

Swale Biodiversity Action Plan

Revised June 2016



Swale Green Grid Partnership

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Contents

Introduction	3
What is biodiversity?.....	3
Why does biodiversity matter?	3
What is the Swale BAP?.....	3
How does the Swale BAP fit in with County and UK plans?.....	4
The current Swale Biodiversity Action Plan	5
General Biodiversity Conservation	6
Community	8
Orchards	11
Estuary Habitats	12
Woodlands.....	15
Wildflower grassland	18
Farmland	20
Built-up areas and gardens	22

Photographs on front cover
 Main Photo courtesy of R Canis
 Wigeon in flight courtesy of John Whitting

Introduction

What is biodiversity?

Present-day life can, at times, appear to be highly complex yet this is nothing compared to the variety of life in the natural world. It has become a form of shorthand to use the word 'biodiversity' to refer to the full range of animals and plants found in Swale, Kent, the UK and the world as a whole.

Biodiversity can be used to describe not only the easily observed wildlife of every day life – starlings in your garden, the fox crossing from a flowering and grassy roadside verge to an urban garden and the trees bursting into leaf – but also the invertebrates in the soil, mosses, fungi, bacteria and even viruses.

Why does biodiversity matter?

Most people would agree that wild animals and plants are important in their own right and it is also true that biodiversity contributes to our economy, supports our society and improves our quality of life. Natural and managed wildlife habitats can help to stabilise the soil, reduce the risk of flooding, and improve air quality. The natural environment of Swale can support local tourism initiatives and businesses, and provide a setting for regeneration. Not least, the natural environment contributes to our mental and physical health and wellbeing, education and development of community spirit through a shared interest and enjoyment of our natural spaces.

By ignoring biodiversity in Swale, we will risk environmental, economic and spiritual loss. Protecting and enhancing biodiversity will help to ensure that current and future residents have opportunities to maintain and improve their physical and mental wellbeing, and that economic development and regeneration are truly sustainable.

What is the Swale Biodiversity Action Plan?

The Swale BAP is intended to provide a sound basis for local actions working in partnership with environmental agencies to conserve, protect and enhance the biodiversity of the Borough. Conserving and enhancing Swale's natural environment is at the heart of the Local Plan. This means protecting and enhancing valued landscapes, geology and soils and co-ordinated working to secure coherent ecological networks and a reversal in declines in the quality and diversity of the environment. The Local Plan recognises the value of ecosystems for the support they give to communities such as food, water, flood, disease control, recreation and health and well-being. The Swale BAP offers residents and businesses an opportunity to work together to conserve the Borough's wildlife.

Swale's environment is particularly diverse, with a range of semi-natural and man-made habitats which include the sea, coastal mudflats, coastal shingle, soft cliffs, grazing marsh, chalk grassland, scrub, broad-leaved woodland, open freshwater, rivers and streams, arable land, orchards, conifer plantations, parks, gardens, urban areas and post-industrial land. Some of these habitats are recognised as being of national and even international importance, while other areas are recognised as important at county and local level. They support a countless number of wild species, many of which are noted as being rare or threatened in the UK.

How does the Swale BAP fit in with Kent and UK plans?

The Swale BAP forms a positive part of the efforts being made at district, county and national scale to fulfil commitments made by the UK at the landmark **Earth Summit** in Rio de Janeiro in 1992 at which a new form of environmental governance, environmental agreements on climate change and biodiversity were reached. With biological resources vital to the economic and social development of countries across the world, the signing of the **Convention on Biological Diversity** by over 150 countries, including the UK, recognised the need to halt the worldwide loss of animals, plant species and genetic resources.

Following Rio+20 (2012), the UK supported and contributed to the development of the **UN 17 Sustainable Development Goals** and the **2030 Agenda for Sustainable Development** of which there are two objectives particularly relevant for biodiversity:

- Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

The report ***Biodiversity: the UK Action Plan*** (1994) outlined plans to conserve biodiversity in response to the Rio Convention, providing a framework to protect and enhance biological diversity throughout the UK. The four UK countries developed their own country strategies for biodiversity and a shared vision for UK biodiversity conservation ***Conserving Biodiversity – the UK Approach*** (1997). This in turn was succeeded by the ***UK Post - 2010 Biodiversity Framework*** (2012).

The UK List of Priority Species and Habitats (2007) remains an important reference source and had been used to draw up statutory lists of priority habitats at a new country level rather than UK level as required under Section 41 (England) of ***The Natural Environment and Rural Communities (NERC) Act 2006***. The habitats increased from 49 to 65 (www.jncc.defra.gov.uk).

Local authorities have a key role to play in the conservation of biodiversity and this is now recognised and formalised within Section 40 of the ***Natural Environment and Rural Communities (NERC) Act 2006***:

“Every public body must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”

The Kent Nature Partnership, awarded Local Nature Partnership (LNP) status in 2012, seeks to drive positive change in the local natural environment through a three pronged approach setting out a county framework – Habitat Improvement, Health and Wellbeing and Rural and Green Economy. Prepared by the Kent LNP, the ***Kent Biodiversity Strategy – Kent Biodiversity 2020 and beyond – a strategy for the natural environment 2015 -2025*** (<http://www.kentnature.org.uk/biodiversity-strategy.html>) sets out what needs to be achieved in order to safeguard a future for the county’s biodiversity. The Partnership aims to make Kent a place where plants, animals and habitats are protected and enhanced, both for their own sake and as an integral part of the quality of life in the county.

The Swale Biodiversity Action Plan 2016

The first Swale BAP was drawn up in 2001 and was subsequently revised in 2008. The Swale Bap (2016) represents a review of these documents by Swale Green Grid environmental partners and takes account of the Kent Biodiversity Strategy 2015-2025 in particular.

Focusing on conserving and enhancing nationally and locally important biodiversity, and informed by the recent landscape characterisation of the Borough (www.swale.gov.uk/assets/Planning-General/Planning-Policy/Landscape-Character-Appraisal-Final-Sept-2011/Introduction-reduced-size.pdf) this plan aims to conserve, protect and enhance the biodiversity of the Borough of Swale and capture the enthusiasm and support of local people. **The Swale Landscape Character and Biodiversity Appraisal** may be read in conjunction with the following:

Habitats Regulations Assessment (April 2015)

(<http://archive.swale.gov.uk/assets/Planning-General/Planning-Policy/Evidence-Base/Local-Plan-2014/Further-evidence-2015/Habitats-Regulation-Asessment-April-15-web.pdf>)

The Habitats Regulations Assessment Mitigation (April 2015) (<http://archive.swale.gov.uk/assets/Planning-General/Planning-Policy/Evidence-Base/Local-Plan-2014/SBC-EIP-Statements/SBCPS063-Matter-6.2-FINAL.pdf>)

Green Spaces and conserving/enhancing the landscape (April 2015)

(<http://archive.swale.gov.uk/assets/Planning-General/Planning-Policy/Evidence-Base/Local-Plan-2014/SBC-EIP-Statements/SBCPS064-Matter-6.3-FINAL.pdf>)

The actions in the Swale BAP have been arranged into distinct categories. These are:

General Biodiversity Conservation actions not specific to a particular habitat, and largely dealing with land-use planning and other action where the local authority will need to take the lead on delivery.

Community actions directed at supporting and encouraging local communities to take action for wildlife.

Actions specific to particular habitats **priority habitats** for action in Swale and comprise:

- **Orchards** (includes the UK BAP priority habitat *Traditional Orchards*).
- **Estuary habitats** (includes the UK BAP priority habitats *Coastal Saltmarsh, Intertidal Mudflats, Seagrass Beds, Coastal and Floodplain Grazing Marsh and Saline Lagoons*).
- **Woodlands** (includes the UK BAP priority habitats *Lowland Mixed Deciduous Woodland and Wood-Pasture and Parkland*).
- Wild flower grassland (includes the UK BAP priority habitats *Lowland Calcareous Grassland, Lowland Meadows and Lowland Dry Acid Grassland*).
- **Farmland** (includes the UK BAP priority habitat *Arable Field Margins*).
- **Built-up areas** and gardens (includes the UK BAP priority habitat *Open Mosaic Habitats on Previously Developed Land*).

General Biodiversity Conservation

Background

The planning system has an increasingly important role in the conservation of wildlife. The National Planning Policy Framework (NPPF) and other policy documents emphasise the need to protect important sites, plan for green infrastructure and plan for ecological networks at 'landscape scales' taking account the anticipated effects of climate change. National policy reflects the commitment to 'halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020'.

The NPPF is clear that pursuing sustainable development includes **moving from a net loss of biodiversity to achieving net gains for nature**, and that a core principle for planning is that it should contribute to conserving and enhancing the natural environment and reducing pollution. It states further in terms of its environmental role as contributing to protecting and enhancing our natural, built and historic environment, **and as part this, helping to improve biodiversity**, use natural resources prudently, minimize waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.

There is a clear role for a wide range of partners to seek to ensure that planning in, and affecting, Swale brings the kind of benefits to wildlife envisaged in Government planning policy. It is the local authority, however, which will take the lead in setting local planning direction and policy through the Local Plan.

Under the Natural Environment and Rural Communities Act (2006), local authorities have a duty to have regard, in the exercise of their functions, to the conservation of biodiversity. Good practice guidance issued by Defra (***Guidance for Local Authorities on Implementing the Biodiversity Duty***, 2007) states:

- Biodiversity conservation involves taking opportunities to enhance biodiversity, as well as protect it.
- Local authorities should play the leading role in establishing systems to conserve and enhance Local Wildlife Sites and to give proper consideration to biodiversity outside designated areas.
- Management of local authority sites is important both in providing habitats for wildlife and in reducing environmental impacts that affect biodiversity.
- Biodiversity conservation measures need to have regard both to designated sites and priority species, and to wider species and habitats.
- A wide variety of sites are important in this respect including designated sites and nature reserves, green infrastructure, buildings, school grounds, wetland and coastal sites, highways and rights of way, farms and tenanted land.

Through the Local Plan there is a commitment to an urban Green Infrastructure Strategy. The strategy seeks to promote the expansion of Swale's natural assets and green infrastructure, including within new and existing developments, by:

- Delivering a high standard of design quality to maximise the social, economic, health and environmental benefits of green infrastructure
- Providing a focus for social inclusion, community development and lifelong learning

- Taking into account the guidelines and recommendations of relevant management plans and guidance, Biodiversity Action Plans and Supplementary Planning Documents
- Contributing to the protection, conservation and management of historic landscapes, archaeological and built heritage assets
- Achieving where possible, a net gain of biodiversity
- Providing new recreation facilities, exploiting opportunities to link urban and countryside areas and to create new footpath and cycle links

By maintaining its involvement in the Swale BAP, and working to take forward the actions set out below and throughout the rest of this document, Swale Borough Council and its partners will be able to demonstrate their commitment to wildlife in compliance with its duty to have regard to biodiversity conservation.

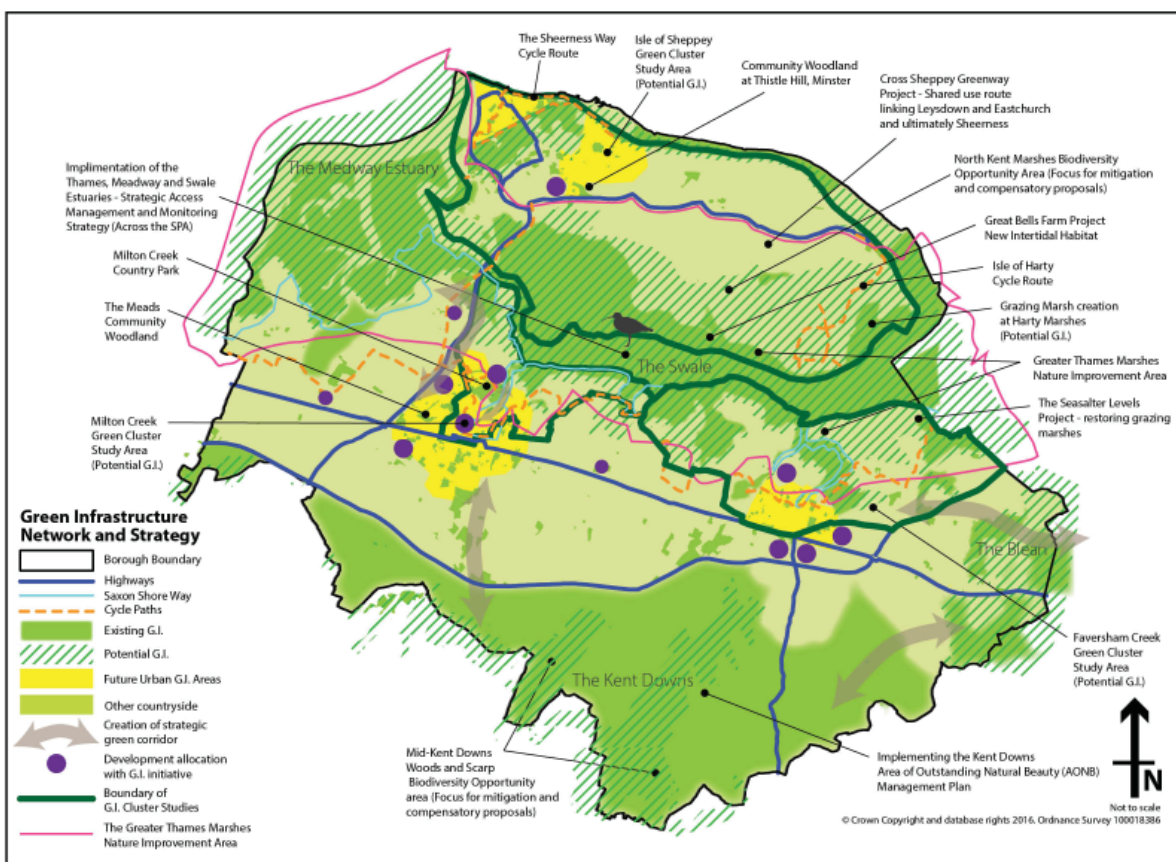


Figure 1. Natural Assets and Green Infrastructure Network

General actions

- 1) The emerging Swale Local Plan, Bearing Fruits 2031 will include policies to protect BAP habitats. The Local Plan will also guide approaches and create more robust ecological and landscape structures including a natural assets and green infrastructure strategy culminating in the creation of a major new green infrastructure initiative within the A249 corridor, connecting both Sittingbourne and Iwade, together with other green links through to Kemsley and Milton Creek. At Faversham, new space at Oare will be established whilst habitat creation to compensate for development and/or climate change will take place on Sheppey.

- 2) As far as possible, all sites supporting habitat of county importance will be designated as Local Wildlife Sites (LWSs). The Kent Nature Partnership oversees the selection of LWSs in this county, using robust, scientifically-determined criteria and local knowledge and understanding of this area's natural environment. The Partnership is made up of a great variety of stakeholders including local authorities, public bodies, nature conservation NGOs and groups representing landowners and farmers.
- 3) The importance of 'brownfield' sites for wildlife will be taken into account in planning policies and decisions ensuring that development proposals for brownfield sites give consideration to conservation of wildlife. **The State of Brownfields in the Thames Gateway** (2012) quantified the ecological importance of brownfield land for biodiversity at a landscape scale. (www.buglife.org.uk).
- 4) The provision of support and advice by Kent Wildlife Trust (KWT) to site owners and/or managers, including local authority owned green spaces, will ensure that there is a net increase in the number of Local Wildlife Sites in positive conservation management.
- 5) There will be an inventory of council-owned sites prepared by KWT supporting semi-natural habitats, together with a programme for the preparation and delivery of site management plans for each site: priority will be given to
 - i) sites designated as Local Wildlife Sites and
 - ii) sites within target landscape units (see Figures 4 and 5).

Community

Background

Local residents often want to be involved in the protection and enhancement of their local environment, individually or through a local community group, parish council or countryside group. This not only provides a way to achieve important benefits for wildlife, but also can help people stay fit and healthy, and provide a way to strengthen local communities.

Parish plans are being developed by many parish councils, and these often indicate the importance that many village residents attach to the environment. Parish councils have a duty to have regard to conserving biodiversity, because they are 'public authorities' in the meaning of the Natural Environment and Rural Communities Act 2006. Support for local environmental activities is one way in which they can show that they are complying with this duty.

Action by local communities may be particularly important for wildlife habitats which occur in numerous small patches. In particular, ponds and traditional orchards occur in small, scattered blocks across the Borough, and can provide ideal projects to enrich local life – as well as being very important for wildlife. Almost every parish in Swale has at least one traditional orchard, and every parish has a number of ponds – even if some are garden ponds. There is huge potential, therefore, for people to take part in census and management of these important habitats.

Community orchards offer a way of saving vulnerable old orchards and species and opportunities to plant new ones. They provide places for quiet contemplation or

local festivities, a reservoir of local varieties of fruit and a refuge for wildlife. They may be in private ownership, owned or leased for or by the community (or held by agreement) by a community group, parish council, or by a local authority or voluntary body. As well as enjoying the place, local people may share the harvest or profit from its sale, with the opportunity of taking responsibility for work in the orchard.

Trends

Old orchards are characterised by well-established fruit (apple, pear, cherry, damson and cobnut) on vigorous rootstocks and at traditional standard spacing, with a grass sward usually either grazed by livestock or cut for hay. The most important sites for wildlife are the older, traditional standard orchards, as these tend to be extensively managed and contain mature trees of a variety of species. Most remaining old orchards, however, are no longer commercially managed owing to their declining yield, consumer demand for new varieties, and health and safety issues regarding the use of ladders. However, there is a growing interest in community orchards as a way of saving vulnerable old orchards and planting new ones, and this is dealt with in more detail under 'Orchards', below. Swale has the highest concentration on non-intensive orchards of any Kent district: though only occupying 10% of the county's land surface, Swale has a third (458ha) of non-intensive orchards in Kent.

Pond Conservation (www.freshwaterhabitats.org.uk) notes that, although ponds are still common almost everywhere in Britain, the number of ponds has dropped by around 500,000 in the last 100 years. To be considered a priority habitat, the pond must be of high conservation or ecological importance, be home to species, plants or animals or have other attributes such as being rare, old or part of a special landscape. Around 20% of the UK's 400,000 ponds (not including those in gardens) might meet one or more these criteria but many that remain are badly affected by pollution. In fact recent research shows 80% of wildlife ponds in the UK are in a 'poor' or 'very poor' state. The effects of this loss on wildlife are devastating, as freshwater ponds provide many species with valuable breeding and feeding habitat. Ponds have and continue to be lost to urban development and landscape change, agricultural drainage and in-filling, fragmentation and through poor management.

There is an increasing trend for community involvement in local nature conservation projects, with large numbers of people volunteering to conserve local wildlife sites and nature reserves, planting hedges and trees including community orchards, working to improve school grounds and churchyards, or supporting the work of conservation organisations.

Action with parishes and local communities

- 1) The Swale Green Grid Partnership will signpost relevant environment organisation(s) to support work with local communities on Parish Environment Plans, and, in particular:
 - a) To support work to conserve and enhance ponds (particularly where these are identified as important ponds under the criteria in the National Ponds Habitat Action Plan (http://jncc.defra.gov.uk/pdf/UKBAP_BAPHabitats-42-Ponds.pdf) or where there are networks of ponds supporting great crested newt).
 - b) To maintain, enhance and extend traditional or non-intensively managed orchards, in particular where this will help meet targets in the Kent, Regional or National Biodiversity Action Plans.

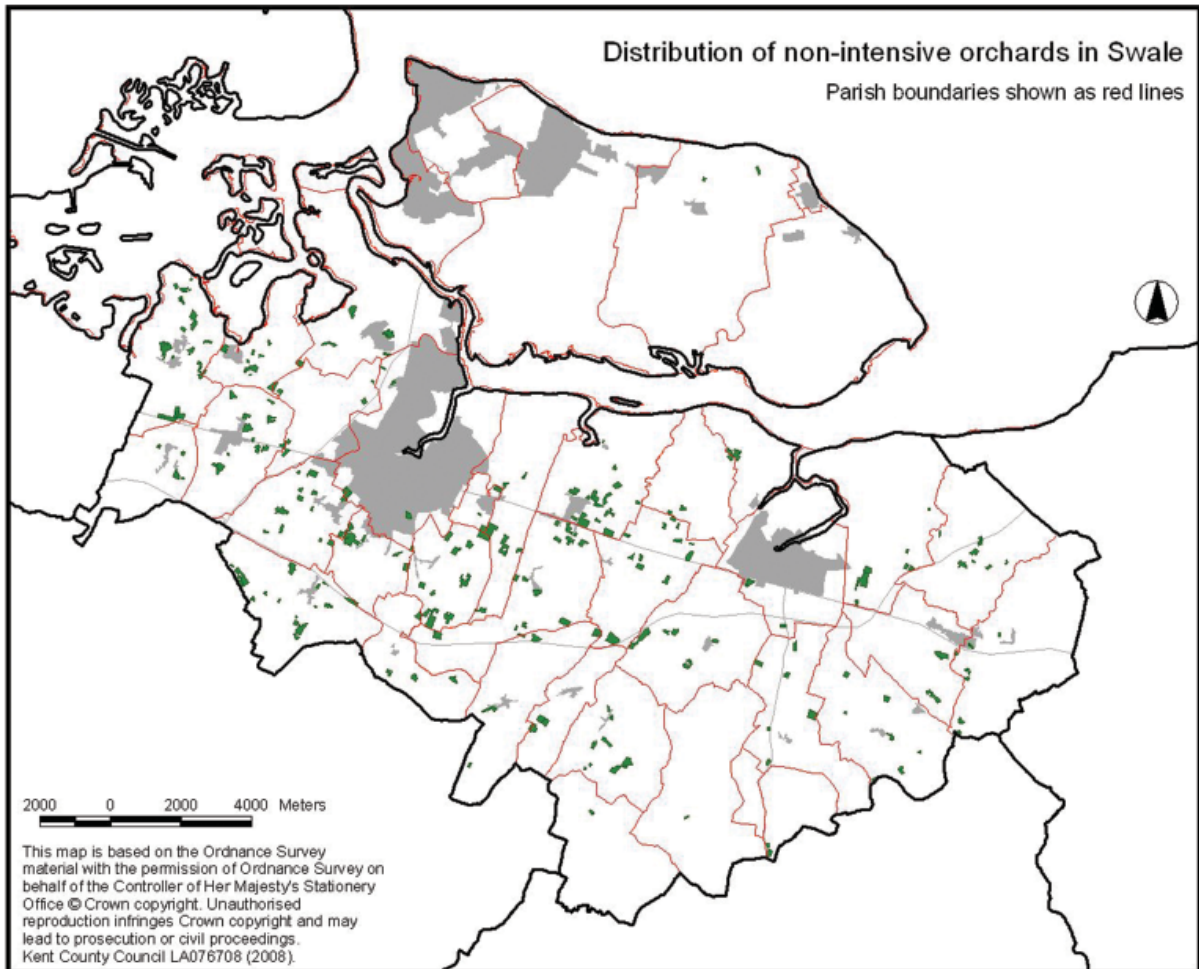


Figure 2. Distribution of non-intensive orchards in Swale

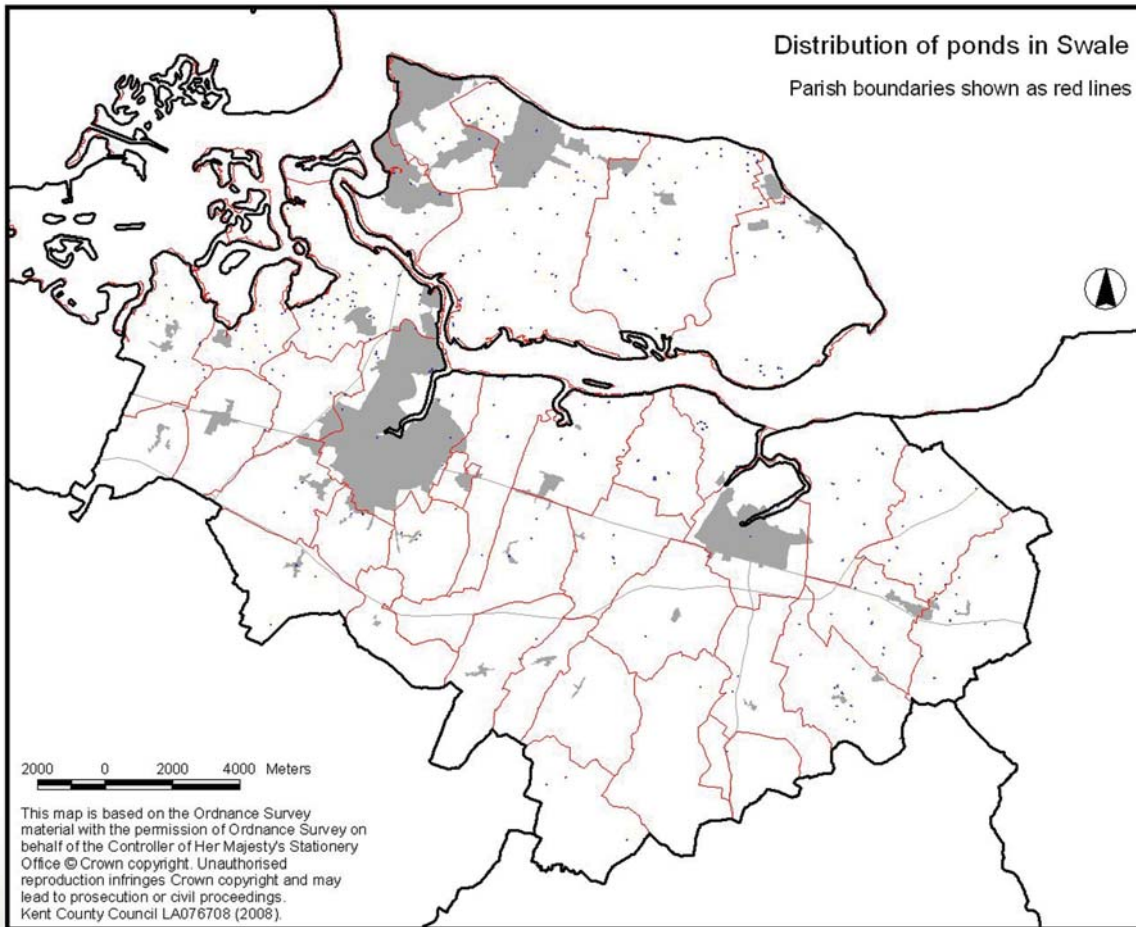


Figure 3. Distribution of ponds in Swale

Orchards

Background

Traditional orchards have long been valued for their importance to wildlife. However, it is only very recently that their importance has been formally recognised with their inclusion as a priority habitat in the UK Biodiversity Action Plan. Traditional Orchards are defined as orchards over 40 years of age which are characterised by well established fruit (apple, pear, cherry and plum) or cobnut on vigorous rootstocks and at traditional standard spacing (apple, cherry and plum must have less than 150 tree stations to the hectare), with a grass sward usually grazed by livestock or cut for hay.

The suitability of the soil in much of Swale, with its rich brick earth, combined with excellent and expanding transport links, sustained a vibrant and thriving commercial industry until the mid 1960s. In Swale the majority of remaining traditional old orchards are now cherries with a selection of varieties; traditional apple, pear and plum orchards have for the most part been grubbed to make way for modern, commercially productive orchards.

The most important sites for wildlife are the older, traditional orchards with standard-sized trees, as these tend to be less intensively managed and to contain mature trees which are most likely to support a wider range of species, including those

associated with dead wood. The noble chafer, a nationally rare beetle previously thought extinct in Kent has recently been discovered in a traditional plum orchard in Iwade, and has highlighted the importance of Swale's orchards in a county context. Swale has as many as 274 old traditional orchards, covering an area of 458ha, the highest concentration in any Kent district (see Figure 2). Though occupying only 10% of Kent's land surface, Swale is covered by 30% of all Kent's non-intensive orchards.

Trends

Since the middle of the 20th Century, changes to the economics of farming, and the availability of semi-dwarfing rootstocks (which reduce the height of mature trees, making the fruit easier to pick), have led to a decline in the acreage of fruit, and loss of traditional orchards. Swale has retained its fruit growing industry, but it is the smaller growing rootstocks that have prevailed.

There is a growing interest in community orchards as a way of saving vulnerable old orchards and planting new ones. These can provide places for quiet contemplation or local festivities, a reservoir of local varieties of fruit and a refuge for wildlife. Local people may share the harvest or profit from its sale, with the opportunity of taking responsibility for work in the orchard. Such projects are already running at Lynsted, Iwade, Sheldwich, Belmont and Milstead.

Action for traditional orchards

- 1) The Swale Local Plan will include policies to protect BAP habitats with support being given to the most valuable traditional orchard habitats.
- 2) Projects for the maintenance, restoration and creation of traditionally managed orchards will be supported by the most relevant environment partner where they form part of wider projects for the restoration of wildlife habitats at a landscape scale.

Estuary Habitats



Photograph courtesy of John Whitting

Background

The character of Swale is strongly influenced by the Borough's estuary habitats. Much of the land in and around Swale's coast consists of UK BAP priority habitats, including

- Intertidal mudflats in the Swale and the Medway Estuary, and to the north of Sheppey.
- Saltmarsh in the Swale and the Medway Estuary.
- Coastal grazing marsh, particularly along the Swale, but also in the Medway Estuary to the west of the Borough.
- Seagrass beds on the mudflats in the Swale.
- Saline lagoons, in the form of the defensive canals at Queenborough Lines and the boating lake at Barton's Point Country Park.

Mudflats, saltmarsh, grazing marsh and seagrass beds are treated as separate habitats in the UK BAP, and it is the case that certain species rely more on one sort of habitat than another: for example

- Mudflats, intertidal saltmarsh and seagrass beds are important nursery habitats for sea fish.
- Grazing marsh is an important habitat for water voles (a very rapidly declining species for which Sheppey remains a very important refuge) as well as for many insect species associated with wet ditches.
- Saline lagoons support a number of species tolerant of brackish conditions, but unable to survive in fresh or fully saline water, including the tasselweeds (*Ruppia* spp.) and the lagoon cockle.

It is the combination of estuary habitats which is important for supporting much estuary wildlife, especially the populations of wild birds for which the Swale and the Medway Estuary are internationally important. The many thousands of ducks, geese and wading birds which visit the Medway and Swale in the winter, or pass through on migration, make use of different parts of the estuary – and different types of habitat – to feed or to rest in safety.

Because of the vital importance of Swale's estuary habitats to the conservation of wildlife on a European scale, almost the entire area has been designated as a Special Protection Area (SPA) under European law. They are also designated as Sites of Special Scientific Interest (SSSI) under UK law, in recognition not just of their importance for birds, but also their national importance for the conservation of saltmarsh and grazing marsh plant communities.

Trends

Historically, estuary habitats have been subject to huge pressures from land reclamation, agricultural improvement and industrial development, all of which have led to substantial habitat loss. Land reclamation has significantly slowed and the Environmental Impact Assessment Regulations 2006 (www.legislation.gov.uk) have made it considerably more difficult to convert grazing marsh to arable farming (a significant cause of past loss of this habitat).

Nonetheless, estuary habitats continue to be threatened. Sea-level rise, particularly at the rate expected under future climate change, is leading to 'coastal squeeze' whereby intertidal habitats are losing space between the increasingly high low-water marks and fixed coastal defences. The Thames Estuary 2100 project (www.environment-agency.gov.uk/te2100), looking at future coastal defence needs, is investigating how existing coastal defences can be set back in order to provide space for intertidal habitats as sea levels continue to rise. This is not only important for wildlife, but will also reduce future flood defence costs: intertidal habitats play

an important role in reducing the energy of waves as they move inshore, so that sea defences are easier to build and maintain, and are less likely to be overtopped during storms.

Perhaps surprisingly, given the known importance of habitats such as grazing marsh, estuary habitats continue to be affected by development pressure. Impacts can be direct, through development of the habitats themselves, or indirect, through increased need for hard sea defences, increased pollution (for example, as a result of effluent discharge, which is known to affect seagrass beds), or alteration of the complex dynamics of the currents and sediments which maintain the character and wildlife of Swale's coast.

Pressure from amenity use is continuing to increase, particularly from recreational use of boats and personal water craft (e.g. jet-skis), and potentially even from walkers using the coast and sea-walls where access routes run close to important bird roosting or feeding areas. Disturbance to breeding birds and to wintering or migrating birds can make a critical difference to population survival, and will require careful management if there is not to be significant conflict between people's enjoyment of the coast and its wildlife interest.

These pressures need to be managed and work with North Kent districts to ensure that indirect impacts upon estuarine habitats can be compensated through habitat creation/management and /or the implementation of the Strategic Access Management and Monitoring Strategy, 2014 (SAMMS) that will enable developer contributions to be levied to implement it.

Action for estuary habitats

- 1) The Swale Local Plan will include policies to protect BAP habitats. There will be a presumption against any development encroaching upon estuary or intertidal habitats, including grazing marsh, saltmarsh and mudflats. Any unavoidable losses to development will be compensated by appropriate habitat creation within the target areas identified in Figure 4. The SAMMS will be used to support the determination of planning applications and inform any Local Plan review and the Council's Community Infrastructure Levy'.
- 2) Opportunities will be sought by the Medway Swale Estuary Partnership (MSEP) and realised coastal and wetland habitats in the target areas shown in Figure 3. This should include:
 - a) Managed retreat of flood defences in order to create new saltmarsh and mudflats, including where opportunities are presented by new developments next to estuaries and the coast.
 - b) Protecting, enhancing and extending habitats within or next to Milton, Conyer, Oare and Faversham Creeks, including securing the positive management of Local Wildlife Sites.
- 3) Work with Natural England to ensure widespread consultation on National Coastal Path strategy and its relationship to Swale; gain a better understanding of impact on fixed route including increased footfall and challenges to habitats in proximity.

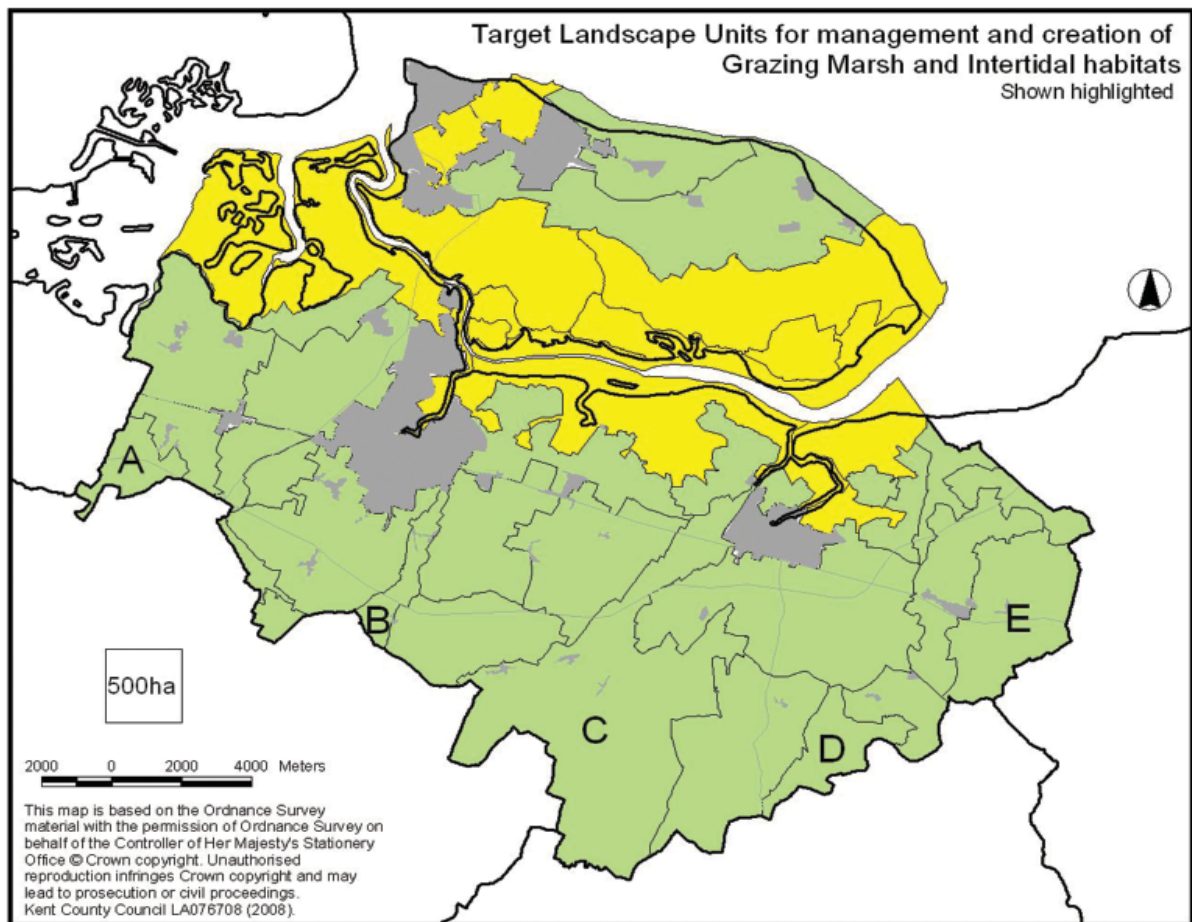


Figure 4. Target areas for grazing marsh and intertidal habitats

Woodlands



Background

Swale is not a heavily wooded Borough, with woodland and scrub covering only around 6% of the Borough compared with 13% for Kent as a whole. In Swale, most woodland is in the south of the Borough, on the dip slope of the North Downs, and in the east of the Borough, where it occurs on the sand and gravel geology at the western edge of the Blean.

Most of the woodland in Swale is ancient woodland that is known to have been wooded since at least the year 1600, and is much richer in wildlife than more recent woodland. Ancient woodland is well known for its rich flora, which, in Swale, includes plants such as wood anemone, herb paris and early purple orchid, and is also important for woodland invertebrates.

Although most of the Borough's woodland is ancient, this does not mean that it has not been modified by human activity. Historically, most has been managed as coppice, with a timber crop being taken every five to twenty years, and this has influenced both the physical structure of the woodland, and the species which can be supported. In places, the original woodland cover has been replaced by plantations of broad-leaved or coniferous trees.

Woodland in Swale supports a number of species identified in the UK BAP as priorities for action, including dormouse, Bechstein's bat, tree pipit (which occurs in recently coppiced woodland), lesser spotted woodpecker, hawfinch (now a very rare bird in Kent), great crested newt, lesser butterfly orchid and fly orchid. Other species of note include nightingale, a species for which Kent is particularly important, and common buzzard, a bird which has recently re-colonised Kent after an absence of many decades.

Significant areas of Swale's woodland are of county or national importance. Part of the Church Wood, Blean Site of Special Scientific Interest (SSSI) lies within Swale, and is close to woodland blocks of county importance (designated as Local Wildlife Sites) at South Blean, Blean Woods (West) and Perry Wood. An important complex of smaller woodland Local Wildlife Sites on the dip slope of the North Downs includes Endings Wood, Putt Wood, Oakenpole Wood, Divan Wood, and woodland on the Belmont Estate.

Trends

In Kent, woodland cover has increased over the last hundred years, largely as a result of new plantation and abandonment of land (for example, where reduction in grazing has led to scrub development on chalk grassland and heathland). Ancient woodland, though generally protected from development or loss to agriculture, has continued to decline slowly, for example, as a result of road building. Many woodlands remain small and isolated and, therefore, may be vulnerable to extreme weather events associated with climate change, such as storms and high winds.

Traditional woodland management is normally coppicing. Such management has declined drastically, with associated loss of species associated with open woodland habitats, such as woodland butterflies, but perhaps with some benefits for species associated with less disturbed woodland habitats. The lack of dead wood and absence of large, ancient trees in coppiced woodlands, for example, can mean that it is poor for fungi and wood-boring insects such as beetles.

The increased emphasis on wood as a sustainable biofuel may make coppice management more economically viable in future, with benefits for those species associated with this kind of habitat. Care will be needed, however, to ensure that the continuing presence of decaying timber as a niche for invertebrates and lower order plants is well recognised, and that secondary woodland habitat features, such as streams, ponds and glades are also maintained and enhanced.

Action for woodlands

- 1) The Swale Local Plan will include policies to protect BAP habitats and other ancient woodland. Support will be given to the identification as Local Wildlife Sites of all woodlands meeting the appropriate criteria.
- 2) Opportunities by the most appropriate environmental organisation will be sought and realised for enhancing, extending and connecting woodlands in target areas B-E shown in Figure 5. This should include:
 - a) Securing the positive management of Local Wildlife Sites.
 - b) Identifying and taking forward potential landscape-scale habitat restoration projects.
 - c) Encouraging and, where appropriate, undertaking the removal of non-native species from ancient woodlands.

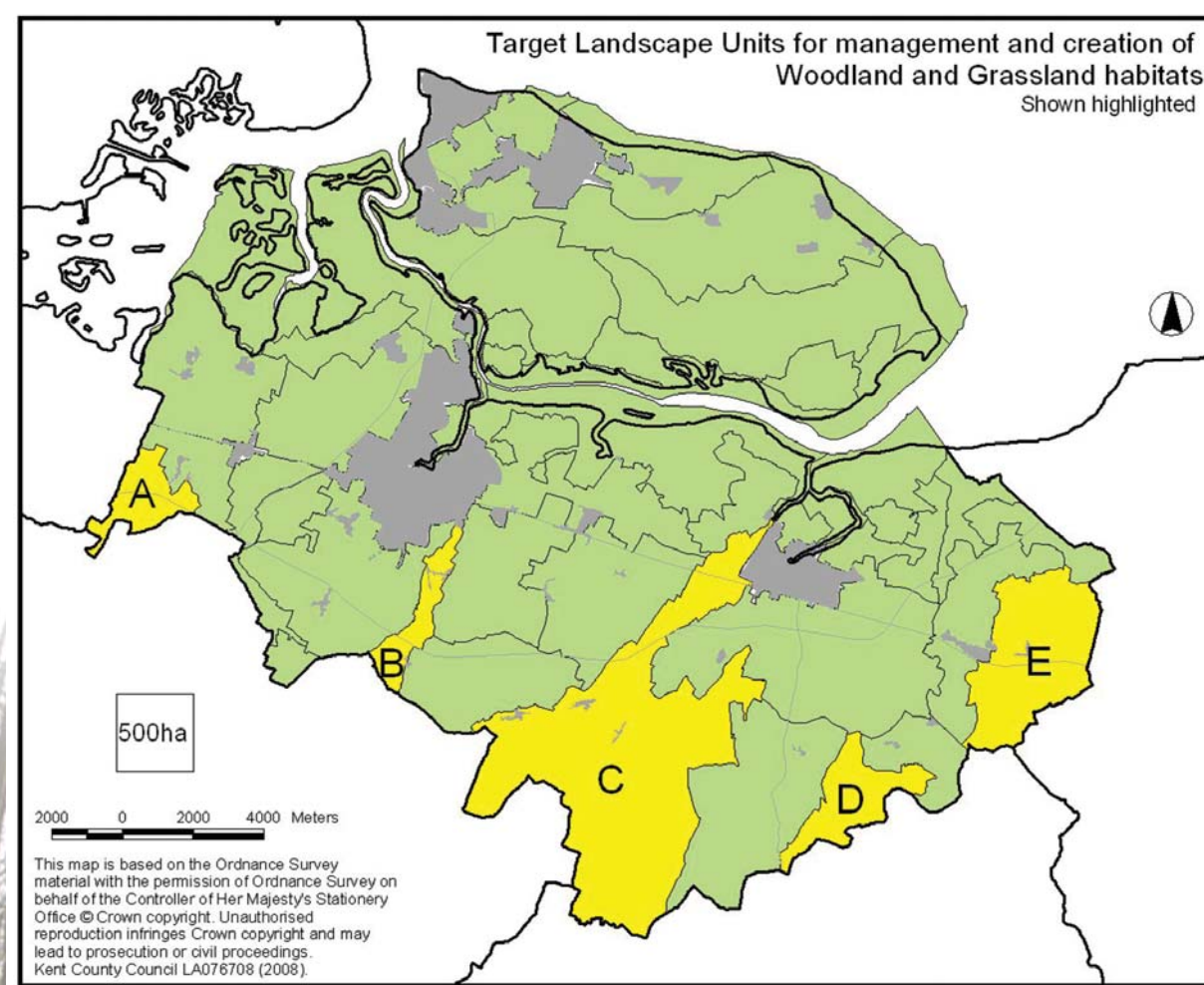


Figure 5. Target areas for woodland and grassland habitats

Wildflower grassland



Background

Flower filled meadows and open areas of grassland peppered with flowers make this a habitat with great appeal to people. Traditionally managed, flower-rich grassland is now a very rare habitat in Swale as in the rest of Kent, and, indeed, the UK. As a result, many wild species associated with grassland are under significant threat.

Swale does have large areas of coastal grassland, most of which is important as coastal grazing marsh. These are important for breeding and wintering birds but often dominated by grasses and not rich in wildflowers. The remaining flower-rich grassland in Swale is largely restricted to a few patches of chalk grassland in the south of the Borough.

The most significant area is Queendown Warren, near Hartlip, which is of international importance and recognised as a Special Area of Conservation under European law, both for its chalk grassland habitat and its important populations of wild orchids. Other areas of chalk grassland are scattered across valley sides in the southern part of the Borough, and more can be found on road verges, a number of which are designated as Roadside Nature Reserves for this reason.

Other small areas of flower-rich grassland do occur, but are small and scattered: examples include the chalk grassland which has developed on the floor of Highsted Quarries Local Wildlife Site and the tiny area of neutral grassland at Doddington Churchyard (churchyards, having escaped agricultural change, can support relict areas of high quality grassland).

Wildflower grasslands can support populations of wild orchids, including, in Swale, common spotted orchid, early spider orchid, fragrant orchid, man orchid (a UK BAP priority species) and pyramidal orchid. Other important species associated with species-rich grassland include birds such as skylark and yellowhammer (both UK BAP priority species), and a large number of butterflies, moths, and other insects such as glow-worms. The decline of many of these species is associated with loss of flower-rich grassland and the increased intensity of management of agricultural

grassland. Loss of insects has led to loss of the species that depend on them, and the rapid decline of some, once-common bat species is almost certainly due to loss of beetles and moths associated with traditionally managed grassland.

Trends

The substantial long-term loss of wildflower grasslands has been associated with agricultural change. Flower-rich grassland is often unproductive compared with agricultural grasslands, so that traditional grasslands have been converted either to arable, improved with fertilizers or by reseeded with agricultural grasses, or, as in the case of much chalk grassland, abandoned altogether.

Remaining areas of wildflower grassland are now small and fragmented, so that the species they support exist in isolated populations which are vulnerable to climate change impacts. There is increased emphasis, therefore, on creating larger habitat blocks, and creating better links across the landscape. There is a role for the creation of wildflower grasslands as part of new built developments, where they can be incorporated as attractive elements of open spaces and verges, or even as green roofs or walls.

Action for wildflower grassland

- 1) Within target area A shown in Figure 5, projects for the maintenance, restoration or recreation of species-rich chalk grassland will be supported by the most appropriate environmental organisation in partnership with the community'.
- 2) Within other target areas shown in Figure 5, projects for the maintenance, restoration or recreation of species-rich grassland will be supported where they form part of wider projects for the restoration and reconnection of wildlife habitats at a landscape scale.
- 3) Plans and proposals for landscaping and other green infrastructure associated with development and regeneration will include flower-rich grassland as a major element, particularly where there is potential to support populations of rare bumblebees.

Farmland



Background

Although so much emphasis is placed upon built development and its impact, it is farming which has had, and continues to have, the greatest influence on the environment. It provides the backdrop and setting for built development and has created the landscape within which other wildlife habitats sit. The future of Swale as a whole, and the quality of life of its residents, is significantly linked with the actions of landowners, farmers, and landscape managers.

A number of UK BAP priority species are associated particularly with farmland, including brown hare (which occurs in arable land on the Downs as well as on coastal grazing marsh) and a suite of birds including corn bunting, grey partridge, lapwing, skylark, tree sparrow, turtle dove, yellow wagtail and yellow hammer. Many previously widespread species (such as some of the bumblebee species now included in the UK BAP) would have originally been associated with farmland. In recognition of this, agri-environment grant schemes, such as the Entry Level Environmental Stewardship Scheme (<https://www.gov.uk/guidance/environmental-stewardship>), aim to encourage action for these species.

Impacts of farming upon wildlife have been both positive and negative: for example, in the past, much grazing marsh has been converted to arable land. It is still the case, however, that most remaining grazing marsh is in private ownership and actively farmed, including the majority of the area within the Swale SSSI.

Increasingly, the importance of the wider environment to quality of life – and to economic and social development is being recognised. Emphasis is being put on so-called ‘ecosystem services’, that is, the benefits which society gets from the environment, such as amelioration of climate, reduction of food risk, recreation and amenity, and both mental and physical well-being. The farmed environment has a huge role in delivering these services, and its health and good management is of great significance to everyone.

It is also the case that wildlife-friendly farmland can act to buffer and connect areas of wildlife habitat, and, as such, has a critical role in any proposals to link and extend habitats in order to create large habitat blocks.

Trends

Pressures on farmland and on farmers continue to change rapidly. At the time of writing (2016), land prices are rising because of increases in wheat prices, and there is a likelihood that any increase in the demand for biofuels will increase prices further. 'Countryside Stewardship (CS) provides financial incentives for land managers to look after their environment through activities such as:

- conserving and restoring wildlife habitats
- food risk management
- woodland creation and management
- reducing widespread water pollution from agriculture
- keeping the character of the countryside
- preserving features important to the history of the rural landscape
- encouraging educational access

(<https://www.gov.uk/government/collections/countryside-stewardship-get-paid-for-environmental-land-management>)

Built development also has an impact on farming, and farming close to extensive areas of built development can be a difficult task, leading to economic losses for farmers and resulting in a loss of quality in the urban fringe environment.

Action for farmland

- 1) Within or adjacent to the target areas shown in Figures 4 and 5, farmers and other land-owners will be encouraged by the Swale Green Grid Partnership to undertake action to improve farmland habitats in order to protect and enhance farmland biodiversity, particularly where:
 - a) This would result in the maintenance, enhancement, restoration or recreation of BAP Priority Habitats.
 - b) Nectar and grass strips, which would favour bumblebees and other pollinating insects, can be created within or adjacent to the target areas shown in Figure 4.
 - c) This would help support existing populations of important farmland birds, including tree sparrow, corn bunting, grey partridge, turtle dove, yellow wagtail and lapwing, particularly within target areas identified by RSPB.
 - d) It would support the delivery of a landscape-scale habitat restoration project.

Built-up areas and gardens



Background

The variety of habitats found in built-up areas and gardens, which is taken here to include previously developed land – so-called ‘brownfield’ sites – not only contributes to biodiversity but also provide opportunities for people to have close contact with wildlife.

The huge variety of sites includes urban and rural settlements, school grounds, hospital and care homes, caravan parks, farm buildings, industrial estates, retail parks, waste and derelict land, urban parkland, transport infrastructure, domestic gardens, allotments, churchyards and cemeteries. Heritage sites may also be included in this category.

Careful management of built-up areas and gardens can provide good wildlife habitats and for many people their main or only contact with the natural environment. It is also the case that some brownfield sites have developed substantial wildlife interest in the absence of management. **The State of Brownfields in the Thames Gateway** (2012) found that 198 sites (over 40%) showed High or Medium potential for invertebrate biodiversity. (www.buglife.org.uk).

The importance of sites of this nature has led to several being designated as Local Wildlife Sites, including Bysing Wood and Oare Gravel Pits, Conyer Pits, and Doddington Churchyard. Other areas, such as Murston Pits and the former Elmley Village and Cement Works are now part of larger Sites of Special Scientific Interest. Built-up areas and gardens provide suitable habitats for a number of UK BAP priority species, including hedgehog, pipistrelle bat, song thrush, spotted flycatcher, common toad and stag beetle. Other species may have a strong association with buildings where structures often mimic their favoured natural habitats, for example bats, house martins and swifts, and even lichens (for which churchyards can be especially important). Brownfield sites can be particularly important for rare insects, including, in Swale, the very rare shrill carder bumblebee.

Trends

In contrast to many other habitats, built-up areas and gardens are increasing in extent, though pressure for building on brownfield sites may threaten some of the most important areas. There are also suggestions that the quality of the built environment (from the point of view of wildlife) may be decreasing: for example, declines in urban sparrow populations may be linked to loss of cover in gardens, which may in turn be driven by the need to provide off-road parking; and improved building regulations are making it harder for bats, as well as swifts and other birds, to gain access to cavities in buildings.

Action for built areas and gardens

- 1) The Swale Local Plan will include policies for the identification and delivery of green infrastructure, and will identify how new development will be expected to contribute to this.
- 2) The positive conservation management of roadside nature reserves will be encouraged by the most appropriate environmental organisation working in partnership with the community.
- 3) Swale in Bloom to continue to work with The Kent Wildlife Trust to promote wildlife gardening in Swale. In particular, the Wild About Gardens Awards (www.kentwildlifetrust.org) will continue to be supported with local partners such as Amicus Horizon.
- 4) Swale Borough Council and its partners will sign up to Britain in Bloom (<https://www.rhs.org.uk/communities/campaigns/britain-in-bloom/about-rhs-britain-in-bloom>) RHS Britain in Bloom. Swale in Bloom will encourage and support local 'In Bloom' and other gardening and environmental groups by helping them raise funds, improve their skills and plant knowledge and organise and take part in garden competitions including entries to South East in Bloom and Britain in Bloom
- 5) The In-Bloom Co-ordinator works with local delivery partners (schools, community groups, town and parish councils) to support the Centenary '100 in 100' planting scheme – the planting of 100 new poppy areas in Swale to coincide with centenary commemorations.
- 6) The In-Bloom Co-ordinator will work with local delivery partners (schools, community groups, town and parish councils) to add bird boxes to appropriate buildings

Contacting Swale Green Grid Partnership

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