



Revised June 2008

Swale Biodiversity Action Plan 2008



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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 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 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, education and development of community spirit.

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 well-being, and that economic development and regeneration are truly sustainable.

What is the Swale BAP?

The Swale Biodiversity Action Plan (Swale BAP) is intended to provide a sound basis for local action to conserve, protect and enhance the biodiversity of the Borough. It was prepared by Swale Countryside Working Group offers Swale residents and businesses – and other organisations – 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 level. They support a countless number of wild species, many of which are noted as being rare or threatened in the UK: the first Swale BAP in 2001 listed more than 130 such species.

How does the Swale BAP fit in with County 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 Earth Summit in Rio de Janeiro in 1992. The signing of the Convention on Biological Diversity by over 150 countries, including Britain, recognized the need to halt the worldwide loss of animals, plant species and genetic resources.

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 UK List of Priority Species and Habitats* (2007) (<http://www.ukbap-reporting.org.uk/outcomes/targets.asp?C=3&X=&P=1&F=unde>) sets out the priorities for conservation action under the UK Biodiversity Action Plan (BAP). This is a separate form of conservation to the protection of biodiversity offered by statutory legislation.

Developing this into a county framework resulted in the *Kent Biodiversity Action Plan* (www.kentbap.org.uk) which seeks to be proactive in setting out what needs to be achieved in order to safeguard a future for the county's biodiversity. The Kent BAP currently includes twenty-eight Habitat Action Plans setting out the actions required to conserve, enhance and restore the condition and/or extent of each priority habitat. The Kent BAP was prepared by the Kent Biodiversity Partnership: a network of organisations, each with a common focus for biodiversity conservation in Kent. 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 current Swale Biodiversity Action Plan

The Swale Countryside Working Group drew up the first Swale BAP in 2001. The current Swale BAP represents the first review of this document, and is based on priorities drawn up by the Swale Countryside Working Group, taking into account targets set out in the updated Kent and UK BAPs. The outcome is this report, which aims to be more specific than the original plan but continues to take into account and emphasise the unique mix of habitats in Swale.

Focusing on conserving and enhancing nationally and locally important biodiversity, and informed by the recent landscape characterisation of the Borough (www.swale.gov.uk/media/adobepdf/8/i/Swale_Landscape_Assessment_Guidelines_March_05_reduced_size_amended_dec05.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 actions in the current 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 that were identified by Swale Countryside Working Group, 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*).
- **Wildflower 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*).

Swale Countryside Working Group

This is a local community-based group which originally arose from Local Agenda 21. The voluntary group includes local residents, wildlife and conservation groups, countryside access groups, professional ecologists, countryside management initiatives and Swale Borough Council.

General Biodiversity Conservation

Background

The planning system has an increasingly important role in the conservation of wildlife. In Planning Policy Statement 9, the Government states that its objectives for planning include

- Ensuring that biological and geological diversity are conserved and enhanced as an integral part of social, environmental and economic development; and
- Conserving, enhancing and restoring the diversity of England's wildlife by sustaining, and where possible improving, the quality and extent of natural habitats, the natural physical processes on which they depend; and the populations of naturally occurring species which they support.

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 Development Framework.

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.

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 will be able to demonstrate its commitment to wildlife in compliance with its duty to have regard to biodiversity conservation.

General actions

- 1) The Swale Local Development Framework will include policies to protect BAP habitats.
- 2) As far as possible, all sites supporting habitat of county importance will be designated as Local Wildlife Sites.
- 3) The importance of 'brownfield' sites for wildlife will be taken into account in planning policies and decisions. This will involve identification of the most important brownfield sites, taking into account, where appropriate, Buglife's 'All of a Buzz' project (www.buglife.org.uk/conservation/currentprojects/conservingbrownfieldinvertebrates Thames gateway), and ensuring that development proposals for brownfield sites give consideration to conservation of wildlife.
- 4) The provision of support and advice to site owners and/or managers 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 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 3 and 4).

Community

Background

Local residents often want to be involved in the protection and enhancement of their local environment, either 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. 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 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, 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.pondconservation.org.uk) notes that, although ponds are still common almost everywhere in Britain, the number of ponds has dropped enormously in the last 100 years. They estimate that, at the beginning of the 20th century, there

were nearly a million more ponds in the UK than we have now. Many of the ponds that remain are badly affected by pollution.

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, working to improve school grounds and churchyards, or supporting the work of conservation organisations.

Action with parishes and local communities

- 1) A long-term project will be established to support and 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://www.pondconservation.org.uk/pond_hap/draftpondhabitatactionplan.htm) 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.

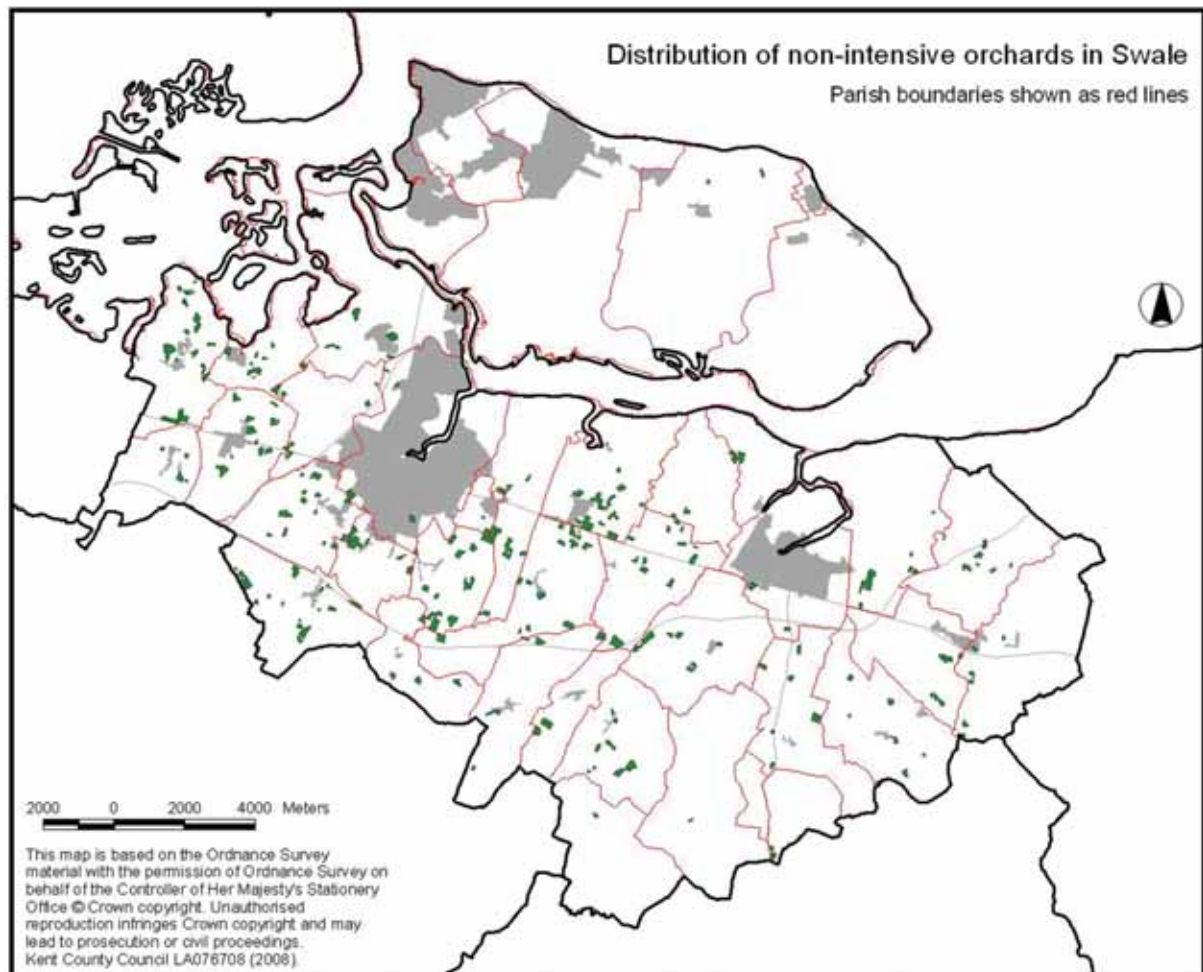


Figure 1. Distribution of non-intensive orchards in Swale

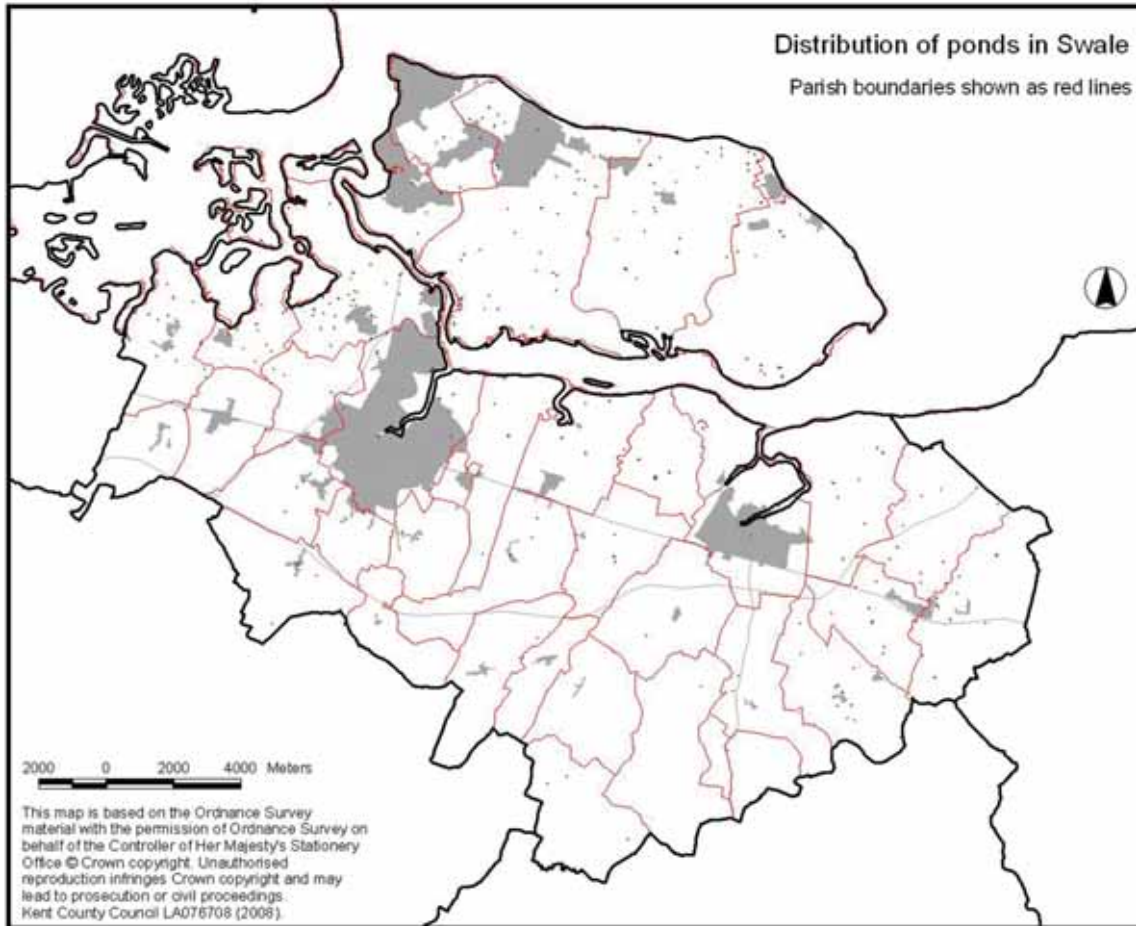


Figure 2. Distribution of ponds in Swale



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 characterized 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.

Swale has a long tradition of fruit growing. In the 1st Century AD the Romans are known to have been involved in the organised growing of fruit in Kent. There are records of Church lands around Teynham supplying fruit and in particular cherries to the Archbishops Palace in the 14th century, and, two hundred years later, Richard Harris, fruiterer to the King Henry VIII, set up the first commercial nursery in Teynham at Osiers Farm and New Gardens. In the early 17th century, the Shrubsole family, farmers and fruiterers, were awarded a coat of arms by James 1, bearing three trees laden with cherries, their orchards/gardens were extensive and stretched from Hartlip in the west to Graveney in the east.

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 a 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 1). 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.

The majority of traditional apple orchards have been grubbed with almost all the remaining old orchards being cherry. Lack of European Union support for horticulture has reduced the incentive for maintaining traditional orchards. Hence, the primary crop today from traditional orchards is now grazing, not fruit.

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, Sheldwich, Belmont and Milstead.

Action for traditional orchards

- 1) The Swale Local Development Framework 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 where they form part of wider projects for the restoration of wildlife habitats at a landscape scale.
- 3) A minimum of 25ha of traditional orchard will be restored and a further 25ha of new traditional orchard habitat created, through:
 - a) Assessing the extent, condition and composition of all traditional orchards in Swale.
 - b) Identifying and taking forward potential traditional orchard restoration projects, including gapping up with traditional varieties where trees have died.
 - c) Raising the awareness of the value of traditional orchard habitats amongst orchard owners through listings and distribution of management guidance.
 - d) Raising the awareness of the value of traditional orchard habitats through listing and promotion of community orchards and other accessible, traditional orchards.

Estuary Habitats



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 sea grass 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.opsi.gov.uk/si/si2006/20062522.htm) 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 mark 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.

Action for estuary habitats

- 1) The Swale Local Development Framework 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 3.

- 2) Opportunities will be sought and realised for extending and connecting 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) Creation of at least 100ha of new grazing marsh adjacent to the existing Swale SSSI.
 - c) Protecting, enhancing and extending habitats within or next to Milton, Conyer, Oare and Faversham Creeks, including securing the positive management of Local Wildlife Sites.

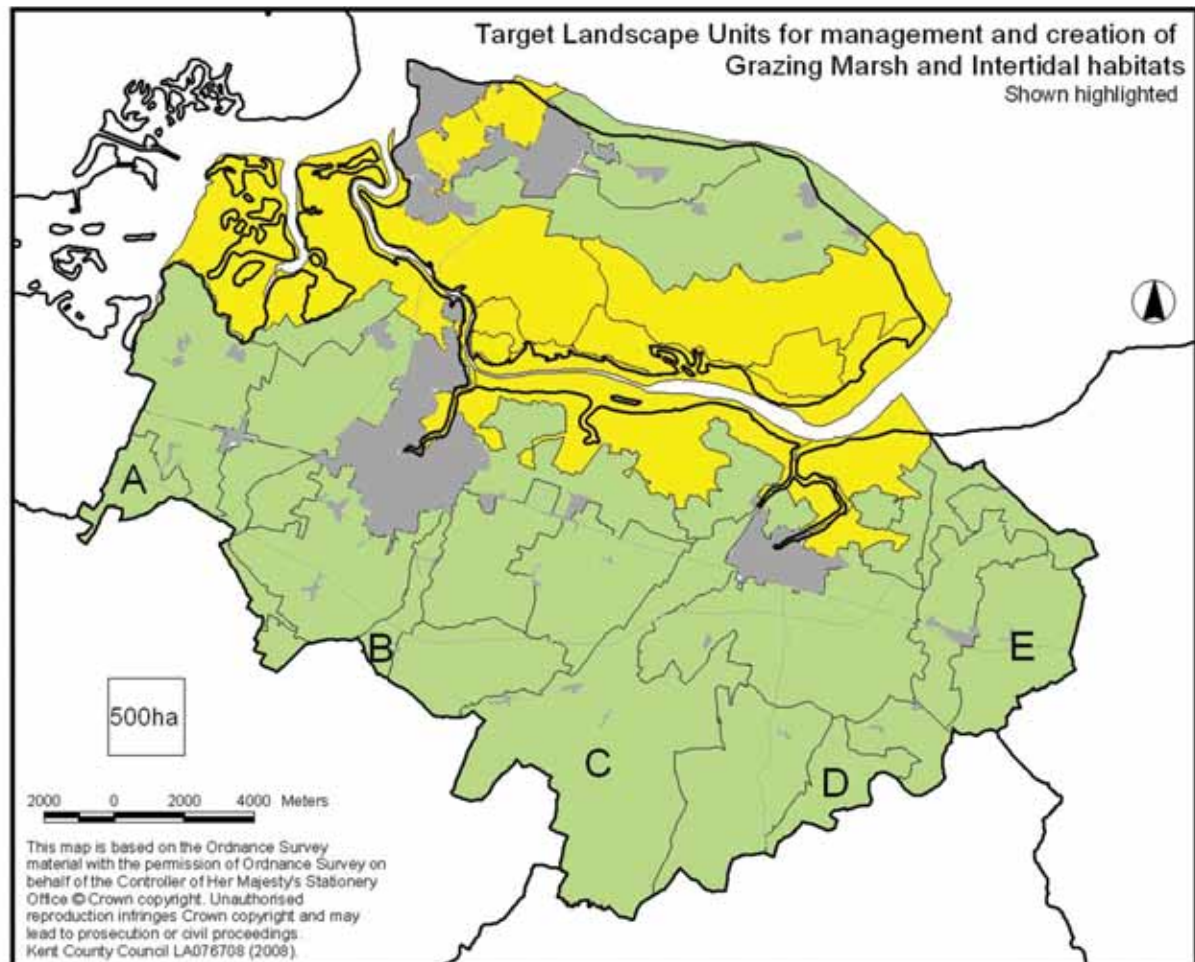


Figure 3. Target areas for grazing marsh and intertidal habitats

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 recolonised 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 Development Framework 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 will be sought and realised for enhancing, extending and connecting woodlands in target areas B-E shown in Figure 4. 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.

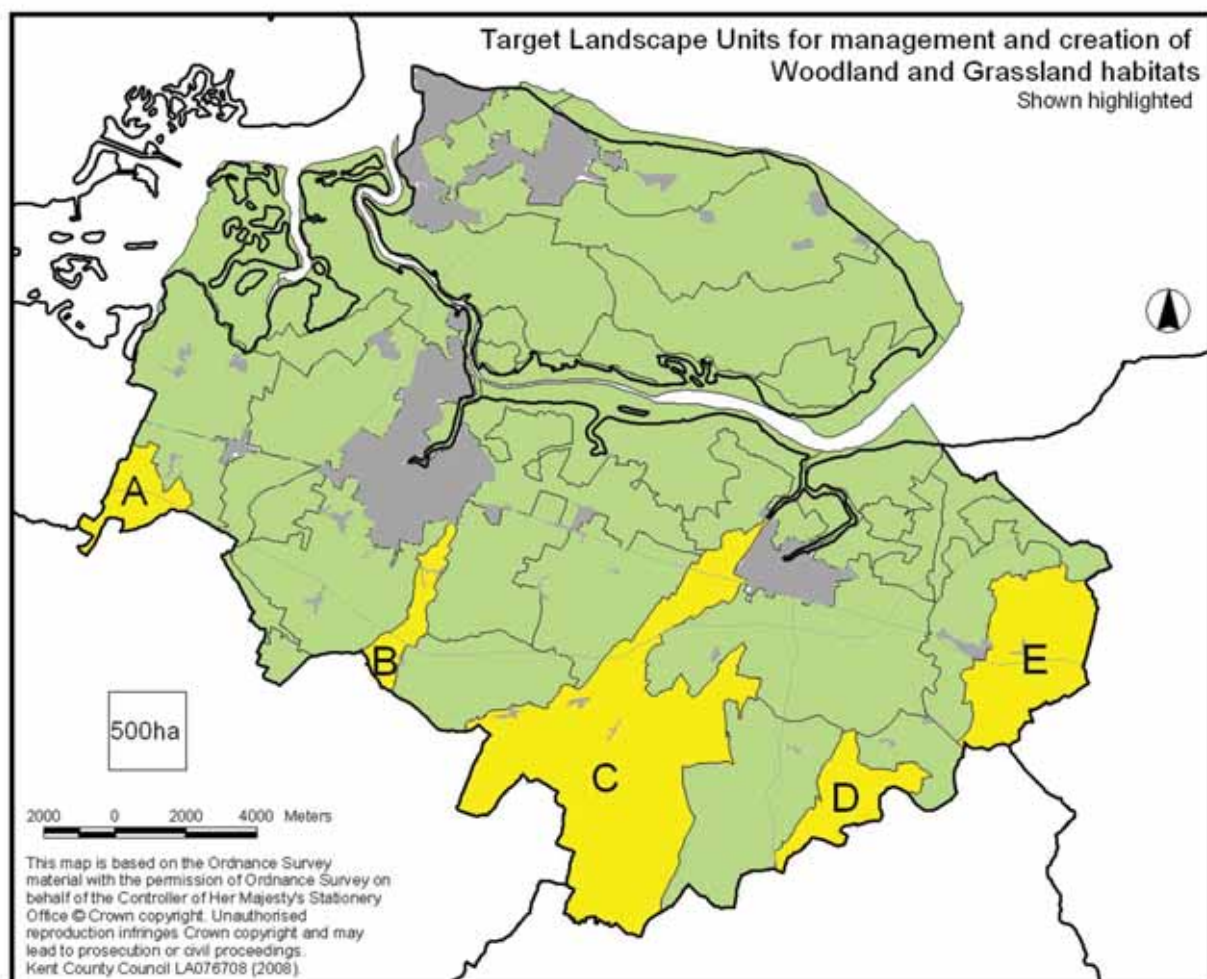


Figure 4. Target areas for woodland and grassland habitats



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 living roofs.

Action for wildflower grassland

- 1) Within target area A shown in Figure 4, projects for the maintenance, restoration or recreation of species-rich chalk grassland will be supported.
- 2) Within other target areas shown in Figure 4, 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, including that planned as part of the regeneration of the Thames Gateway, 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 include 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 (www.defra.gov.uk/erdp/schemes/els/default.htm), 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 flood 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 (April 2008), 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. The Higher Level Environmental Stewardship Scheme (www.defra.gov.uk/erdp/schemes/hls/default.htm) is currently being reviewed with the aim of making it more targeted, and there is pressure to review the Entry Level Scheme as well.

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 3 and 4, farmers and other land-owners will be encouraged and supported 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 3.
 - 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. A recent survey by Buglife the Invertebrate Conservation Trust (www.buglife.org.uk), of potentially important brownfield sites in the Thames Gateway identified seventeen sites of high or medium potential interest for invertebrates.

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. Others 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 Development Framework 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 supported, and opportunities taken for creating new flower-rich roadside verges as part of regeneration and development.
- 3) Kent Design (www.i-apu.gov.uk/council-and-democracy/priorities-policies-and-plans/priorities-and-plans/kent-design-guide/about-the-guide.htm), including the draft technical appendix on biodiversity, will be a Supplementary Planning Document within the Swale Local Development Framework.
- 4) The Kent Gardening for Wildlife Award Scheme (www.kentwildlifetrust.org.uk/work/wild-about-gardens/wildlife-gardening-awards/) will continue to be supported.
- 5) Swale Borough Council and its partners in the Swale Biodiversity Action Plan will sign up to 'Let our gardens live! A manifesto for gardens, people and nature' (www.naturalengland.org.uk/campaigns/breathingplaces/manifesto.htm).

Contacting Swale Borough Council

The **Customer Service Centre** deals with all enquiries across the Council; it should be your first stop when contacting us.

Copies of this Swale Borough Council plan are available on the Council website www.swale.gov.uk If you would like further hard copies or alternative versions (i.e. large print, audio, different language) we will do our best to accommodate your request please contact the Council at:

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