minimise flooding.

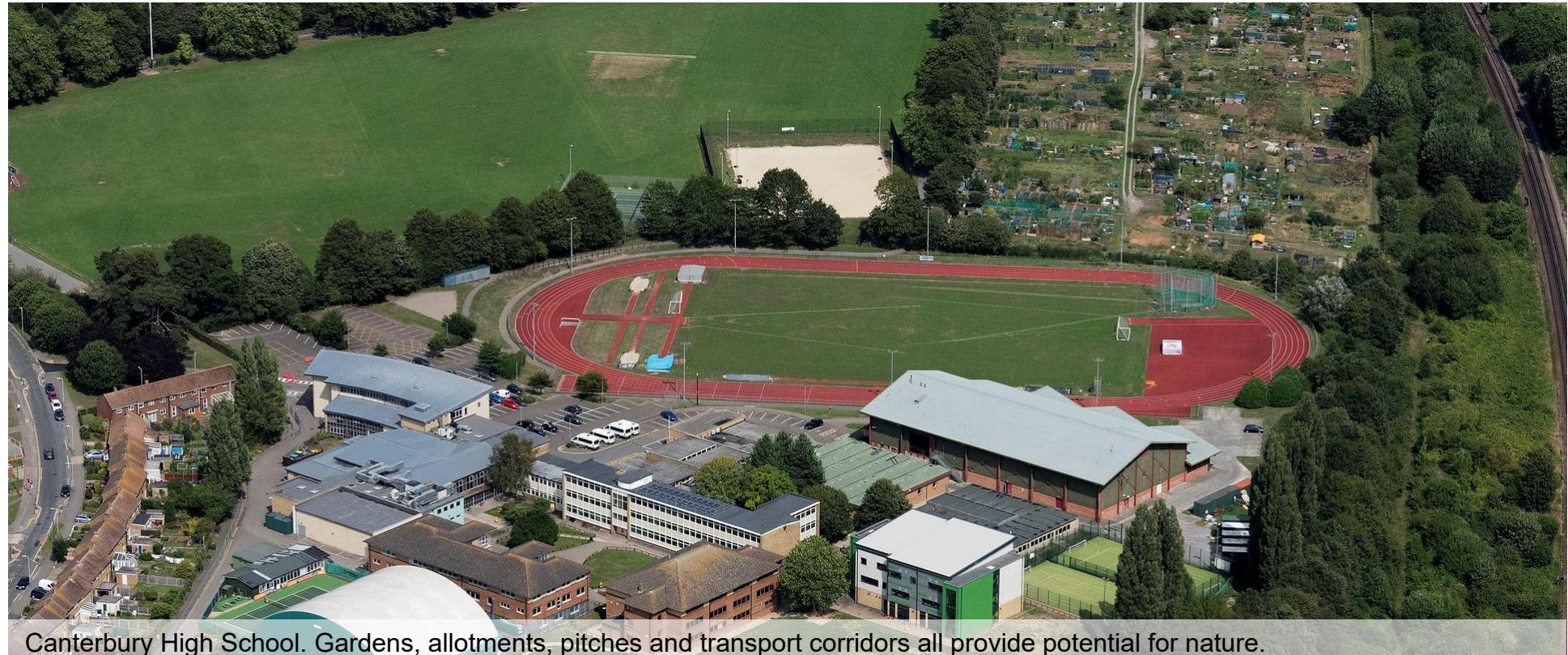


Kingsmead Playing Field, City of Canterbury

It is also a feature of Canterbury District's urban areas that there are high quality nature habitats immediately on their outskirts. This makes the interface between town and countryside particularly important.

In the case of Wilder Whitstable and Wilder Herne Bay, the internationally important coast and marine environment lies to the north and The Blean woodland to the south.

In Wilder Canterbury City, The Blean lies directly to the north. The River Stour corridor runs through the city and, although this has been modified by human activity, it still forms a very important area for wildlife. On the eastern side of the city, Chequer's Wood and Old Park Sites of Special Scientific Interest form the end of an important blue-green nature corridor which continues to the east to internationally important Stodmarsh.

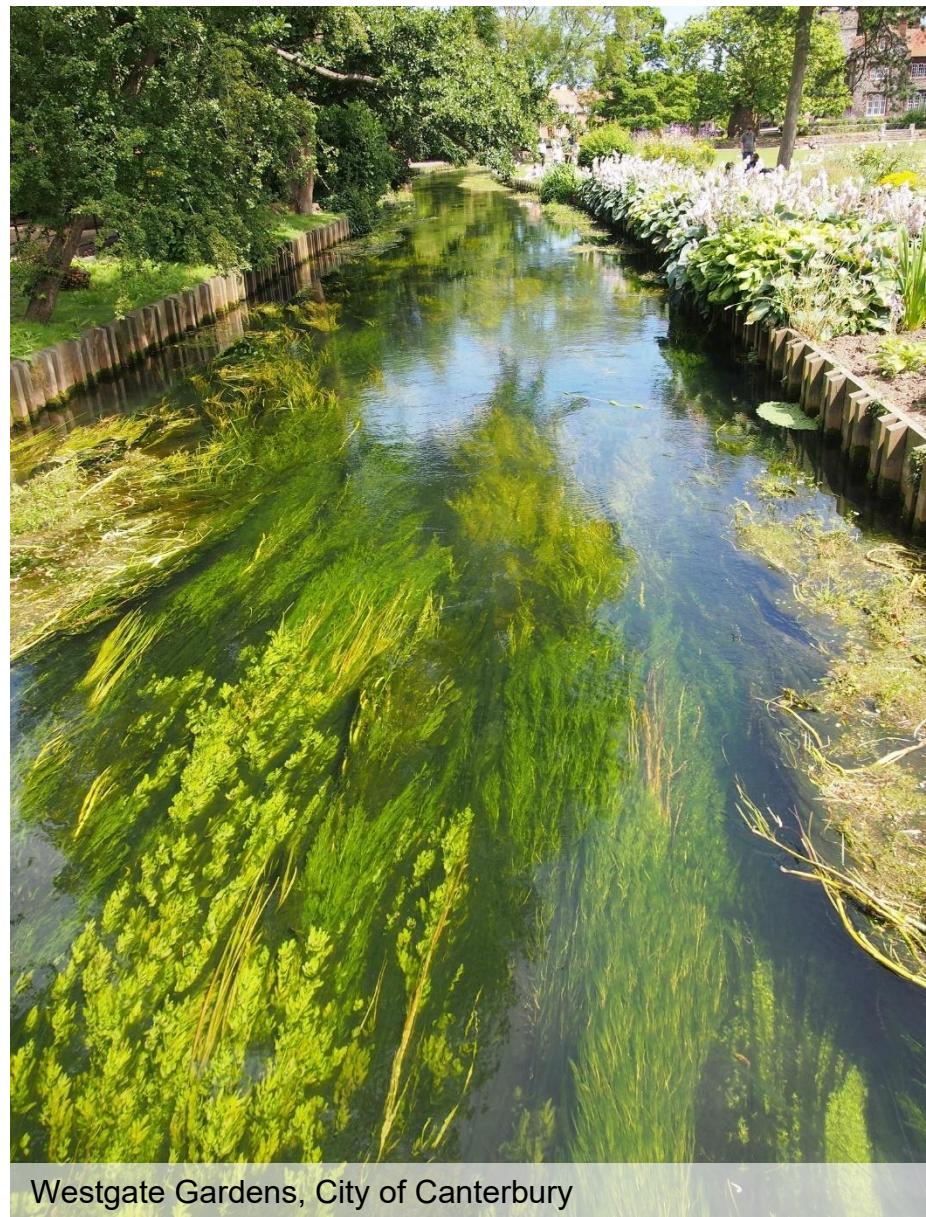


Green and blue infrastructure planning has an important role in ensuring that biodiversity is enhanced. Opportunities include green walls and roofs, better management for nature and increases in urban greenspace, naturalising road verges, more street trees and use of Sustainable Drainage Systems (SuDS).

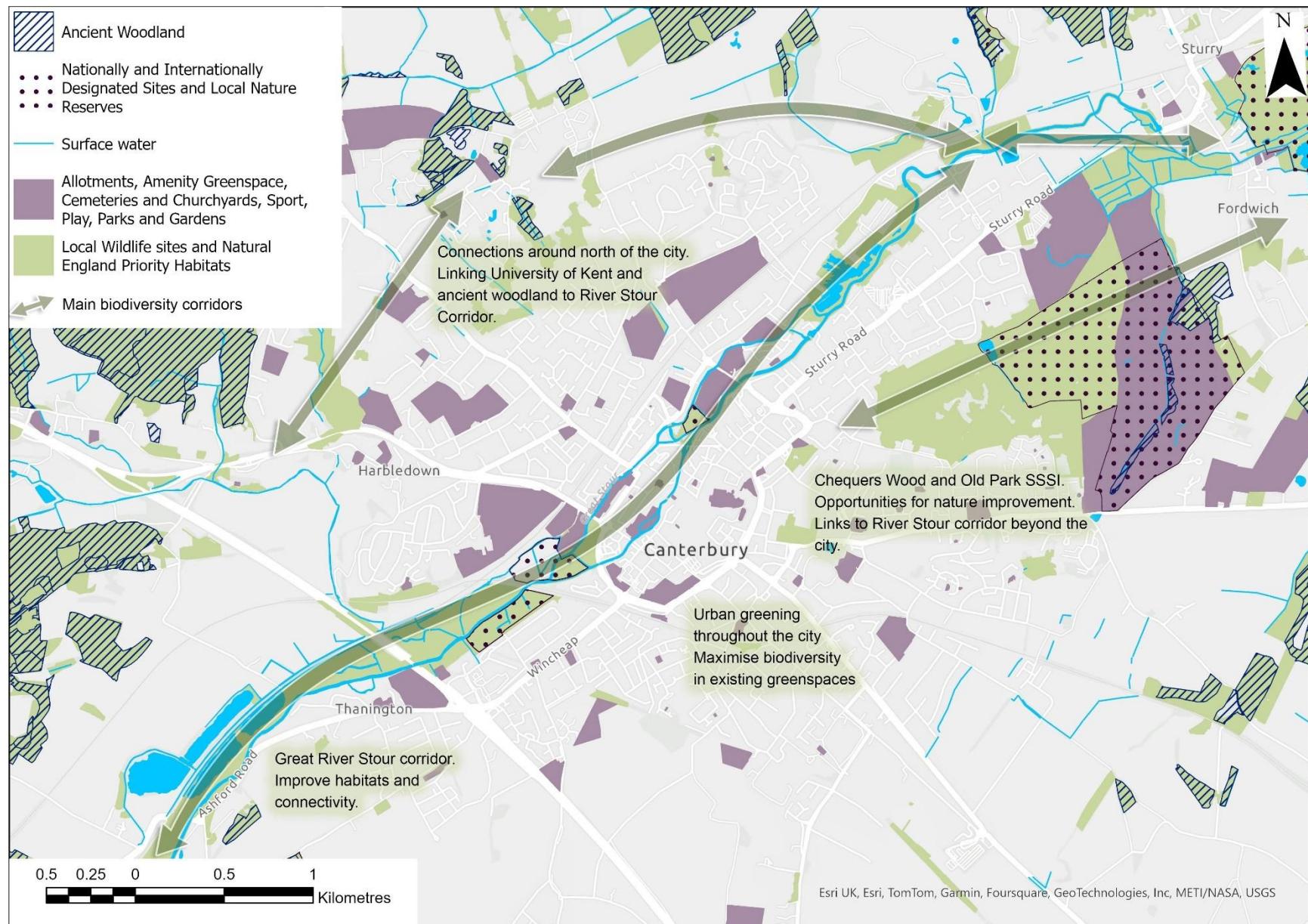
Canterbury District's adopted Green Infrastructure Strategy sets out corridors and actions in all the district's three main urban areas. Communities taking action and everyone playing their part, including in domestic gardens, is highlighted in the strategy.

Brownfield Land

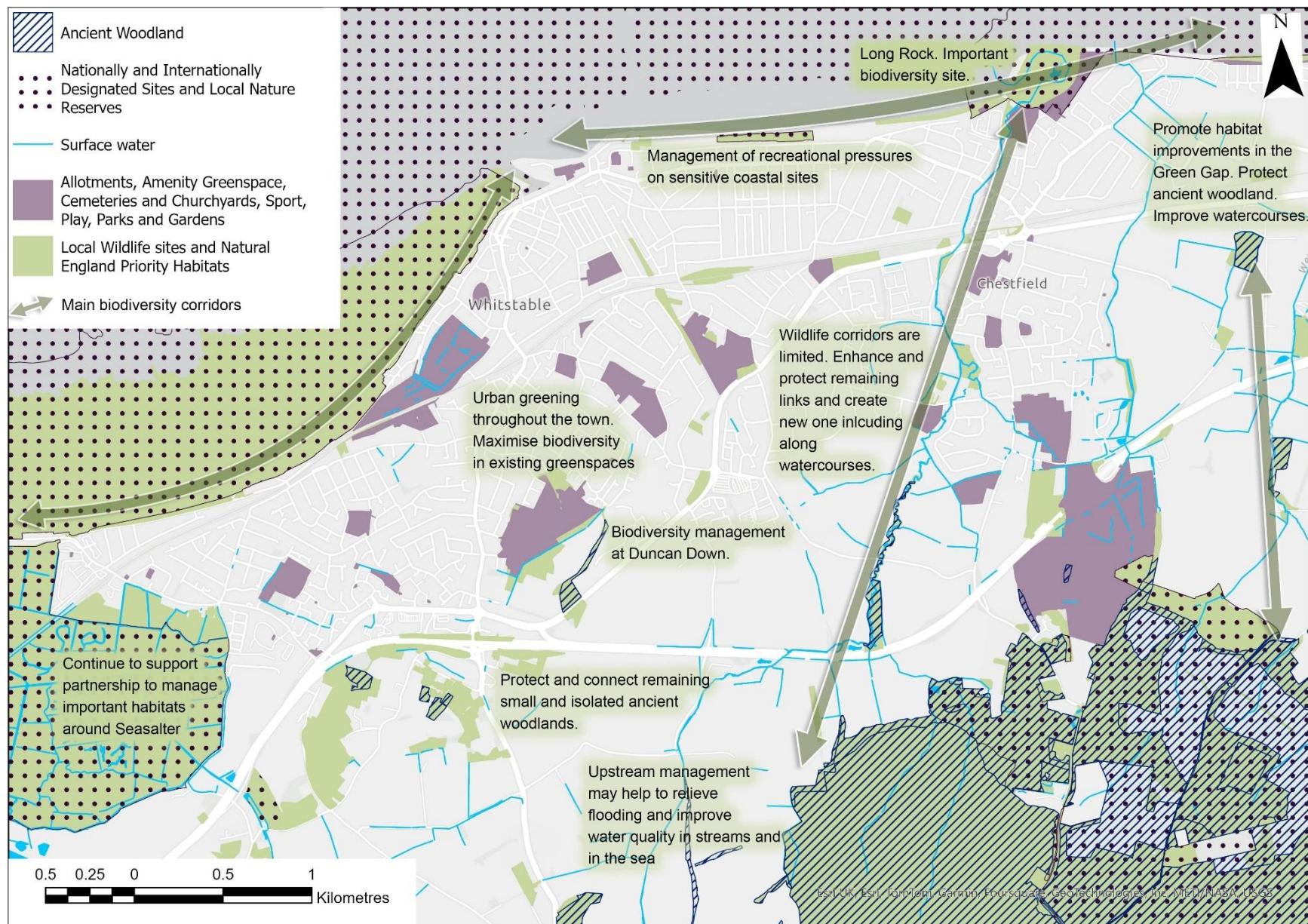
Brownfield land is land that was previously developed but which is no longer in use. These sites are also a priority area for redevelopment under planning law to reduce the amount of other land which is lost to development. Brownfield land is a Kent Nature Partnership priority habitat as, in some cases, brownfield land supports rare and specialist species. This is particularly the case where the site has been undeveloped for a long period of time and nature has established, and not all brownfield sites support wildlife. Canterbury City Council keeps a register of brownfield sites.



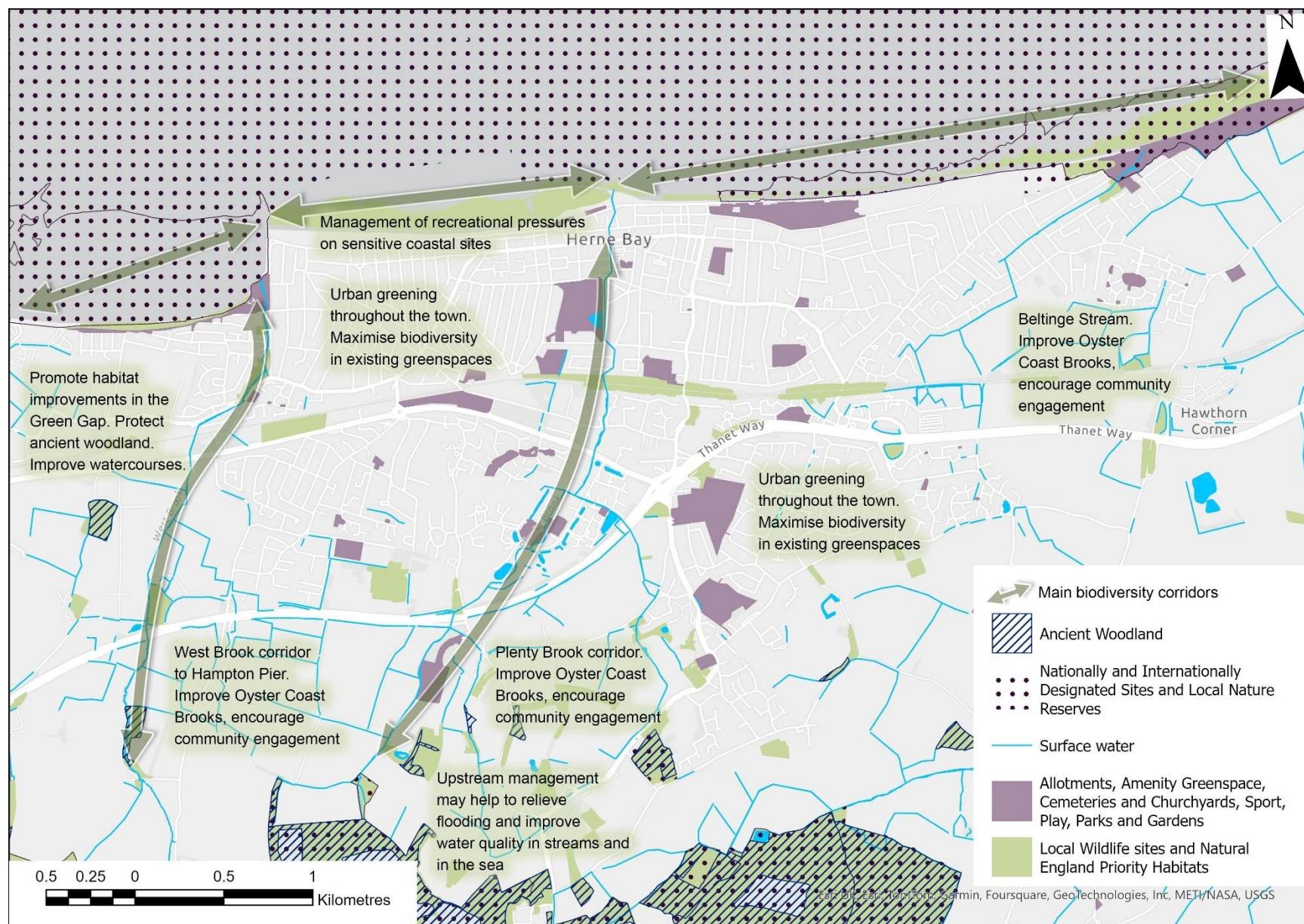
Plan 14: Canterbury City Biodiversity Corridors – Adapted from Canterbury District Green Infrastructure Strategy



Plan 15: Whitstable City Biodiversity Corridors – Adapted from Canterbury District Green Infrastructure Strategy



Plan 16: Herne Bay Biodiversity Corridors – Adapted from Canterbury District Green Infrastructure Strategy



Our Urban Species



Swift



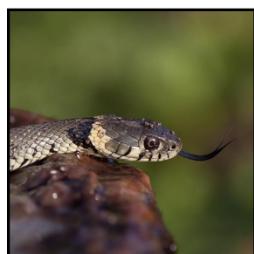
- **Urban**
- Swifts spend their lives in flight, catching small insects. They nest in buildings and new houses can support swifts through swift boxes.



Shrill Carder Bee



- **Urban and coastal grassland**
- A very rare bumblebee only found in a few places in the UK



Reptiles and Amphibians

- **Allotments and Gardens**
- Grass snakes are often found in urban areas, especially where there is water nearby.

Threats and Pressures on Urban Nature

Urban sites are more vulnerable: Urban sites are smaller and are not well connected. This makes them more vulnerable to direct loss, damage, pests and diseases and climate change impacts. Many species cannot move across the hostile urban environment between sites.

Direct loss: In urban areas, the remaining small areas are under threat of being lost to development, or through changes to management, for example paving over front lawns for parking.

Making changes at scale is difficult: Most urban sites are small and to make meaningful improvement for nature requires co-ordination between many landowners.

Negative urban impacts: Invasive species can be an issue in urban habitats – sometimes these are deliberately planted from gardens or have simply escaped. Litter and antisocial behaviour such as fires can also have a negative impact. High levels of recreation can also disturb wildlife.

Green spaces not managed for nature: Many greenspaces are not managed with nature in mind. There is more that can be achieved on sports pitches, in schools and on road verges, as well as in gardens. There is also sometimes a perception that management for nature is neglect or looks untidy. This needs to be challenged and management for nature become the new norm.

Actions Supporting Urban Nature

- BA4: Undertake a strategic review of landowners' and farmers' willingness to deliver biodiversity actions and present results in the form of a "Willingness Map."
- BA8: Work in partnership to promote biodiversity opportunities along the Great River Stour and explore the concept and establishment of a possible Great Stour Regional Park.
- BA11: Seek opportunities to promote the management of the transport network, walking and cycling and public rights of way for habitat conservation, including the opportunity for green bridges.
- BA13: Support Tree Officer in promoting and delivering the Canterbury Hedge and tree planting initiatives across the district.
- BA15: Facilitate the positive land management and the delivery of biodiversity outcomes at the Old Park and Chequers Wood, and surrounding land.
- BA18: Support Contracts' and Canenco's delivery of biodiversity positive grounds maintenance through provision of training and increased awareness.
- BA20: Establishment and management of new Community Gardening / Biodiversity initiatives.
- BA21: Work with the Canterbury Riverside Group to deliver the Canterbury Riverside Strategy.
- BA22: Continue to support and advise Friends of Groups across the district and establish new groups where there is demonstrable need and / or demand.
- BA24: Support Tree Officer in promoting and securing external grants.
- BA26: Consider potential for partnership led external funding strategies for key initiatives / sites including: (a) Old Park and Chequers Wood, and (b) The Wantsum initiative.
- BA28: Review the management of land owned by the council, the universities, schools, Housing Revenue Account, MoD and hospitals, and promote biodiversity measures such as pollinators.
- BA29: Review provision of Local Nature Reserves in relation to growing population. Auditing task - then decide on action.
- BA30: Resource the enforcement of best practice tree planting and maintenance on all development sites.
- BA31: Make maximum use of the opportunity to enhance biodiversity and improve habitat connectivity in planning decisions.
- BA32: Consider adaptive measures (species selection, land management/ use) to mitigate against the impacts of climate change and embark on initiatives to achieve Wilder Canterbury City and Wilder Whitstable and Wilder Herne Bay.

Related actions in Canterbury City Council Strategies

Green Infrastructure Strategy

- Sets out wildlife corridors in urban areas.
- Develop urban greening projects in all three urban areas – including on green space sites not owned by the council, including playing fields, school grounds, industrial and commercial sites, road verges, street trees and pedestrian and cycling routes, working with communities to do so.
- Adapting Canterbury City Council's ground maintenance regime to support nature.
- Linking urban to countryside.
- Delivering new greenspaces.
- Improving biodiversity in and around Old Park.
- New development should retain and provide nature habitat, including trees.
- Improvements to the Oyster Coast Brooks watercourses in Whitstable and Herne Bay, including community engagement.
- Utilise Sustainable Drainage Schemes (SuDS).
- Fish passage and water quality improvements along the River Great Stour.

Canterbury Tree, Woodland and Hedgerow Strategy

- Increasing street trees.
- Encouraging tree planting in urban locations such as school grounds, sports areas, business premises, parks and domestic gardens, where this is appropriate.
- Communities taking action to develop tree plans and increase trees in their local areas.

Pollinator Action Plan

- Adapting Canterbury City Council's ground maintenance regime to support pollinators.
- Supporting urban pollinators, for example through green roofs, planters and flower borders.
- Considering pollinators in planning applications.
- River Stour 'pollinator pathway'.

Canterbury Riverside Strategy

- Enhancing biodiversity habitats throughout urban section of the Great River Stour.
- Improving pollinator habitat, designating Local Nature Reserves and enhancing management of urban riverside spaces for nature.
- Removing fish passage barriers and connecting the river as a functioning ecological corridor through the City of Canterbury.
- Education on the nature of the river and river corridor.
- Leaving areas where nature can be undisturbed.

Sources

East Kent Catchment Improvement Partnership. 2014. The Stour Catchment Plan

Environment Agency Catchment Data Explorer.
<https://environment.data.gov.uk/catchment-planning>

Joint Nature Conservation Committee. Biodiversity Action Plan Habitats.
<https://jncc.gov.uk/our-work/uk-bap-priority-habitats/#list-of-uk-bap-priority-habitats>

Kent County Council. 2023. 'Land use in Kent'.
https://www.kent.gov.uk/_data/assets/pdf_file/0005/205844/Land-use-in-Kent.pdf

Kent County Council / ARCH. 2012. Kent Habitat Survey.
<https://www.kent.gov.uk/business/business-loans-and-funding/eu-funding/assessing-regional-habitat-change>

Kent Downs National Landscape Heritage Ponds Project.
<https://kentdowns.org.uk/our-projects/heritage-ponds/>

Kent Downs National Landscape. 2020. Landscape Character Assessment.
<https://kentdowns.org.uk/landscape-character-assessment-2020/>

Kent Downs National Landscape. 2020. Management Plan 2021 – 2026.

<https://kentdowns.org.uk/management-plan-2021-2026/>

Kent Nature Partnership. 2020. The Kent Biodiversity Strategy 2020 – 2045.

<https://kentnature.org.uk/strategy/kent-biodiversity-strategy/>

Kent Nature Partnership. 2021. State of Nature in Kent.
<https://kentnature.org.uk/state-of-nature/>

Kentish Stour Countryside Partnership
<https://kentishstour.org.uk/about-the-stour-valley/the-river-stour2/crystal-clear-why-chalk-streams-matter/>

Land Use Consultants. 2020. Canterbury Landscape Character Assessment and Biodiversity Appraisal. Canterbury City Council.

Lawton, J.H., Brotherton, P.N.M., Brown, V.K., Elphick, C., Fitter, A.H., Forshaw, J., Haddow, R.W., Hilborne, S., Leafe, R.N., Mace, G.M., Southgate, M.P., Sutherland, W.J., Tew, T.E., Varley, J., & Wynne, G.R. 2010. Making Space for Nature: a review of England's wildlife sites and ecological network. Report to Defra.

https://webarchive.nationalarchives.gov.uk/ukgwa/20130402154501mp_/_http://archive.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf

Natural England. 2014. National Biodiversity Climate Change Vulnerability Model. NERR054.

[https://publications.naturalengland.org.uk/publication/5069081749225472#:~:text=The%20National%20Biodiversity%20Climate%20Change,be%20used%20\(in%20conjunction%20with](https://publications.naturalengland.org.uk/publication/5069081749225472#:~:text=The%20National%20Biodiversity%20Climate%20Change,be%20used%20(in%20conjunction%20with)

Natural England. 2020. Climate Change Adaptation Manual (NE751).

<https://publications.naturalengland.org.uk/publication/5679197848862720>

Tree Council. 2019. Ash Dieback: An Action Plan Toolkit.

<https://treecouncil.org.uk/wp-content/uploads/2019/12/Tree-Council-Ash-Dieback-Toolkit-2.0-2.pdf>

Endnotes

¹ Courtesy of Restore Nature commissioned by Canterbury City Council Environment team, 2025.

² Estimated costs and funding sources do not include cost of CCC officer time.

³ Natural Environment and Rural Communities (NERC) Act 2006 s.40 amended by the Environment Act 2021.

⁴ Habitats as described in the Natural Environment and Rural Communities (NERC) Act 2006 s.41 and the biodiversity duty s.40 amended by the Environment Act 2021.

⁵ The settlements are using Built up Areas mapping 2022 from the Office of National Statistics.

⁶ Kent Nature Partnership. 2021. State of Nature in Kent 2021.

⁷ Data from Natural England sourced May 2024

⁸ ARCH. 2012. Kent Habitat Survey.

⁹ ARCH. 2012. Kent Habitat Survey. Neutral grassland includes lowland meadow and coastal and floodplain grazing marsh

¹⁰ Natural England. 20202. Climate Change Adaptation Manual (NE751).

¹¹ ARCH. 2012. Kent Habitat Survey. Neutral grassland includes lowland meadow and coastal and floodplain grazing marsh

¹² *Hymenoscyphus fraxineus*, formerly known as *Chalara fraxinea*. Defra. (2013). Chalara Management Plan. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/221051/pb13936-chalara-management-plan-201303.pdf

¹³ Tree Council. 2019. Ash Dieback: An Action Plan Toolkit. <https://treecouncil.org.uk/wp-content/uploads/2019/12/Tree-Council-Ash-Dieback-Toolkit-2.0-2.pdf>

¹⁴ Kent County Council. 2019. Climate Change Risk and Impact Assessment for Kent and Medway, Part 1.

¹⁵ Natural England. 2020. Climate Change Adaptation Manual (NE751).

¹⁶ ARCH. 2012. Kent Habitat Survey. Neutral grassland includes lowland meadow and coastal and floodplain grazing marsh

¹⁷ <https://www.mccip.org.uk/all-uk/uk-impacts/hub/physical-environment>

¹⁸ ARCH. 2012. Kent Habitat Survey. Neutral grassland includes lowland meadow and coastal and floodplain grazing marsh

¹⁹ <https://kentdowns.org.uk/wp-content/uploads/2018/04/PONDS.pdf>

²⁰ Natural England. 20202. Climate Change Adaptation Manual (NE751).