Biodiversity Distribution

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What is biodiversity?

Biodiversity refers to all of the natural world and all living organisms within it, including plants, animals, bacteria and micro organisms.

The convention on biodiversity defines it as:
"The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems" (Source: Natural England website).

Introduction to the biodiversity distribution assessment

Waveney District has a wide range of wildlife and habitats, including coastline, parkland, arable fields, rivers, hedges and woodlands. Many of these are extremely valuable in their own right and require protection and enhancement.

These sites often also form part of a wider network of sites and wildlife corridors that increase the range of habitats that can support local wildlife. Networks of biologically valuable sites often have greater value than each of the sites individually. For this reason Waveney District Council wants to map ecological sites and networks to better understand how they can function alongside other types of green infrastructure.

The Waveney District Council Biodiversity Audit was completed in 2007 by Suffolk Wildlife Trust. This biodiversity audit included officially designated sites, county wildlife sites and other sites that were considered to have ecological value. Suffolk Wildlife Trust visited each site to record the plants and wildlife present, together with any habitats. In particular, Suffolk Wildlife Trust identified protected species on each site, together with the general condition of the site and any improvements that were considered necessary. The results were used to inform the preparation of the emerging local development framework, as well as planning application decisions. The information in this section is primarily drawn from these audits which are available on the District Council's website www.waveney.gov.uk.

Consultation with Suffolk Wildlife Trust has indicated that the existing biodiversity audits[1] are still sufficiently up to date to inform plan making, although a new audit will be required on any site that is subject to a development proposal. Therefore the emphasis of this Biodiversity Distribution Assessment is to investigate the spatial distribution of protected and unprotected areas that support animal and plant species across the District the wider area where green infrastructure overlaps adjacent Districts and Boroughs.

The Biodiversity Distribution Assessment will not only support the plan making process, but it will also inform the preparation of a wider Green Infrastructure Strategy. The Green Infrastructure Strategy will combine the spatial distribution of biodiversity with those of open space, playing pitches, allotments and green corridors to provide a more thorough understanding of how these sites relate to each other, local settlements and the wider environment. The Green Infrastructure Strategy will help to better plan for future development, identify shortfalls in provision and better understand how sites and spaces can contribute to a high quality environment within the District.

[1] Waveney District Council Biodiversity Audits (2007), Suffolk Wildlife Trust www.waveney.gov.uk/site/scripts/download_info.php?downloadID=110

Description of site designations

International, national and local site designations found in Waveney

Designation	Description
Area of Outstanding Natural Beauty (AONB)	Area designated because of its outstanding landscape quality. Development within these areas is tightly controlled.
Biodiversity Action Plan (BAP)	These were introduced to aid the protection of the most endangered species and habitats. BAPs can be designated at both the national and local levels.
County Wildlife Sites (CWS)	These sites do not have statutory protection but are designated at the county level because of their biodiversity value, which is measured against specific criteria.
Local Nature Reserve (LNR)	Non statutory site designated at the county or district level because of its value to wildlife.
National Nature Reserve (NNR)	Site designated by Natural England because of its high value for wildlife or geology. These sites receive statutory protection.
Protected species	Species protected together with its breeding grounds and habitats under European Union legislation.
Ramsar Site	Sites designated under international treaty, which receive statutory protection because of their birdlife.
Roadside Nature Reserves (RNR)	Sites identified at the County level because of their rich variety of plants or plants of local or national importance. These sites do not receive statutory protection, although they may carry other designations that are statutorily protected.
Special Area of Conservation (SAC)	Area designated under the European Union Habitats Directive to give special protection to a range of plants, animals and habitats.
Special Protection Area (SPA)	Area identified as being of value for the feeding, breeding, migrating and wintering of threatened species of bird. These sites are classified under the European Wild Birds Directive and receive enhanced protection.
Site of Special Scientific Interest (SSSI)	Site designated because of its high wildlife value, which receives statutory protection. This includes both SACs and SPAs.

List of sites with biodiversity value in Waveney

Important sites in neighbouring districts

Reference	Site	Additional information
RAMSAR http://jncc.defra.gov.uk/page-1389		
1	Breydon Water	**Protected habitats:** Extensive area of tidal mudflats, which form an important habitat for wintering wildfowl.
2	Redgrave and South Lopham Fens	**Protected habitats:** Extensive example of a lowland base rich valley, which supports many scarce and rare invertebrates.
Special Areas of Conservation http://jncc.defra.gov.uk/page-23		
3	Dew's Ponds	**Protected habitats:** Series of ponds in an area of predominantly formerly agricultural land, some of which has been converted to grassland. **Protected fauna:** Great crested newts.
Special Protection Areas http://jncc.defra.gov.uk/page-162		
4	Breydon Water	**Protected habitat:** Important estuary ecosystem. **Fauna:** Bewick's swan, pied avocett, golden plover, lapwing, ruff, common tern.

Beccles

Reference	Site	Additional information
County Wildlife Site www.suffolkbiodiversity.org/wildlife-sites.aspx		
5	Beccles Common	**Protected fauna:** Common lizard.
6	Beccles Marshes	**Protected fauna:** Norfolk hawker dragonfly.
Non designated sites (sites that are not formally identified for their biodiversity value)		
7	Adjacent Beccles Common	**Habitats:** Allotment **Fauna:** Reptiles.
8	Beccles Cemetery	**Habitats:** Mown grassland and trees. **Flora:** Sycamore, holm oak, wall barley, Yorkshire fog, yellow oxalis, black knapweed, common sorrel, creeping buttercup, creeping cinquefoil, ground elder, groundsel, wood avens, germander speedwell.
9	Bramley Rise	**Habitats:** Woodland. **Flora:** Crab apple, hawthorn, hazel, oak. **Fauna:** Southern hawker dragonfly.
10	Field East of Cucumber Lane	**Habitat:** Scrub.
11	Kilbrack Churchyard	**Habitats:** Improved grassland and mature trees.
12	Land between Woodland Avenue and Holly Close, Worlingham	**Habitat:** Ancient woodland. **Flora:** Mature ash, oak, Scot's pine, and hawthorn, hazel, flowering privet, bramble, elder, nettle, hedge woundwort, wood avens, violets, arum, ground ivy.
13	Meadow Gardens	**Habitats:** Borders of the site include a range of plants that are important for nesting birds and invertebrates. **Fauna:** Grasses, orchids.
14	Paddock west of George Westwood Way	**Habitat:** Meadowland with a ditch running through it. **Protected fauna:** Water voles.
15	Railway Line Verges in Beccles	**Habitat:** Wildlife corridor. **Flora:** Hare's foot clover, dove's foot cranesbill, fat hen, yarrow, perforate St. John's wort, tansy, goat's beard, hairy tare, hop trefoil, black medick, common vetch.
16	Rigbourne Hill Lane	**Habitats:** Sunken lane surrounded by trees and undergrowth. Wildlife corridor. **Flora:** Mature hazels and oaks, as well as greater celandine, wood avens, hedge woundwort, herb Robert. **Protected fauna:** Slow worm.
17	St. Mary's Paddock	**Habitats:** Mown grass surrounded by hedge. **Fauna:** Elm, oak, plane, horse chestnut, beech, ash sycamore, bluebells.
18	St. Michael's Churchyard	**Habitats:** Grassland surrounded by trees. **Flora:** Mouse ear, hawkweed, daisy, black medick, field madder, rough hawkbit and yarrow, ash, sycamore, rowan, pine, yew, cherry laurel, holly, lime, larch.
19	The Quay	**Habitats:** Short grassland and ditch. **Flora:** Willows, poplar.
20	Waveney Meadow	**Habitats:** Meadowland fringed by trees and a river. **Flora**: Hybrid black poplar alder, willow, oak, ash, yew, blackthorn, Yorkshire fog, cow parsley and creeping thistle closest to the car park, meadowsweet, great willowherb, reed canary grass, reed sweet grass, common reeds, orange balsam.

Bungay

Reference	Site	Additional information
Non designated sites (sites that are not formally identified for their biodiversity value)		
21	Bungay Cemetery	**Habitats:** Short cut grassland, hedgerows and areas of longer grassland. **Flora:** Elm, hawthorn, bramble, stonecrop, mouse-ear hawkweed. **Protected fauna:** Slow worm, common lizard.
22	Castle Hill	**Habitats:** Grassland and gorse. **Flora:** Hare's foot clover, buck's horn plantain.
23	Hillside Road West Allotments	**Habitats:** Allotments surrounded by hedgerows. **Flora:** Hybrid poplars.
24	Land at Hillside Road East/St. John's Road (next to the Sewage Treatment Works)	**Habitats:** Mixture of mature secondary woodland, open ground. **Flora:** St. John's wort, sycamore.
25	Land between Staithe Road/Trinity Gardens and River Waveney (BA)	**Habitats:** River bank, woodland, open land. **Flora:** Reeds, purple loosestrife.
26	Land to the rear of Davey Close	**Habitats:** Thick hedge, secondary woodland. **Flora:** Ivy, flowering privet. **Protected fauna:** Marsh tit.
27	Olland's Plantation	**Habitat:** Plantation with thick tree covering.
28	Rear of 9-11 St. John's Road Allotments	**Habitats:** Disused allotment site surrounded by hedges mature trees. **Flora:** Nettle, dock.
29	Skinner's Meadow	**Habitat:** Open field surrounded by hedges.
30	St Mary's Churchyard	**Habitat:** Churchyard with cut grass. **Flora:** Knapweed, greater celandine. **Fauna:** Spotted flycatcher.
31	Stow Fen	**Habitats:** Extensive areas of grazed pasture, river. **Flora:** Lesser water parsnip, water speedwell, brooklime, starwort. **Fauna:** Banded demoiselle and other odonata species, roach. **Protected fauna:** Otter
32	Trinity Churchyard	**Habitat:** Cut grassland. **Fauna:** Lime trees, bramble, ivy, clover, daisy, medick species, creeping buttercup, common sorrel.
33	Woodland Drive	**Habitat:** Grassland bounded by trees next to the Flixton Road. **Flora:** Larch, sycamore, red oak, lime whitebeam, ash, Scot's pine, common grass with occasional clumps of ploughman's spikehard. **Fauna:** Common butterfly. **Protected fauna:** Norfolk Hawker dragonfly.

Halesworth

Reference	Site	Additional information
Site of Special Scientific Interest www.sssi.naturalengland.org.uk/Special/sssi/index.cfm		
34	Holton Pit	Site of geological importance.
County Wildlife Site www.suffolkbiodiversity.org/wildlife-sites.aspx		
35	Birds Folly	**Habitats:** Acidic grassland with scrub and woodland to the north of the site. **Flora:** Spring annuals, fern. **Protected fauna:** Grass snake, slow worm, common lizard.
36	Fairview Farm Meadow	**Habitats:** Species rich grassland.
37	Halesworth Cemetery	**Habitat:** Species rich grassland. **Protected fauna:** Grass snake, common lizard, slow worm, bullfinch.
38	Halesworth Cemetery	**Habitat:** Species rich grassland. **Fauna:** Reptiles.
39	New Reach River and Marsh	**Habitats:** Watercress and surrounding remnant marsh. **Flora:** Range of aquatic, emergent and marginal vegetation, including starwort, broad-leaved pondweed, iris and watercress, ragged robin, hemp agrimony, hemp nettle, marsh thistle, hairy sedge, skullcap.
Non designated sites (sites that are not formally identified for their biodiversity value)		
40	Corridor between Harrisons Lane and Fair View Road, rear of car showrooms	**Habitats:** Grassland with a line of trees, a hedge and ditch. **Flora:** Stonewart. **Protected fauna:** Frogs.
41	Halesworth Green, Saxons Way	**Habitats:** Rough grassland and hedge with large patches of bramble. **Protected fauna:** Slow worm, common lizard, house sparrow.
42	Halesworth Millennium Green	**Habitats:** Pasture containing rough grasses and wildflowers. **Flora:** Gyspywort, water mint and water forget-me-not, purple loosestrife, lesser water parsnip, meadowsweet, aquatic starwort. **Fauna:** Jackdaw, jay, wood pigeon, moles, rabbits. **Protected fauna:** Barn owls.
43	Land between Thoroughfare and Market Place	**Habitats:** Area of trees and extensive bramble and hedges. **Flora:** Nettle, comfrey, ground elder, hedge woundwort, hazel, sycamore. **Protected fauna:** Long eared bats.
44	Loam Pit Lane	**Habitat:** Allotment garden. **Protected fauna:** Grass snake, slow worm, common lizard.
45	New Reach River	**Habitat:** River. **Flora:** Aquatic species, land based plants.
46	Railway Line Verges in Halesworth	**Habitat:** Grassed areas.
47	Rear of 33-39 Bedingfield Crescent	**Habitat:** Allotments. **Protected fauna:** Starling, house sparrow. **Other fauna:** Jackdaw, collared dove, greenfinch, goldfinch.
48	St. Mary's Churchyard	**Habitat:** Churchyard. **Flora:** Holm oak, cut leaf geranium, plantain, dandelions, chickweed, black medick. **Protected fauna:** Starling. **Other fauna:** Collared dove, wood pigeon.
49	Swan Lane Allotments	**Habitat:** Allotments bordered by trees.
50	Town Park	**Habitat:** Amenity grassland with a hedgerow and watercourse. **Flora:** Plane, Scots pine.

Kessingland

Reference	Site	Additional information
County Wildlife Site www.suffolkbiodiversity.org/wildlife-sites.aspx		
51	Kessingland Levels	**Habitat:** Grazing marsh. **Protected fauna:** Norfolk hawker dragonfly, water vole, short eared owl. **Other fauna:** Wigeon, pochard, snipe, mute swan, moorhen, teal, mallard.
52	Kessingland Reedbed	**Habitats:** Low scrub and grassland. **Flora:** Willowscrub. **Protected fauna:** Cetti's warbler, grasshopper warbler, reed bunting, linnet. **Other fauna:** Nightingale, water rail, lesser whitethroat, whitethroat.
Non designated sites (sites that are not formally identified for their biodiversity value)		
53	Allotments (Church Road and Coopers Lane)	Allotments are bordered by a mature hedge containing hawthorn, elm, sycamore.
54	Land adjacent Kessingland Cliffs	**Habitat:** Wildlife corridor and area of scrub. **Flora:** Hawthorn, blackthorn, elder, nettle, cleavers, hedge woundwort.
55	St. Edmund's Churchyard	**Habitat:** Churchyard, mown grass, taller grass, herbs, scrub, hedges, mature trees. **Fauna:** Easter grass, bulbous buttercup, primrose, yew, hawthorn, ivy.
56	Wooded corridor north of Rider Haggard Lane	**Habitat:** Wooded corridor. **Flora:** Ash, hawthorn, Italian Poplars, elder, privet, oak and Scots pine, bramble, nettle.

North Lowestoft

Reference	Site	Additional information
County Wildlife Site www.suffolkbiodiversity.org/wildlife-sites.aspx		
57	Bonds Meadow	**Protected habitats:** Wet woodland, fens, pond. **Protected fauna:** Song thrush, dunnock.
58	Christmas Lane Meadow	**Protected habitats:** Fen, Species rich grassland. **Protected fauna:** Cetti's warbler, house sparrow, Norfolk hawker dragonfly.
59	Dairy Farm Marshes	**Protected habitats:** Coastal and floodplain grazing marsh, reed bed, wet woodland, fen. **Protected fauna:** Water vole, barn owl, Cetti's warbler, common lizard, grass snake, Norfolk hawker dragonfly, reed bunting, barn owl, shining ramshorn snail, tubular water dropwart.
60	Dairy Farm Marshes	**Habitats:** Grazing marsh, fen meadow, tall fen, reedbed. **Flora:** Alder carr, hairy willowherb, reed sweetgrass, southern marsh orchid, bog pimpernel, marsh arrowgrass, marsh sowthistle, frogbit, arrowhead, tubular water dropwort. **Protected fauna:** Grass snake, Norfolk hawker dragonfly, water vole, reed bunting, Cetti's warbler, barn owl, shining Ramshorn snail.
61	Foxburrow Wood	**Protected habitats:** Ponds and wet woodland. **Habitat:** Ancient & semi-natural woodland. **Protected fauna:** Song thrush, house sparrow, dunnock, lesser spotted woodpecker.
62	Great Eastern Linear Park	**Habitats:** Bramble scrub with mature trees and a small stream. **Flora:** Water cress, gorse, tansy, hawthorn, mugwort, ground ivy, sycamore, cow parsley, hop trefoil.
63	Gunton Meadow	**Habitats:** Lowland hay meadow, species rich grassland.
64	Gunton Pond	**Protected habitats:** Pond. **Flora:** Water plantain, common spotted orchid, common fleabane, white water lily, woody nightshade, water violet, common water starwort, wood avens, water mint, common fleabane, yellow flag.
65	Gunton Warren	**Protected habitats:** Coastal sand dunes, coastal, vegetated shingle, lowland heath, maritime cliffs and slopes. **Flora:** Sea kale, sea sandwort, sea holly, sea pea. **Protected fauna:** Adder, Dartford warbler, song thrush, linnet, yellowhammer, common lizard, adder, ant lion.
66	Hall Road Ham	**Protected habitats:** Wet woodland, fen. **Flora:** Herb-Robert, yellow flag, hemp-agrimony, hedge woundwort, soft rush, great willow herb, common flax, common comfrey, water dock, common reed, Japanese knotweed. **Protected fauna:** Cetti's warbler, song thrush, lesser redpoll.
67	Leathes Ham	**Protected habitat:** Eutrophic standing waters. **Flora:** Sallow, gypsywort, yellow flag, common duckweed, water mint, hairy willow herb, square stemmed willowherb,

Reference	Site	Additional information
		celery leaved buttercup, intermediate water starwort, figwort, soft rush, jointed rush, brooklime, coltsfoot, brookweed, elm, hazel, oak, hawthorn, blackthorn, herb-Robert, honeysuckle, broad buckler fern, hedge woundwort, biting stonecrop. **Protected fauna:** Norfolk hawker dragonfly.
68	Lowestoft Harbour Kittiwake Colony	**Habitat:** Artificial cliff on the harbour wall. **Protected species:** Kittiwake.
69	Ness Point	**Habitat:** Concrete wall with large concrete blocks. **Flora:** Sea sandwort, yellow-horned poppy, scurvy grass. **Protected fauna:** Purple sandpiper. **Other fauna:** Turnstones, rock pipits, Mediterranean gulls, little gulls, little terns, common terns, sandwich, guillemot, razorbill, great crested grebe.
70	Oulton Marsh	**Habitat:** Wetland mosaic.
71	Oulton Marsh Dykes	**Protected habitats:** Coastal and floodplain grazing marsh, fen, reedbed, wet woodland. **Protected fauna:** Water vole, grass snake, Norfolk hawker dragonfly, common lizard, marsh harrier, reed bunting, barn owl, water shrew, grasshopper warbler.
72	Oulton Road Pond and Meadow	**Protected habitat:** Pond.
73	Parkhill Wood	**Habitat:** Woodland.
74	Rustyback Fern Site	**Habitat:** Small tidal mudflats. **Flora:** Rustyback Fern, imperforate St. Johns wort, blue fleabane, birds-foot-trefoil, musk thistle, ribbed melilot, wild carrot, black knapweed, grass-leaved orache, sea-purslane, annual sea blite, sea aster, sea plantain, greater sea spurrey . **Protected Fauna:** Herring gull.
75	St Margaret's Churchyard	**Habitats:** Species rich grassland, boundary hedges. **Flora:** Yew, wych elm, holly, holm oak, dog violets, bluebells, corn salad, oxe eye daisies.
76	Workhouse Wood	**Habitats:** Woodland.
Local Nature Reserve	www.lnr.naturalengland.org.uk/Special/lnr/lnr_search.asp	
77	Leathes Ham	**Protected habitat:** Eutrophic standing waters. **Flora:** Sallow, gyspywort, yellow flag, common duckweed, water mint, hairy willow herb, square stemmed willowherb, celery leaved buttercup, intermediate water starwort, figwort, soft rush, jointed rush, brooklime, coltsfoot, brookweed, elm, hazel, oak, hawthorn, blackthorn, herb-robert, honeysuckle, broad buckler fern, hedge woundwort, biting stonecrop. **Protected Fauna:** Norfolk hawker dragonfly, dunnock. **Other fauna:** Blackbird, wren, chaffinch, coot, moorhen, sedge warbler, Canada geese, mute swan, black tailed skimmer, violet ground beetle, painted lady, common blue butterfly.
78	Gunton Warren	**Protected habitat:** Coastal sand dunes, coastal vegetated shingle, lowland heath, maritime cliffs and slopes.

Reference	Site	Additional information
		Protected fauna: Adder, Dartford warbler, song thrush, linnet, yellowhammer, common lizard, adder, ant lion.
79	Gunton Wood	**Protected habitats:** Pond. Wildlife corridor. **Protected fauna:** Great crested newt, black poplar, song thrush.
Ancient Woodland www.forestry.gov.uk/fr/INFD-5W2G8Q		
80	Foxburrow Wood	**Protected habitats:** Ponds, small area of wet woodland, ancient and semi-natural woodland. **Protected species:** Song thrush, house sparrow, dunnock, lesser spotted woodpecker.
81	Workhouse Wood	**Habitats:** Ancient and semi-natural woodland.
Non designated sites (sites that are not formally identified for their biodiversity value)		
82	Adjacent Northfield St. Nicholas School	**Habitat:** Allotments with hedges, compost heaps. **Plant species:** Alexanders, common fumitory, pellitory of the wall, common nettle. **Protected fauna:** House sparrow. **Other fauna:** Small tortoiseshell, small white butterflies, fox, brown rats.
83	Arnolds Bequest	**Habitats:** Mature trees, scrub, small spring. **Flora:** Sycamore, elder, suckering elm, alexanders, Himalayan balsam, elder, bluebell. **Protected fauna:** Song thrush, dunnock, tawny owls.
84	Belle Vue Park	**Habitat:** Formal garden with shrubs and rank grass. **Flora:** Alexanders, holm oak, bluebell, ground ivy, Yorkshire fog, cocksfoot, Scots pine, rhododendron. **Protected fauna:** Dunnock. **Other fauna:** Blackbird, chaffinch, small white butterfly, grey squirrel.
85	Church Road / Water Lane Allotments	**Habitat:** Allotments, hedges, compost heaps and ruderal herbs. **Flora:** Bramble. **Protected fauna:** House sparrow. **Other fauna:** Blackbird, small tortoiseshell, small white butterfly, common butterflies.
86	College Meadows	**Habitats:** Species poor improved grassland with a hedge boundary. **Flora:** Common nettle, ground ivy, white clover, creeping buttercup, hog weed. **Protected fauna:** House sparrow, starling.
87	Disused railway Gunton (additional site)	**Habitats:** Overgrown railway embankment with rank grass and scrub. **Flora:** Blackthorn, elder, holm oak, ash, pedunculate oak, wood avens, sheep sorrel, caper spurge, Yorkshire fog, Timothy grass, wild strawberry, tree lupin, black knapweed, hop trefoil, common vetch, hairy tare. **Protected fauna:** Song thrush.
88	Grassland at Pleasurewood Hills	**Protected habitats:** Lowland hay meadow, ponds. **Flora:** purple orchid, green winged orchid, twayblade. **Protected fauna:** Great crested newts, grass snake.
89	Jenkins Green	**Habitats:** Small pond surrounded by grass and trees.

Reference	Site	Additional information
		Flora: Black bryony, meadowsweet, common fleabane, bramble, gorse, osier, common reed.
90	Kensington Gardens	**Habitats:** Formal gardens and lawns with a small pond. **Flora:** Holm oak, common duckweed, reed, water figwort, pellitory of the wall. **Protected fauna:** House sparrow, hedgehog, starling. **Other fauna:** Chaffinch, willow warbler, collared dove, wood pigeon.
91	Land east of Peto Way, Lowestoft	**Habitats:** Mature trees and scrub. **Flora:** Nipplewort, daisy, smooth sow thistle, spear thistle, ragwort, yarrow, common nettle, ground ivy and cut leaved cranesbill, sycamore, copper beech, white popular, Scots pine, privet, bramble.
92	Lowestoft Cemetery	**Habitats:** Grasslands with avenues of mature trees. **Flora:** Lime, horse chestnut, red clover, mouse-ear hawkweed, common cats-ear, autumn hawkbit, biting stonecrop, yarrow. **Fauna:** Grey squirrel, chaffinch, robin, blackbird, magpie.
93	Moncton Avenue	**Protected habitats:** Wet woodland, ponds. **Flora:** Beech, willow, oak, holly, ivy, common duckweed, sycamore.
94	Net Drying Area	**Protected habitat:** Acid grassland. **Protected fauna:** Skylark, starling.
95	Normanston Park Allotments	**Habitats:** Overgrown allotments with hedge boundary, wood piles, compost heaps. **Flora:** Common nettle, docks, ground ivy, white clover, bramble, comfrey. **Protected fauna:** House sparrow. **Other fauna:** Chaffinch, wren, greenfinch, wood pigeon.
96	North Beach: Ness Point to Links Hill	**Habitat:** Coastline.
97	North Denes Former Campsite and land east of Sparrows Nest	**Protected habitat:** Acid grassland. **Protected species:** Linnet, dunnock.
98	Off Millennium Way, Lowestoft	**Habitat:** Species rich meadow. **Flora:** Sallow salix, blackthorn, hawthorn, holme oak, gorse and bramble, orchids, ragwort, perforate St. John's wort, hogweed, wild radish, black horehound, ribwort plantain, greater plantain, mugwort, white clover, white campion, catsear, hairy tare, mayweed, coltsfoot, daisy, beaked hawksbeard, fox-and-cubs, meadow vetchling, goatsbeard, pineapple mayweed, hedge bindweed, common storksbill, common chickweed, common fleabane, common sow-thistle, creeping thistle. **Fauna:** Small white, meadow brown, gatekeeper and Essex skipper butterflies, migrant hawker dragonfly.
99	Sparrow's Nest	**Habitats:** Formal gardens and shrubs. **Flora:** Bluebell, holm oak, alexanders, ground ivy, holly, hogweed. **Protected fauna:** Dunnock, bats, hedgehogs, tawny owl. **Other fauna:** Collared dove, blackbird, robin, spotted fly catcher, grey squirrel.

Reference	Site	Additional information
100	St. Peter's Churchyard	**Habitats:** Rough grass, medium sized trees. **Flora:** Field maple, yew, daisy, germander speedwell, dandelion, creeping cinquefoil, black medick, yarrow, pellitory-of–the-wall, yew, selfheal, field maple. **Fauna:** Greenfinch, chaffinch, speckled wood butterfly.
101	Wissett Way	**Habitats:** Pond surrounded by grassland and trees. **Flora:** Poplar, oak, hawthorn, bramble. **Protected fauna:** House sparrow.
102	Woodland south of Princes Walk	**Habitat:** Woodland with a mixture of young and mature trees. **Flora:** Lime, crack willow, sycamore, silver birch, sallow, elder, hazel, hawthorn, private, gorse, bramble, elm, ivy, common nettle, rosebay willowherb, ragwort, perforate St. John's wort, hogweed, wild radish, black horehound, ribwort plantain, nipplewort, white campion, herb Robert, common mallow, barron brome, variety of invertebrates. **Protected fauna:** House sparrow. **Other fauna:** Wood pigeon, blackbird, robin, wren.

South Lowestoft

Reference	Site	Additional information
Special Areas of Conservation http://jncc.defra.gov.uk/page-23		
103	Sprat's Water and Marshes, Carlton Colville	Habitats of European significance include tall fen, wet alder woodland, calcium-rich spring water.
Special Protection Areas http://jncc.defra.gov.uk/page-162		
104	Sprat's Water and Marshes, Carlton Colville	Marsh harrier, water rail, Cetti's warbler, bearded tit.
Site of Special Scientific Interest www.sssi.naturalengland.org.uk/Special/sssi/index.cfm		
105	Pakefield to Easton Bavents	**Habitats:** Vegetated shingle, including eroding shingle, stable shingle, grassland, dunes. **Flora:** Rare vascular plants. **Protected fauna:** Bitterns, marsh harriers.
106	Sprat's Water and Marshes, Carlton Colville	**Protected habitats:** Coastal and floodplain grazing marsh, fen, reedbed, wet woodland. **Flora:** Saw sedge, marsh clow-thistle. **Protected fauna:** Norfolk hawker dragonfly, common lizard, grass snake, water vole, barn owl, reed bunting, shining ramshorn snail, little whirlpool ramshorn snail, pea mussel, glow worm.
County Wildlife Site www.suffolkbiodiversity.org/wildlife-sites.aspx		
107	Brooke Yachts and Jeld-Wen Mosaic	**Protected habitats:** Small area of intertidal mudflat. **Habitats:** Woodland, scrub, rank and short grassland. **Flora:** Bramble, privet, hawthorn scrub with dense patches of gorse and woodland containing mature oaks, sycamore with silver birch, diseased Dutch elm trees, hairy sedge, creeping thistle, and meadow vetchling, biting stonecrop, English stonecrop and common centaury, cocksfoot, wall barley, Yorkshire fog, perennial rye grass, sea couch, Barren Brome, rough meadow-grass, soft rush, saltmarsh rush, common nettle, rosebay willowherb, great willowherb, common cleavers, ragwort, perforate St John's wort, hogweed, creeping thistle, wild radish, black horehound, ribwort plantain, greater plantain, sea plantain, buckshorn plantain, prickly sow-thistle, smooth sow-thistle, Oxeye Daisy, wild carrot, common sorrel, sheep's sorrel, yarrow, mugwort, haresfoot clover, white clover, white campion, common mallow, dog rose, birdsfoot trefoil, hop trefoil, catsear, great mullein, hairy tare, mayweed, coltsfoot, silver weed, daisy and self heal, honeysuckle, willow, sallow. **Protected fauna:** Common lizard, dunnock, linnet, herring gull.
108	Carlton Grove	**Habitat:** Woodland. **Flora:** Ash, oak, holly, elder, hazel, hornbeam, sweet chestnut. **Fauna:** Grey squirrel, muntjac, rabbit, fox, chaffinch, wren.
109	Kirkley Ham	**Protected habitats:** Fen, reedbed, wet woodland, acid grassland. **Other habitats:** Rough grassland, gorse and ponds. **Flora:** Gypsy wort, tufted vetch, corn spurrey, yellow flag iris, bladder campion, purple-loosestrife, celery-leaved buttercup, marsh willowherb, southern marsh orchid. **Protected fauna:** Common lizard, song thrush, yellow hammer, common lizard, reed bunting, song thrush, yellowhammer, wren, meadow pipit, willow warbler, chiffchaff, reed warbler and reed bunting, common darter,

Reference	Site	Additional information
		blacked-tailed skimmer, blue-tailed damselfly, large white, meadow brown, red tailed bumble-bee.
110	Old Golf Course (West)	**Habitats:** Scrub and rough grass. **Flora:** Bramble, gorse, hemlock, tansy, tufted vetch, mugwort. **Protected fauna:** Song thrush, dunnock, linnet. **Other fauna:** Meadow brown, small white, small skipper, gatekeeper, peacock.
111	Pakefield Beach	**Habitats:** Dunes and vegetated shingle. **Flora:** Sea holly, yellow horned poppy, curled dock, sea pea, sea kale, sea beat, biting stonecrop, sea sandwort, marram grass, hares foot clover. **Protected species:** House sparrow, slow worm.
112	Pakefield Cliffs	**Protected habitats:** Vegetated shingle, maritime slopes and cliffs. **Flora:** Curled dock, sea pea, sea kale, sea beet, sea sandwort, marram grass, scented agrimony, wild carrot, halberd-leaved orache, bee orchid. **Protected fauna:** House sparrow, starling. **Other fauna:** Sand martins, Dartford warblers
113	Pakefield Park	**Protected habitats:** Acidic grassland. **Habitats:** Rough grassland, scrub, woodlands. **Fauna:** Sheep sorrel, black knapweed, smooth hawks-beard, broom, gorse, pedunculate oak, hawthorn, blackthorn. **Protected fauna:** Bullfinch, song thrush. **Other fauna:** Chaffinch, robin, blackbird, blue tit, magpie, wren, chiffchaff, woodpigeon, treecreeper, meadow brown, large white, ringlet.
114	Share Marsh Dyke	**Habitat:** Grazing marsh.
Non designated sites (sites that are not formally identified for their biodiversity value)		
115	Area between Stradbroke Road and Silverwood Close	**Habitats:** Rank grass and scrub. **Flora:** Bracken, nettles, ground ivy, white clover, creeping buttercup, greater burdock, white clover, hops, Indian balsam. **Protected fauna:** House sparrow. **Other fauna:** Blackbird chaffinch, red admiral, meadow brown.
116	Dale End	**Habitats:** Tall grassland with scattered scrub, banks and hedgerow. **Flora:** Bristly ox-tongue, selfheal, meadow vetchling, scarlet pimpernel, field penny-cress, tufted vetch, lady's bedstraw, birds-foot-trefoil, bladder campion, field scabious, musk mallow, black knapweed, imperforate St Johns-wort, sea buckthorn, crested dog's-tail, creeping thistle, field maple. **Fauna:** Chaffinch, blackbird, speckled wood, meadow brown, small white, black tailed skimmer.
117	Grove Primary School Grounds	**Habitat:** Secondary woodland. **Flora:** Blue bells, hornbeam, ash, field maple and hawthorn, red campion, hogweed, common chickweed, black medick. **Fauna:** Blackbird, wren, chaffinch, large white, speckled wood, ringlet, grey squirrel, fox. Protected fauna: House sparrow.
118	Kirkley Cemetery	**Habitats:** Cemetery. **Flora:** Corsican pine, common nettle, ground ivy, white clover, creeping buttercup, smooth hawksbit, mouse-ear hawkweed, common vetch, oxeye daisy, biting stonecrop, white clover, red clover. **Protected fauna:** House sparrow, starling.

Reference	Site	Additional information
		Other Fauna: Green woodpecker, blackbird, chaffinch, meadow brown butterfly.
119	Land adjacent to the Dell Primary School	**Habitat:** Woodland.
120	Land near Castleton Avenue, Carlton Colville	**Habitats:** Rank grassland, bushy hedge, bramble scrub. **Flora:** Oak, blackthorn, hawthorn, field maple, ash, *buddleia sp* and diseased elm, common nettle, rosebay willowherb, great willowherb, hogweed, creeping thistle, spear thistle, black horehound, greater plaintain, yarrow, hedge bindweed, water figwort, branched bur-reed, horseradish, coltsfoot, broad-leaved dock cocksfoot, Yorkshire fog, marsh foxtail. **Protected fauna:** Dunnock. **Other fauna:** Wood pigeon, collared dove, goldfinch, chaffinch blue tit, holly blue, small white butterflies, brown hawker, common darter, migrant hawker dragonflies, dark bush-crickets.
121	Land off Hall Road, Carlton Colville	**Habitats:** Meadow and mature trees. **Flora:** Mature beech, Corsican pine, lime, hawthorn, holly, elder, ivy, dog rose, bramble, oak saplings, common nettle, ragwort, hogweed, spear thistle, creeping thistle, field horsetail, black horehound, ribwort plaintain, greater plaintain, hedge woundwort, smooth sowthistle, cat's ear, yarrow, scentless mayweed, mugwort, ragwort, red deadnettle, white clover, meadow buttercup, common mallow, cocksfoot, timothy, wall barley, Yorkshire fog, perennial rye grass. **Protected fauna:** Linnet, house sparrow. **Other fauna:** Whitethroat, blackbird, goldfinch, chaffinch, woodpigeon.
122	Land west of Carlton Hall, Chapel Road	**Habitats:** Meadow with mature trees and a horse paddock. **Flora:** Mature beech, Corsican pine, lime, hawthorn, holly, elder, ivy, dog rose *and* bramble, with young oak saplings, common nettle, ragwort, hogweed, spear thistle, creeping thistle, field horsetail, black horehound, ribwort plaintain, greater plaintain, hedge woundwort, smooth sowthistle, cat's ear, yarrow, scentless mayweed, mugwort, ragwort, red deadnettle, white clover, meadow buttercup, common mallow, cocksfoot, timothy, wall barley, Yorkshire fog, perennial rye grass. **Protected fauna:** House sparrow, dunnock. **Other fauna:** Chaffinch, blackbird, wood pigeon. **Fauna:** Meadow butterfly.
123	Nicholas Everitt Park	**Habitats:** Lawns and formal gardens, pond, ditch, reed bed. **Flora:** Great willow-herb, common duck weed, gypsywort, common fleabane, common reed, black bryony. **Protected fauna:** House sparrow, European eel, slow worm, common lizard, common toad, water vole. **Other Fauna:** Fox, grey squirrel, wren, blackbird, chaffinch, moorhen, mallard, mute swan, comma, red admiral, speckled wood.
124	Off Airedale	**Habitats:** Grassland with some non-native species of tree. **Flora:** Bristly oxe-tongue, selfheal, white clover, birds-foot-trefoil.
125	Rear of Green Drive	**Habitats:** Rough grassland and boundary hedge. **Flora:** Yarrow, ribwort plantain, white clover, wall barley and evergreen holm oak, ash. **Protected species:** House sparrow. **Other fauna:** Meadow brown butterfly, grey squirrels.

Reference	Site	Additional information
126	Stradbroke Road Allotments	**Habitats:** Allotment plots with areas of rough grassland. **Flora:** Poplar, ivy, mature oak, sun spurge, petty spurge, knotgrass, annual mercury, nipplewort, garlic mustard, scarlet pimpernel. **Protected fauna:** House sparrow, song thrush. **Other fauna:** Wren, blackbird, chaffinch, fox, squirrel, red admiral, large white butterflies.
127	Wildlife corridor along South Lowestoft Relief Road	**Protected habitats:** Fen, pond. **Other habitats:** Grassland, scrub, trees, wet boggy areas. **Flora:** Water plantain, fools water cress, water forget-me-not, vipers bugloss, water-solider, water figwort, watercress, common duckweed, Canadian waterweed, curled pondweed, amphibious bistort, water mint, purple loosestrife, intermediate water starwort, stonewort, greater spearwort, bog pondweed, biting stonecrop, yarrow, imperforate St John's wort, oxeye daisy, weld, tufted vetch, hops, monkey flower, common fleabane, borage, tansy. **Protected fauna:** Water vole, common lizard (Kirkley Ham only), common lizard, bats. **Other fauna:** Short tailed voles, squirrels, fox, rabbit, chaffinch, robin, blackbird, magpie, moorhen, wren, treecreeper, banded demoiselle, broad bodied chaser, blue-tailed damselfly, meadow brown, large white, red admiral.

Southwold and Reydon

Reference	Site	Additional information
County Wildlife Site www.suffolkbiodiversity.org/wildlife-sites.aspx		
128	Buss Creek	**Habitats:** Tributary river with marshes to the east. **Protected fauna:** Hen harrier, marsh harrier, short eared owl, barn owl, water voles, dragonfly, grass snake.
129	Clay Common Ponds	**Habitat:** Mosaic with aquatic flora.
130	Deep Hole	**Habitat:** Wet species rich grassland.
131	Easton Marshes	**Habitats:** Established shingle, sandy heathland and scattered gorse. **Flora:** Sticky groundsel, sea purslane, stork's bill. **Fauna:** Lapwing, redshank, shoveler, tufted duck, gadwall, teal, Bewick's swan, white fronted geese, Brent geese, greylag, Canada geese.
132	Easton Marshes	**Habitat:** Mosaic with aquatic flora.
133	Havenbeach Marshes	**Habitat:** Grazing marsh. **Flora:** Slender spike-rush, water whorl grass, divided sedge, small pond weed, soft hornwort, brackish water crowfoot.
134	Reydon Fishing Lakes	**Habitat:** Disused gravel pits with sandy banks. **Flora:** Mossy stonecrop, Smith's pepperwort. **Protected fauna:** Grass snake, common lizard.
135	Reydon Marshes	**Habitats:** Cattle grazed pastures, drainage dykes. **Fauna:** Teal, shoveler, wigeon, shelduck, curlew, redshank.
136	Reydon Wood	**Habitat:** Ancient woodland.
137	Southwold Denes	**Habitat:** Vegetated shingle. **Flora:** Sea holly, bulbous meadow grass, sea pea.
138	St Felix School Grounds	**Habitats:** Heathland with patches of acidic grassland with gorse scrub. **Protected fauna:** Common lizard, linnet.
139	Wangford Marshes	**Habitat:** Marsh flora.
Non designated sites (sites that are not formally identified for their biodiversity value)		
140	Bartholemew's Green	**Habitats:** Ornamental gardens with flower beds, short grass, privet hedge. **Fauna:** Acer, holly, sweet chestnut, horse chestnut.
141	Blyth Road Allotments	**Habitats:** Allotments with scrub and boundary hedgerows.
142	Elliott Avenue	**Habitats:** Mown grassland and mature hedge. **Fauna:** Oak, elm, hawthorn, damson.
143	Eversley Playing Fields	**Habitat:** Village green with formal trees and shrubs.
144	North Green	**Flora:** Ash, acer, common bent, buckshorn plantain, daisy, common cat's ear, ragwort, white clover.
145	Reydon Churchyard	**Habitats:** Churchyard with mature hedgerows. **Flora:** Yew, oak, horse chestnut, oxeye daisy, germander, speedwell, ladies bedstraw, black knapweed.
146	Rissemere Lane East Allotments	**Habitats:** Allotments with mature hedges containing hawthorn, suckering elm.
147	Southwold Cemetery	**Habitat:** Cemetery with mown grass. **Flora:** Self heal, mouse-ear hawkweed, yarrow, prickly ox-tongue, dove's-foot crane's bill, mouse ear chickweed, daisy, creeping buttercup, ground ivy.
148	Southwold Common	**Habitats:** Open grassland with gorse, bramble scrub. **Flora:** Yorkshire fog, common bent, ribwort plantain, sheep's sorrel, common cat's ear. **Protected fauna:** Skylark, grass snake, slow worm, common lizard.
149	St. Edmund King and Martyr	**Habitats:** Churchyard with mown and unmown grass. **Fauna:** Birds-foot-trefoil, ladies bedstraw, mouse-ear hawkweed, yarrow, holly, yew.
150	Tibby's Green	**Habitats:** Mown grass surrounded by a beech hedge.

Rural Areas

Reference	Site	Additional information
RAMSAR http://jncc.defra.gov.uk/page-1389		
151	Broadland	**Habitats:** River valleys, open water, carr woodlands, grazing marsh, fen meadow. **Flora:** Fen orchid, floating water plantain. **Fauna:** Bewick's swan, Eurasian wigeon, gadwall, northern shoveler.
152	Broadland	**Habitats:** River valleys, open water, carr woodlands, grazing marsh, fen meadow. **Fauna:** Fen orchid, floating water plantain. **Flora:** Tundra swan, Eurasian wigeon, gadwall, northern shoveler.
153	Minsmere-Walberswick	**Habitats:** Marshland, acidic grassland, mudflats, reed beds, shingle beach. **Fauna:** Scarce shingle plants.
Site of Special Scientific Interest www.sssi.naturalengland.org.uk/Special/sssi/index.cfm		
154	Abbey Wood	**Habitat:** Ancient woodland.
155	Barnby Broads and Marshes	**Habitats:** Open water, carr woodland, fen, grazing marsh, dykes. **Flora:** White water lily, common reed, tussock sedge, bog moss, marsh arrowgrass, marsh fern, southern marsh orchid.
156	Corton Cliffs	Site of geological importance.
157	Flixton Quarry	Site of geological importance.
158	Laurel Farm Meadow	**Habitats:** Grassland surrounded by a hedge. **Flora:** Grasses, flowering herbs, orchids.
159	Minsmere-Walberswick Heaths & Marshes	**Habitats:** Shingle beach, acidic grassland. **Flora:** Scarce shingle plants.
160	Sotterley Park	**Habitat:** Ancient woodland. **Flora:** Mature trees, lichen mosses.
161	Titsal Wood, Shadingfield	**Habitat:** Ancient woodland.
Special Areas of Conservation http://jncc.defra.gov.uk/page-23		
162	Benacre to Easton Bavents Lagoons	**Habitat:** Lagoons. **Flora:** Narrow leaved eelgrass, spiral tassleweed, common reed.
163	The Broads	**Habitat:** Wetland habitats. **Protected fauna:** Ramshorn snail, Desmoulin's whorl snail, fen orchid.
164	The Broads	**Habitat:** Wetland habitats. **Protected fauna:** Ramshorn snail, Desmoulin's whorl snail, fen orchid.
165	Minsmere to Walberswick Heaths and Marshes	**Habitats:** Marshland, acidic grassland, mudflats, reed beds, shingle beach. **Fauna:** Scarce shingle plants.
Special Protection Areas http://jncc.defra.gov.uk/page-162		
166	Benacre to Easton Bavents	**Habitat:** Lagoons. **Protected fauna:** Bittern, marsh harrier, little tern.
167	Broadland	**Habitat:** Wetland habitats. **Fauna:** Northern shoveler, wigeon, gadwall, bittern,

Reference	Site	Additional information
		marsh harrier, hen harrier, Bewick's swan, whooper swan, ruff.
168	Broadland	**Habitat:** Wetland habitats. **Fauna:** Northern shoveler, wigeon, gadwall, Bewick's swan, whooper swan, ruff. **Protected fauna:** Bittern, marsh harrier, hen harrier.
169	Minsmere-Walberswick	**Habitats:** Shingle beach, acidic grassland. **Flora:** Scarce shingle plants. **Fauna:** Northern shoveler, teal, gadwall, grater white fronted goose, nightjar, pied avocet, little tern. **Protected fauna:** Bittern, marsh harrier, hen harrier.
County Wildlife Site www.suffolkbiodiversity.org/wildlife-sites.aspx		
170	All Saints Churchyard	**Habitat:** Species rich grassland.
171	All Saints Rectory Meadows	**Habitat:** Species rich grassland.
172	Ashley Wood	**Habitat:** Ancient woodland.
173	Benacre Woods	**Habitat:** Woodland.
174	Blundeston Prison Lake and Woods	**Habitat:** Wetland mosaic.
175	Blyford Wood	**Habitat:** Ancient woodland and green.
176	Brier Wood	**Habitat:** Ancient woodland.
177	Bryant's Meadow	**Habitat: S**pecies rich grassland.
178	Coombe's Wood	**Habitat:** Ancient woodland.
179	Corton Woods	**Protected habitat:** Pond. **Other habitat:** Woodland. **Protected fauna:** Song thrush, bullfinch, spotted flycatcher.
180	Ellough Airfield	**Fauna:** Boulder clay flora.
181	Ellough Churchyard	**Habitat:** Species rich grassland. **Fauna:** Reptiles.
182	Ellough Grove North	**Habitat:** Ancient woodland.
183	Ellough Grove South	**Habitat:** Ancient woodland.
184	Flixton Decoy	**Protected habitats:** Wet woodlands, eutrophic standing waters. **Other habitat:** Dry woodlands. **Flora:** Ash, oak, sycamore, beech, Scots pine, holly, elder, hazel, guilder rose, rhododendron, gypsy wort, water chickweed, hemlock water dropwort, yellow water-lily, white water-lily, angelica, water pepper, marsh woundwart, skullcap, marsh bedstraw, hemp agrimony, primrose, wood avens, wood sorrel, foxglove, yellow pimpernel, enchanter's nightshade, sanicle. **Protected species:** Grass snake, song thrush, grass snake, common toad.
185	Flixton Decoy Meadows	**Habitat:** Grassland mosaic.
186	Flixton Pits	**Fauna:** Invertebrates.
187	Frostenden Spring	**Habitat:** Woodland.
188	Furze Common	**Habitat:** Wet grassland.
189	Godfrey's Common	**Habitat:** Species-rich grassland.
190	Gorse Thick	**Habitat:** Ancient woodland.
191	Great and Briery Woods	**Habitat:** Ancient woodland.
192	Great Wood	**Habitat:** Ancient woodland.

Reference	Site	Additional information
193	Heavyland Wood	**Habitat:** Ancient woodland.
194	Henham Marshes	**Habitat:** Wet species rich grassland.
195	Herringfleet Hills	**Habitat:** Acid grassland. **Fauna:** Reptiles.
196	Herringfleet Marshes	**Habitat:** Wetland flora.
197	Holton Hall Park	**Habitats:** Historic parkland, woodland.
198	Holton Sandpits	**Habitat:** Habitat mosaic.
199	Hundred River and Associated Dykes	**Fauna:** Aquatic and wetland flora.
200	Hurricane Wood	**Habitat:** Ancient woodland. **Protected fauna:** Otter.
201	Ilketshall St Margaret Churchyard	**Habitat:** Species rich grassland.
202	John Wet Meadow	**Habitat:** Wet species rich grassland.
203	Kitchen Wood	**Habitat:** Ancient woodland.
204	Likely Wood	**Habitat: A**ncient woodland.
205	Limbourne Common Dykes	**Habitat:** Grazing marsh dykes.
206	Long Meadow	**Habitat:** Species rich grassland.
207	Lound Lakes	**Habitats:** Acid and lowland grassland, woodland, open water, rush pasture, fen meadow. **Protected fauna:** Grass snake, bats. **Other fauna:** Hobby.
208	The Mardle	**Habitat:** Habitat mosaic.
209	Marsh Lane Farm Marsh	**Habitat:** Wet species rich grassland.
210	Mill Common	**Habitat:** Species rich grassland.
211	New Dyke and Shipmeadow Marshes	**Habitat:** Grazing marsh dykes.
212	Mutford Big Wood	**Habitat:** Ancient woodland.
213	New House Farm Meadow	**Habitat:** Species rich grassland.
214	North Cove Alder Carrs	**Habitat:** Wet woodland.
215	Old Henham Brickyard and Blomefield Wood	**Habitats:** Woodland, fen vegetation.
216	Outney Common	**Protected habitat:** Acid grassland. **Other habitat:** Marshy meadows. **Flora:** Arrowhead, lesser spearwort, fine leaved water dropwort, meadow rue. **Protected fauna:** Linnet and skylark, grass snake and common lizard. **Other fauna:** Cattle, rabbits.
217	Rectory Meadow Ponds	**Flora:** Aquatic flora. **Protected fauna:** Great crested newt.
218	Roadside nature reserve 88: Flixton Road, North of St. Margaret South Elmham	**Flora:** Sulphur clover.
219	Roadside nature reserve 142: West of the A12 Wangford by-pass (on the northern edge of the quarry)	**Flora:** Orpine.
220	Roadside nature reserve 173: B1062 between Mettingham and Shipmeadow	**Flora:** Chalk flora.
221	Rumburgh Wood	**Habitat:** Ancient woodland.
222	Savage Wood	**Habitat:** Ancient woodland.
223	Somerleyton and Blundeston Marshes	**Habitat:** Grazing marsh dykes.
224	Southwell Lane Wood	**Habitat:** Ancient woodland.
225	Sparrow's Thicks	**Habitats:** Woodland, grassland.
226	Spring Farm Meadow	**Habitat:** Species rich grassland.
227	St Lawrence Green Pond	**Flora:** Aquatic flora.

Reference	Site	Additional information
		Fauna: Reptiles.
228	St Peters Churchyard	**Habitat:** Species rich grassland.
229	Stoven Wood	**Habitat:** Ancient woodland.
230	Timber Shrubs	**Habitat:** Woodland.
231	Tuttles Wood	**Habitat:** Ancient woodland.
232	Valley Swamp, Fritton Woods	**Flora:** Marsh flora.
233	Walberswick Saltmarsh	**Habitat:** Saltmarsh, dunes, vegetated shingle, acidic grassland, **Flora:** Scarce shingle plants.
234	River Waveney	**Habitat:** Reedbed. **Protected fauna:** Depressed river mussel, Desmoulin's whorl snail.
235	Weston Crossing Meadow	**Habitat:** Species rich grassland.
236	Weston Crossing Railway Line	**Habitat:** Grassland scrub mosaic.
237	Whitehouse Farm Meadow	**Habitat:** Wet species rich grassland.
238	Willingham Wood	**Habitat:** Ancient woodland.
239	Wrentham Cemetery	**Habitat:** Acid grassland.
240	Wrentham Great Wood	**Habitat:** Ancient woodland.
Local Nature Reserve	www.lnr.naturalengland.org.uk/Special/lnr/lnr_search.asp	
241	Corton Woods	**Protected habitat:** Pond. **Other habitat:** Secondary woodland. **Flora:** Hart's tongue fern, gypsywort, water mint, water plantain, ragged robin, water crowfoot, spurge-laurel, yellow pimpernel, wood sorrel, wood avens, pendulous sedge, ox-eye daisy, primrose, common spotted orchid, foxglove, broad-leaved helleborine, sanicle, common figwort, three-veined sandwort, enchanter's nightshade, elder, holm oak, ash, pedunculate oak, blackthorn, beech, *Russula lilacea (fungus).* **Protected fauna:** Song thrush, bullfinch, spotted flycatcher.
242	Bath Hills Nature Reserve	**Habitat:** Steep sided south-facing valley. **Flora:** Wild flowers.
Ancient Woodland	www.forestry.gov.uk/fr/INFD-5W2G8Q	
243	Abbey Wood	**Habitats:** Ancient and semi-natural woodland.
244	Ashley Wood	**Habitat:** Ancient replanted woodland.
245	Ashley Wood	**Habitats:** Ancient and semi-natural woodland.
246	Bloomfield Wood	**Habitat:** Ancient replanted woodland.
247	Blyford Wood	**Habitats:** Ancient and semi-natural woodland.
248	Brier Wood	**Habitats:** Ancient and semi-natural woodland.
249	Coombe's Wood Next to Halesworth Lodge	**Habitat:** Ancient replanted woodland.
250	Easton Wood	**Habitat:** Ancient and semi-natural woodland.
251	Frostenden Spring	**Habitat:** Ancient replanted woodland.
252	Frostenden Spring	**Habitats:** Ancient and semi-natural woodland.
253	Gorse Thick/Manor Thick	**Habitats:** Ancient and semi-natural woodland.
254	Gorse Thick/Manor Thick	**Habitats:** Ancient and semi-natural woodland.
255	Great/Briery/Farm Woods	**Habitats:** Ancient and semi-natural woodland.
256	Great/Briery/Farm Woods	**Habitats:** Ancient and semi-natural woodland.
257	Great/Briery/Farm Woods	**Habitats:** Ancient replanted woodland.
258	Great Wood	**Habitats:** ancient and semi-natural woodland.
259	Great Wood	**Habitats:** Ancient and semi-natural woodland.

Reference	Site	Additional information
260	Great Wood	**Habitats:** Ancient replanted woodland.
261	Great Wood East of Old Rectory Off Flixton Road	**Habitats:** Ancient and semi-natural woodland.
262	Heavyland Wood	**Habitats:** Ancient and semi-natural woodland.
263	Holly Grove	**Habitats:** Ancient and semi-natural woodland.
264	Likely Wood, between Sotterley Park and Willingham	**Habitat:** Ancient replanted woodland.
265	Mutford Big Wood	**Habitat:** Ancient replanted woodland.
266	Mutford Big Wood	**Habitats:** Ancient and semi-natural woodland.
267	Mutford Little Wood	**Habitats:** Ancient and semi-natural woodland.
268	Woodland at Mutford Wood Lane	**Habitats:** Ancient and semi-natural woodland.
269	Packway Wood between Grange Road and Abbey Road	**Habitats:** Ancient and semi-natural woodland.
270	Reydon Wood	**Habitats:** Ancient and semi-natural woodland.
271	Reydon Wood	**Habitat:** Ancient replanted woodland.
272	Savage Wood, East of the B1127	**Habitat:** Ancient replanted woodland.
273	Scarl's Grove, North of Sotterley Wood	**Habitats:** Ancient and semi-natural woodland.
274	Scarlsgrove Belt, North of Sotterley Wood	**Habitat:** Ancient replanted woodland.
275	Part of Sheppard's Wood at Sotterley Park	**Habitat:** Ancient replanted woodland.
276	Sotterley Wood	**Habitats:** Ancient and semi-natural woodland.
277	Part of Sotterley Wood	**Habitat:** Ancient replanted woodland.
278	Part of Sotterley Wood	**Habitats:** Ancient and semi-natural woodland.
279	Part of Sotterley Wood	**Habitat:** Ancient replanted woodland.
280	Part of Sotterley Wood	**Habitat:** Ancient replanted woodland.
281	Southwell Lane Wood	**Habitat:** Ancient replanted woodland.
282	Sparrows Thick	**Habitats:** Ancient and semi-natural woodland.
283	Spring Wood	**Habitats:** Ancient and semi-natural woodland.
284	Stoven Wood	**Habitat:** Ancient replanted woodland.
285	Titsal Wood	**Habitats:** Ancient and semi-natural woodland.
286	Tuttles Wood	**Habitat:** Ancient replanted woodland.
287	Tuttles Wood	**Habitat:** Ancient replanted woodland.
288	Tuttles Wood	**Habitats:** Ancient and semi-natural woodland.
289	Willingham Wood	**Habitats:** Ancient and semi-natural woodland.
290	Wrentham Great Wood	**Habitats:** Ancient and semi-natural woodland.
291	Wrentham Great Wood	**Habitats:** Ancient and semi-natural woodland.
292	Wrentham Great Wood	**Habitat:** Ancient replanted woodland.
293	Wrentham Great Wood	**Habitat:** Ancient replanted woodland.
294	Wrentham Great Wood	**Habitat:** Ancient replanted woodland.
Roadside Nature Reserves www.suffolk.gov.uk/environment-and-transport/environment-waste-and-recycling/roadside-nature-reserves/		
295	82: Junction between Blyford Lane and the B1123, Blyford	**Protected flora:** Rare fungus.
296	88: Flixton Road, North of St. Margaret South Elmham	**Flora:** Sulphur clover.
297	142: West of the A12 Wangford by-pass (on the northern edge of the quarry)	**Flora:** Orpine.
298	166: B1123 West of Blyford	**Protected flora:** Rare Fungus.
299	173: B1062 between Mettingham and Shipmeadow	**Flora:** Chalk flora, orchids.
300	191: St. Cross Road, Homersfield	**Flora:** Rare Fungi.

Designated sites with biodiversity value

Figure 2.1: Ancient Woodland (Woodland planted before the year 1600)

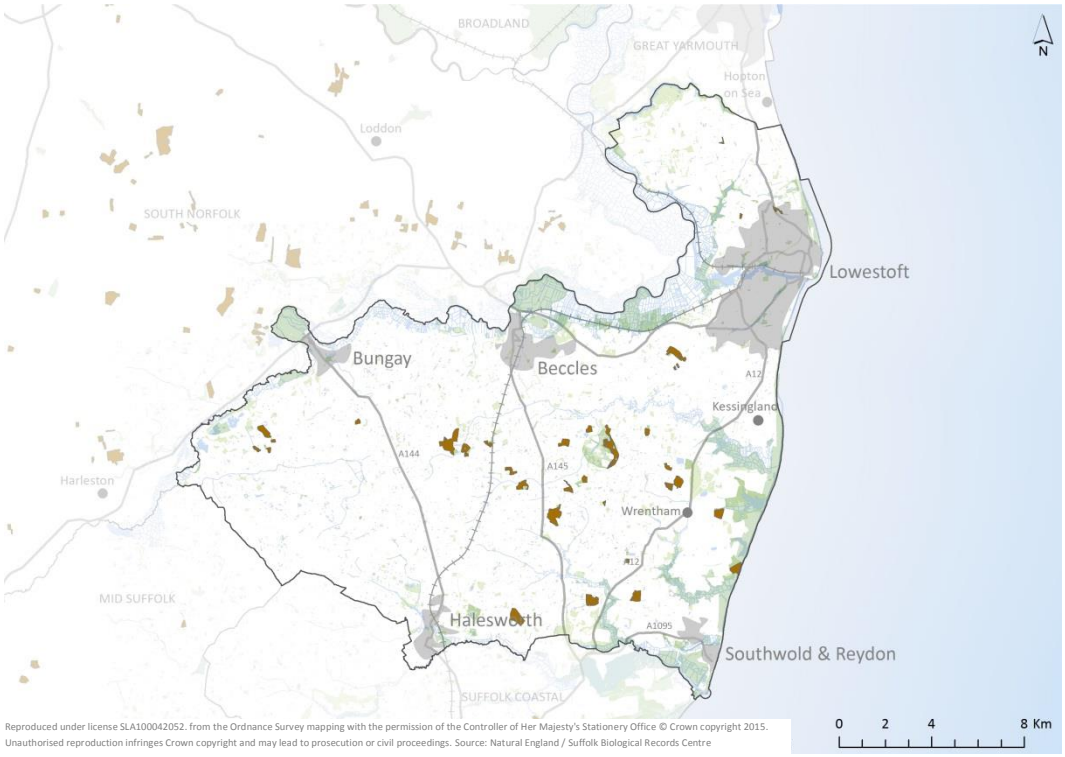


Figure 2.2: County Wildlife Sites (Sites designated at the county level for their high biodiversity value)

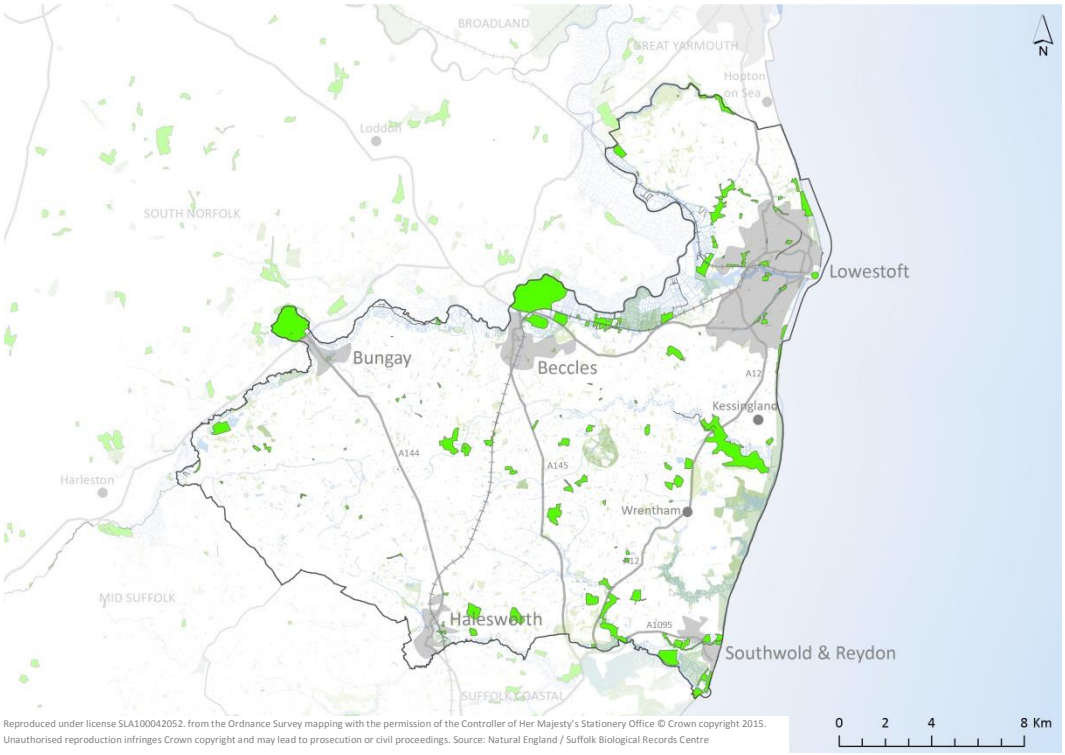


Figure 2.3: Local Nature Reserve (Protected for their biodiversity value)

Figure 2.4: RAMSAR Sites (sites protected for their wetland bird habitats)

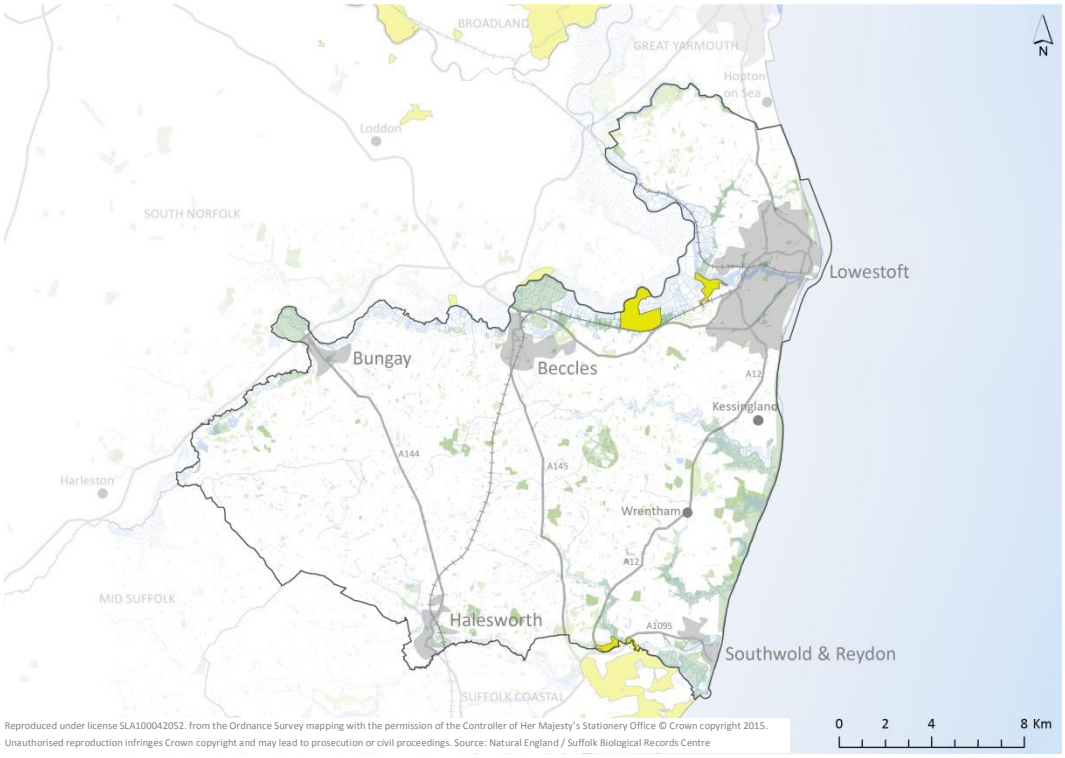


Figure 2.5: Roadside Nature Reserves (Roadside verges containing endangered species or habitats)

Figure 2.6: Site of Special Scientific Interest (Sites protected for their plant, animal or geological value)

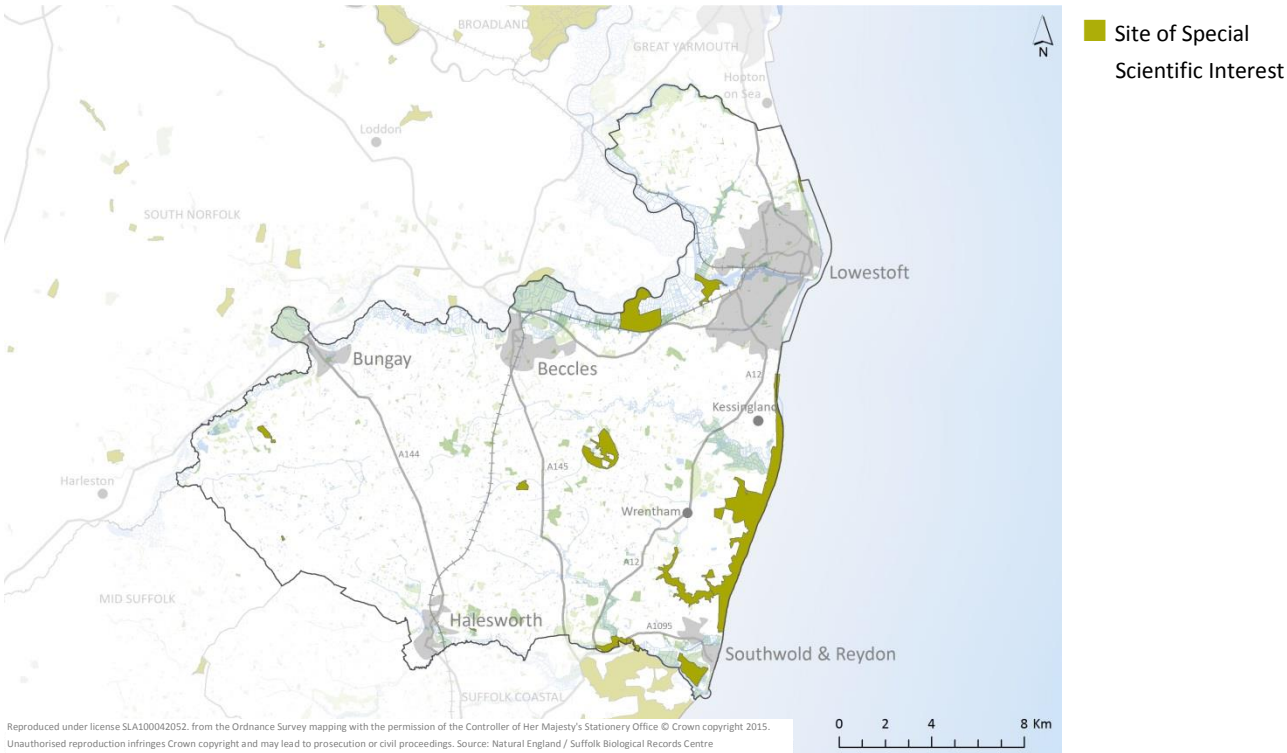


Figure 2.7: Special Areas of Conservation (Protected for their wildlife habitat value)

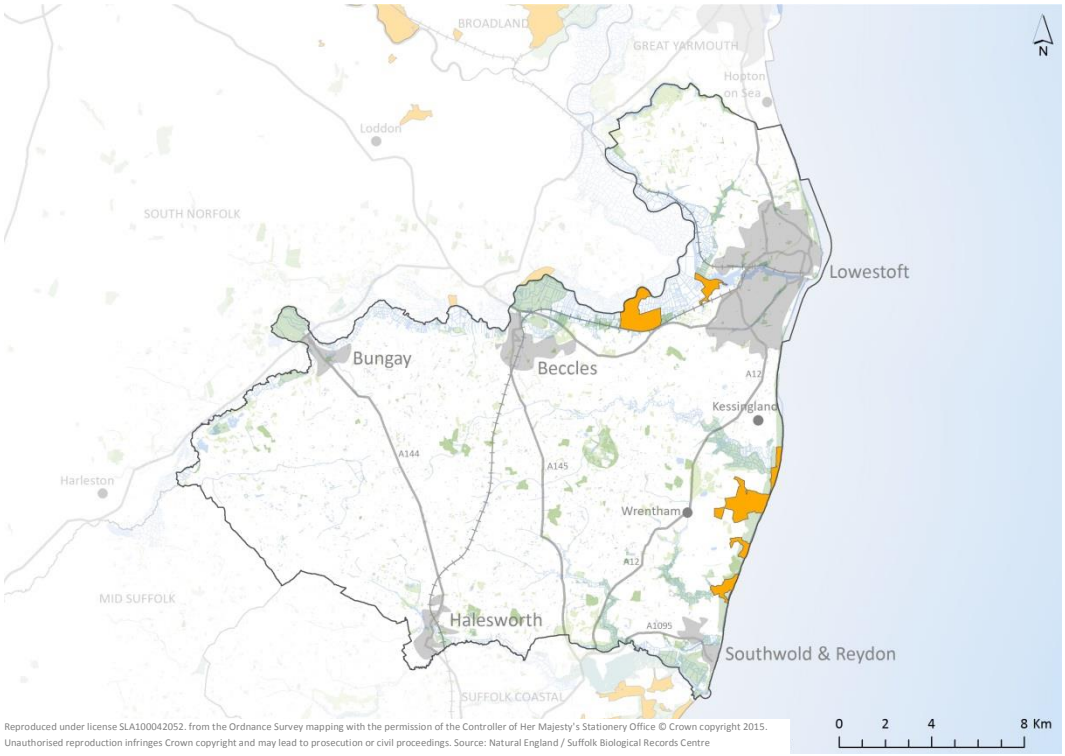
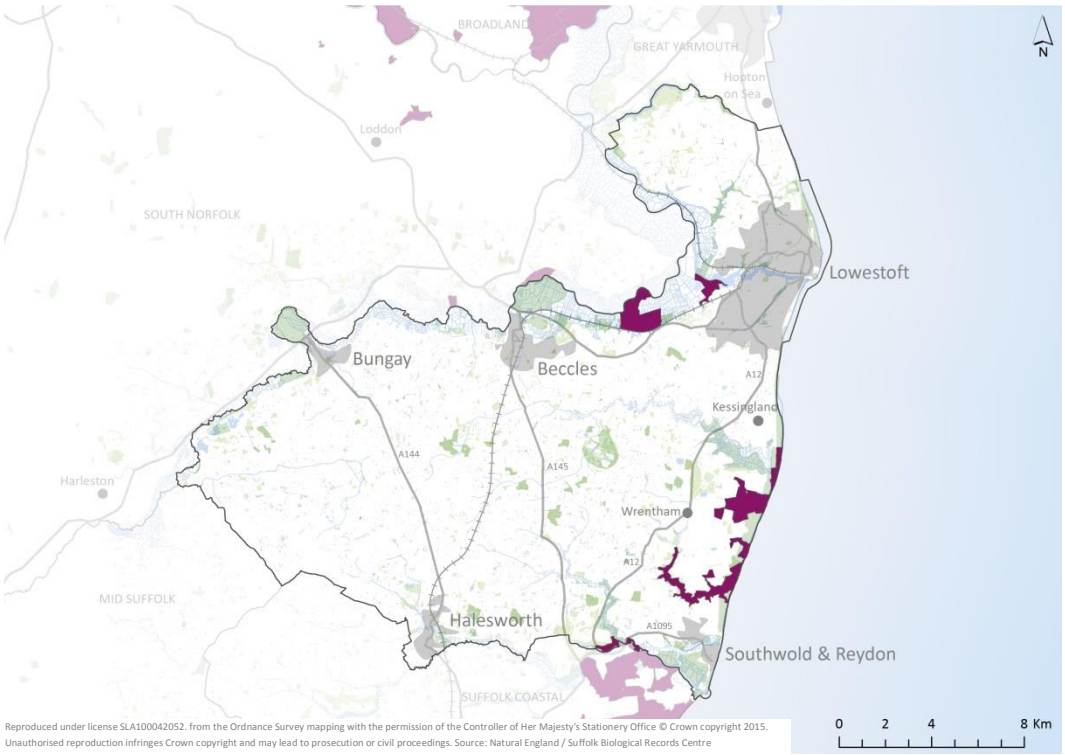


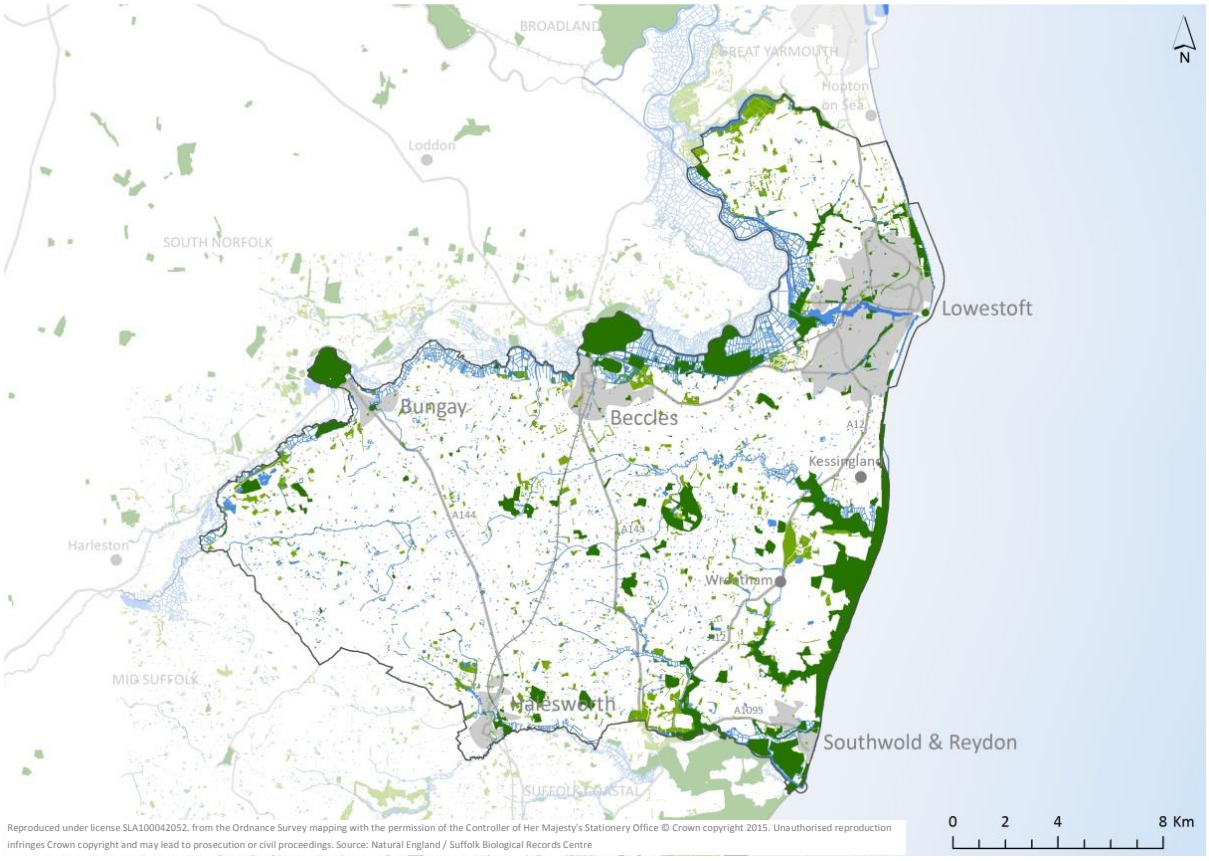
Figure 2.8: Special Protection Areas (Protected for their habitat value for birds)



Biodiversity sites in Waveney District

Waveney District contains 300 sites of biodiversity value that support a wide range of different species and habitats (Figure 2.9). A majority of these are designated as biodiversity sites to provide protection, however, there will be many more areas of the District providing habitat for flora and fauna which are not represented (eg. fields, hedgerows, land bordering waterways). Areas of biodiversity value are often part of a wider network of sites that extend beyond the District boundaries and form a part of a larger, more extensive regional green infrastructure network.

Figure 2.9: Designated and non-designated sites with biodiversity value in Waveney



Wildlife corridors and ecological networks enable species to move between similar habitats. This is important for dispersal and migration so that isolated pockets of small, in-bred populations do not develop. For free movement to occur the links between separate habitats should ideally be of the same habitat type.

In Waveney wildlife corridors are primarily associated with bodies of water (Figure 2.10). Wildlife travel north and south along the coast accessing river valleys such as the Blyth and Hundred, which extend inland, and large habitat areas north (Breydon Water) and south (Minsmere) of the District. A number of protected sites of European importance are located along the coast including Benacre to Easton Bavents Lagoons SAC and Minsmere to Walberswick Heaths and Marshes SAC.

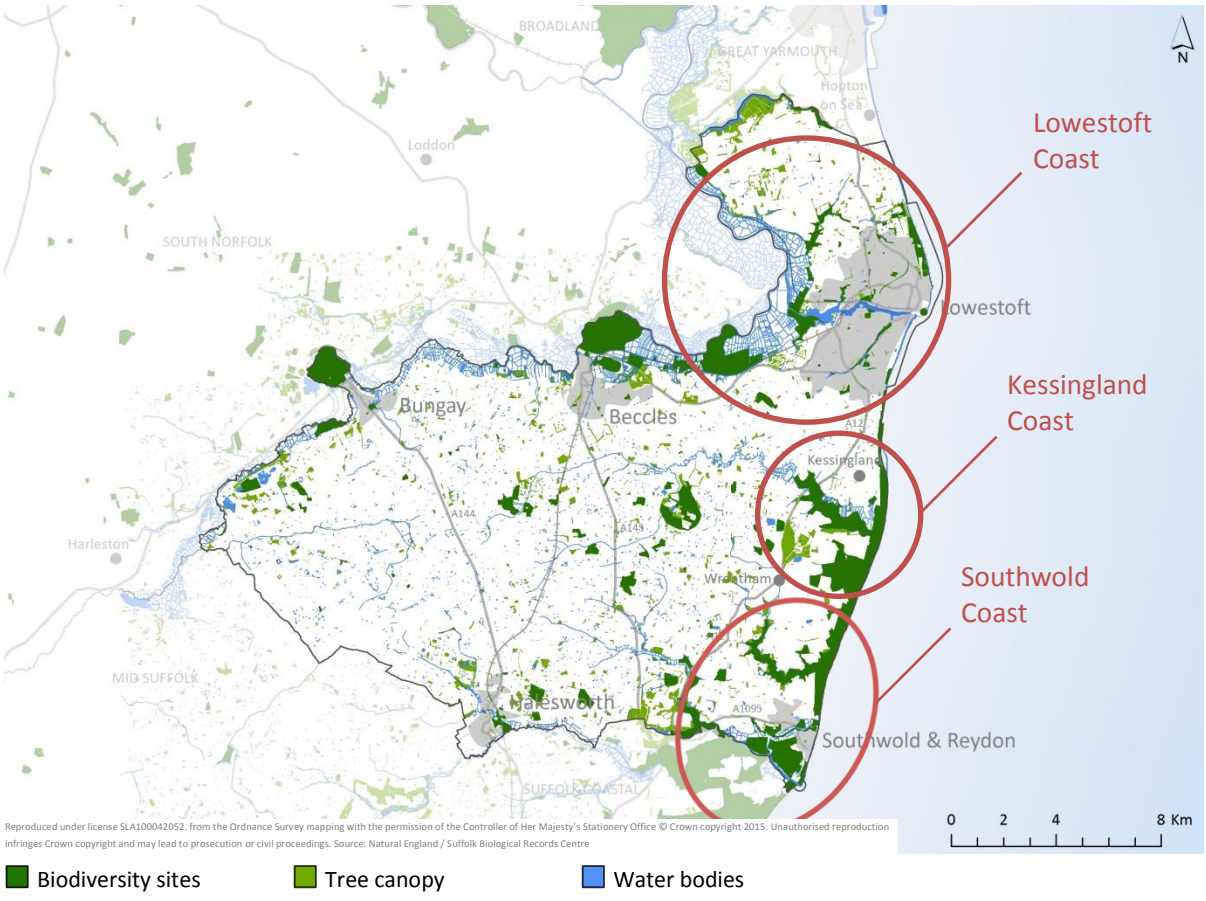
In the north of the District the Waveney Valley forms part of the Broads and is an important part of the regional ecological network. The water based corridor supports wildlife movement across Waveney and into habitats located in South Norfolk and Mid Suffolk. Along the Waveney Valley are habitats of European Importance such as the Sprat's Water and Marshes SAC/SPA west of Lowestoft and the Broadland SPA. The corridor is supported with other locally important areas for biodiversity including Beccles Marshes CWS and Outney Common CWS. West of Lowestoft the Waveney Valley extends northwards enabling wildlife to move towards Breydon Water and other areas near the coast.

Figure 2.10: Wildlife corridors in the District

In the south of the District the Blyth Valley supports a wetland based habitat that extends inland from Southwold & Reydon to Halesworth and beyond. Connected to the north is the Wang Valley enabling species to move northward and towards habitats that are associated with the Hundred River and Kessingland Levels. The Hundred River Valley links to the coast south of Kessingland. Areas of woodland, hedgerows and small water bodies such as streams, creeks and ponds allow species to move into the rural areas of the District.

Biodiversity near the coast

Figure 2.11: Sites of biodiversity value near the coast



Lowestoft Coast

Lowestoft is the largest town in the District and is Located on the coast. In the centre of Lowestoft is Lake Lothing which extends from the North Sea to the Broads and Waveney Valley. This provides a water based wildlife corridor connecting inland habitats to the coast. Along its length wetland habitat is found at Leathes Ham providing a link to wildlife corridors that extend northwards through the urban area.

In North Lowestoft vegetated shingle at Gunton Warren supports nationally scarce sea pea, a species that is susceptible to trampling by walkers and visitors. The Maritime Cliffs and Slopes, Vegetated Shingle and Coastal Sand Dunes of Gunton Warren are recognised as having high ecological importance and these habitats are complemented by adjacent heathland and woodlands. This mosaic of habitats supports a wide range of invertebrate species and migrant species. Reptiles including adder and common lizard are present on the site.

Gunton Warren and Corton Woods are complemented by other sites located to the south including the North Denes and the Net Drying Area. Undesignated open spaces such as these which lie in close

proximity to the coast have the potential to act as stepping stones to support wildlife movement through the urban area to other habitats inland.

Artificial structures along the coast such as the harbour walls and Ness Point are of high value for colonies of sea birds. Purple sandpiper and the breeding colony of kittiwake are of particular note. South of Lake Lothing wildlife corridors extend from Kirkley Ham while at the western end of Lake Lothing Oulton Broad has connections to habitats of European Significance such as Sprats Water and Marshes SPA and SAC, the Broads SAC and the Broadland SPA.

On the shores of Lake Lothing opposite Leathes Ham is the Brooke Yachts and Jeld Wen Mosaic CWS. The site has a natural gradient of habitats from mudflats (BAP habitat) through grassland to scrub which is an ecologically scare resource. The site supports a bird community that includes summer migrants and breeding linnet. The site also contains a colony of common lizard.

Kessingland Coast

The Pakefield Cliffs and Pakefield Beach are located south of Lowestoft and are both designated as CWSs. They contain BAP habitats including Maritime Cliffs and Slopes and Vegetated Shingle and support similar plant species as Gunton Warren to the north. The coastal area extends southwards into the Pakefield to Easton Bavents SSSI. This site is designated for its geological attributes, however, it is also nationally important for its vegetated shingle features, saline lagoons, flood plain fens, an assemblage of nationally rare and nationally scarce vascular plants, scarce breeding birds and wintering bitterns.

Semi-natural coastal habitat adjacent to the SSSI has a complementary role in buffering and improving linkages such as the woodland and scrub behind Kessingland Cliffs on the north side of the village. The Hundred River is located south of the village and contains an important network of aquatic habitats including grazing marshes and the dykes associated with the Kessingland Levels.

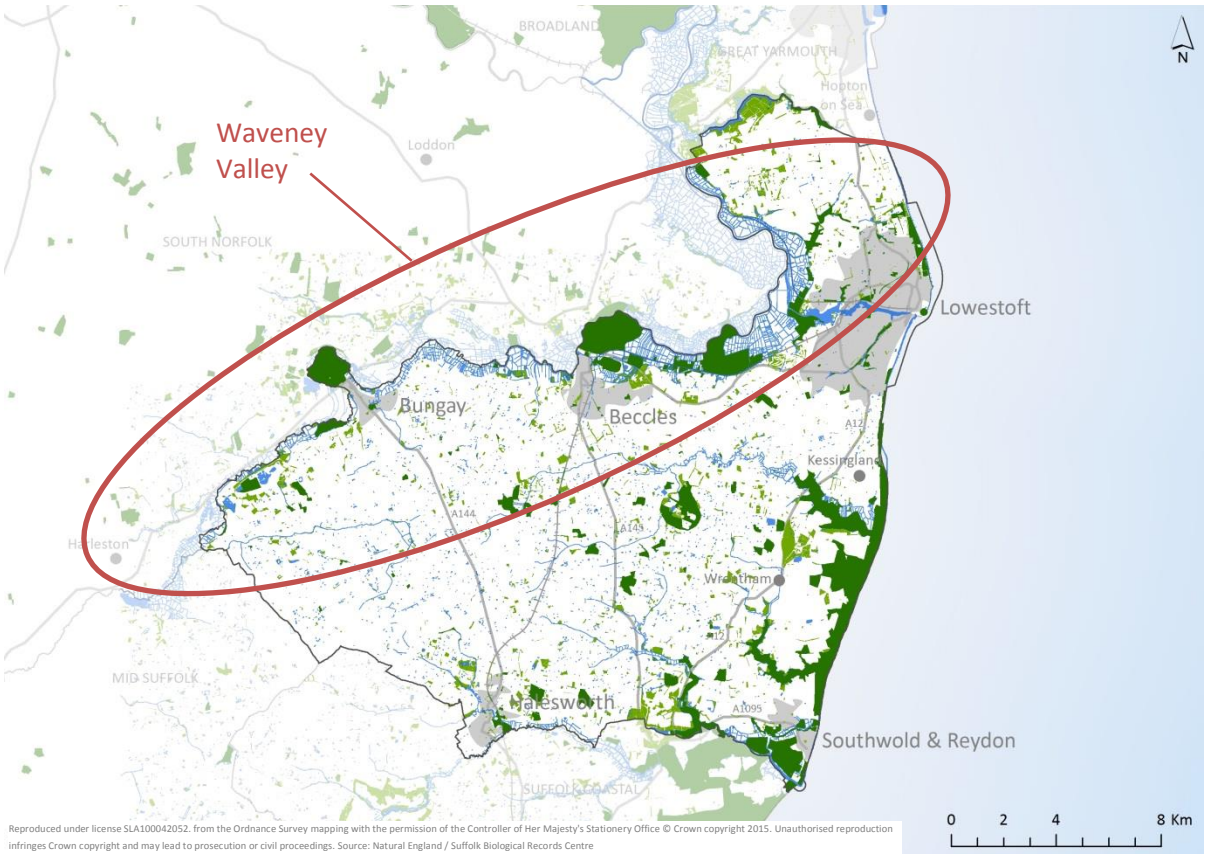
Southwold Coast

The Pakefield to Easton Bavents SSSI extends from South Lowestoft to Southwold and further south to Minsmere-Walberswick Heaths and Marshes SSSI. This stretch of coast provides a mosaic of wildlife habitats including mudflats, shingle beach, reedbeds, heathland and grazing marsh. The site is of European importance and is designated as an SPA. The Minsmere-Walberswick Heaths are also designated as an SAC. The coastal areas around Southwold are complemented by a wider network of habitats that enable wildlife to move inland including Walberswick Saltmarsh CWS and Reydon Marshes CWS. Much of this area lies within the Suffolk Coast and Heaths Area of Outstanding Natural Beauty.

There are also numerous sites of biodiversity value along the River Blyth reaching inland towards Halesworth. The area directly to the south of the District is also rich in sites of biodiversity value, a trend which continues inland until west of Halesworth.

Biodiversity along the Waveney Valley

Figure 2.12: Sites of biodiversity value along the Waveney Valley



Water based habitats have an important role in the wider ecological network which is intrinsically linked to green infrastructure. The River Waveney is fringed along much of its length by reeds and it provides nesting and feeding opportunities for wetland birds such as sedge and reed warblers. Kingfishers are also present along the river. In winter the reeds provide shelter for overwintering wildfowl and waders. Flora along the banks provides protection from backwash created by boat traffic and filtering out pollutants in the water. Otter and water vole are found along the river and within the connected wetland habitats. Other species found on the river include the depressed river mussel and Desmoulin's whorl snail which are both scarce and listed as BAP species.

In the east the Waveney Valley abuts Lowestoft's western urban fringe and the network of semi-natural and ancient woodland sites enable wildlife to move across the open countryside. Through Lowestoft the River Waveney is connected to the North Sea by Lake Lothing. To the west along the Waveney Valley are the Broadland SPA and The Broads SAC. These areas are protected for their habitats and birds species that are of European importance. The network of drainage dykes in the valley creates an interconnected network of habitats that supports a variety of flora and fauna. These are also a defining feature within the landscape.

Near Beccles the Beccles Marshes CWS consists of low lying grazing marsh on the south side of the river while to the north are fragments of wet woodland forming the North Cove Alder Carr CWS. These provide linkages between wildlife areas near Beccles and ecologically important areas to the east such as Barnby Road and Marshes SSSI. Further west along the River Waveney from Beccles are County Wildlife Sites near Geldeston and Shipmeadow.

Near Bungay the River Waveney lies to the north of the town where the defining habitat area is Outney Common CWS. Providing a mosaic of habitats including wet meadows and acid grassland the area supports a variety of insects and birds. A network of waterways supports an array of aquatic flora and animals such as otter. Although no other habitats are designated near Bungay semi-natural areas such as Stow Fen and Broad Water are important parts of the ecological network.

Many of these sites are of value to birdlife but also contain water borne species, some of which are regionally and nationally rare. The River Waveney continues northwards along the western flank of Lowestoft and includes sites of value at Oulton Marsh and Dykes and Dairy Farm and Camps Heath Marshes.

To the north lie further sites at Flixton Decoy and surrounding the former Blundeston Prison site. As with the coastal area to the east the River Waveney is of value partly because of its links to sites outside of the District. This trend of high biodiversity value continues to the north of the River Waveney into the neighbouring Districts of South Norfolk and Great Yarmouth. The River Waveney flows north to connect with the Broads and Breydon Water, both of which are areas of considerable biodiversity value.

River Waveney Catchment

Waterways are an important part of the green infrastructure network. This is particularly evident on the maps where significant areas of biodiversity importance are closely associated with wetland areas such as the Waveney Valley. Where the quality of water environments can be improved this will have a positive influence on the nearby green infrastructure. The 'Broadland Rivers Management Catchment Plan' (2014) produced by the Environment Agency sets out an approach to improve the quality of river systems and their catchments. Key issues identified in the plan to be addressed include:

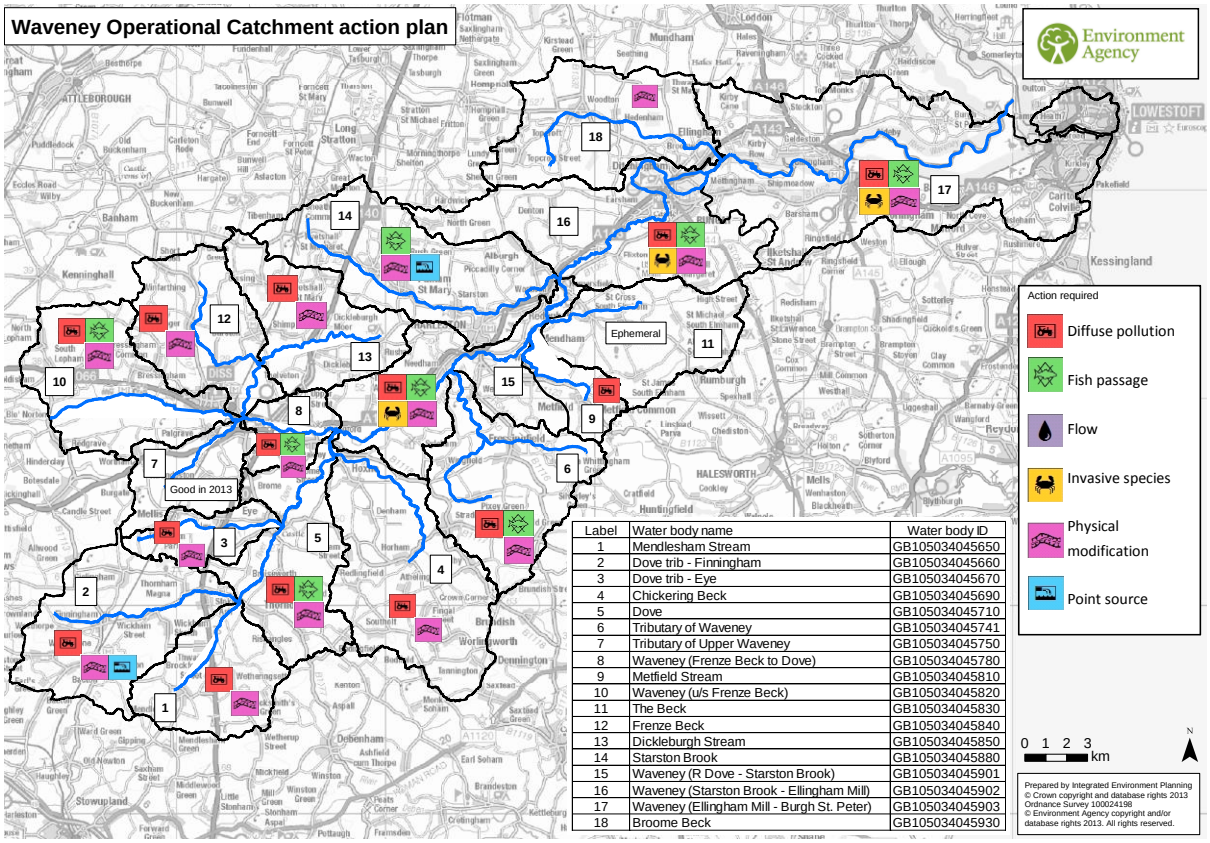
- Improve modified physical habitats
    - Removal or of barriers to fish migration
    - Improvements to the condition of channel/bed and/or banks/shoreline
    - Vegetation improvement
- Managing pollution from waste water
    - Mitigate/remediate pollution impacts where they meet the environment
- Manage pollution from towns, cities and transport
    - Control pollution into the water environment
- Manage invasive non-native species

- Early detection, monitoring and response to reduce risk of establishment
- Improving awareness and understanding
- Mitigation, control and eradication

- Manage pollution from rural area
  - Reduce pollution at the source.

The Environment Agency has produced an action plan for the Waveney catchment (Figure 2.13).

Figure 2.13: Waveney Operational Catchment Action Plan

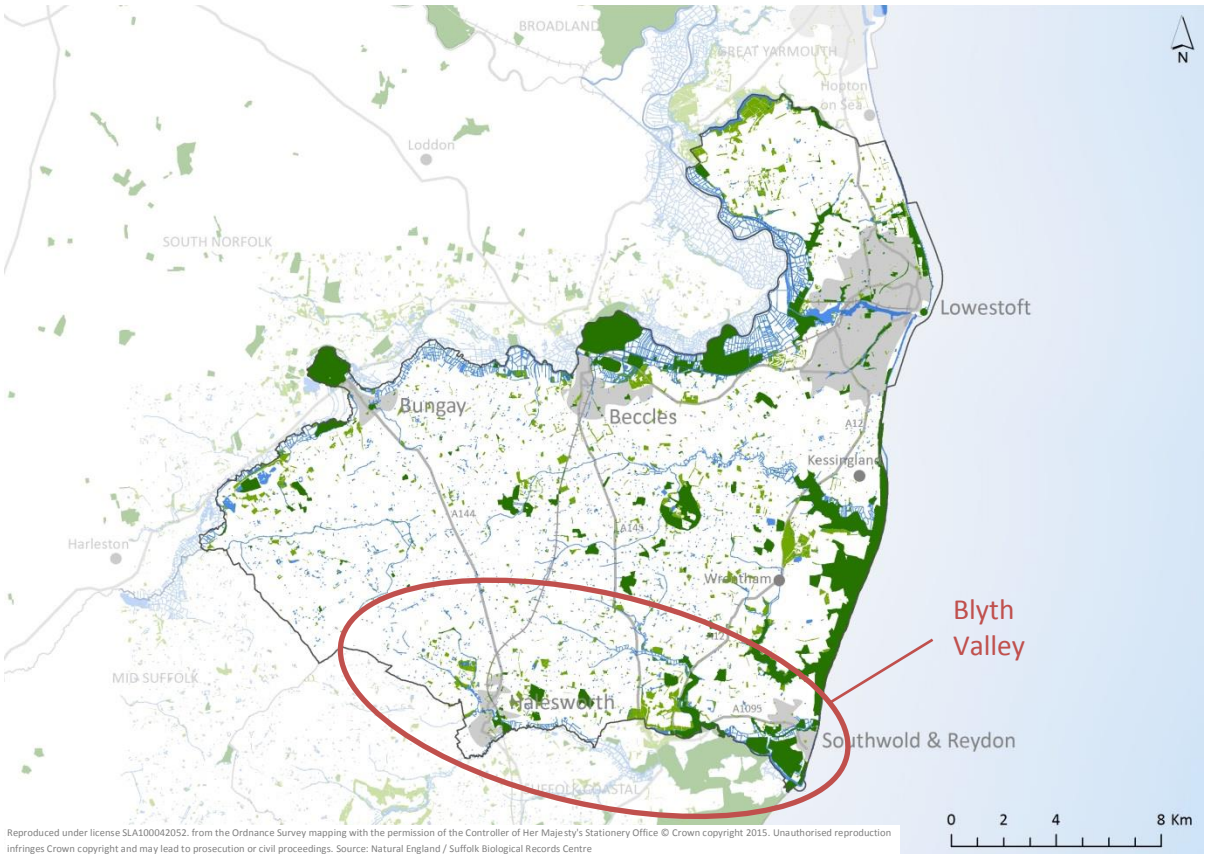


Label	Water body name	Water body ID
1	Mendlesham Stream	GB105034045650
2	Dove trib - Finningham	GB105034045660
3	Dove trib - Eye	GB105034045670
4	Chickering Beck	GB105034045690
5	Dove	GB105034045710
6	Tributary of Waveney	GB105034045741
7	Tributary of Upper Waveney	GB105034045750
8	Waveney (Frenze Beck to Dove)	GB105034045780
9	Metfield Stream	GB105034045810
10	Waveney (u/s Frenze Beck)	GB105034045820
11	The Beck	GB105034045830
12	Frenze Beck	GB105034045840
13	Dickleburgh Stream	GB105034045850
14	Starston Brook	GB105034045880
15	Waveney (R Dove - Starston Brook)	GB105034045901
16	Waveney (Starston Brook - Ellingham Mill)	GB105034045902
17	Waveney (Ellingham Mill - Burgh St. Peter)	GB105034045903
18	Broome Beck	GB105034045930

Source: Environment Agency

Biodiversity along the Blyth Valley

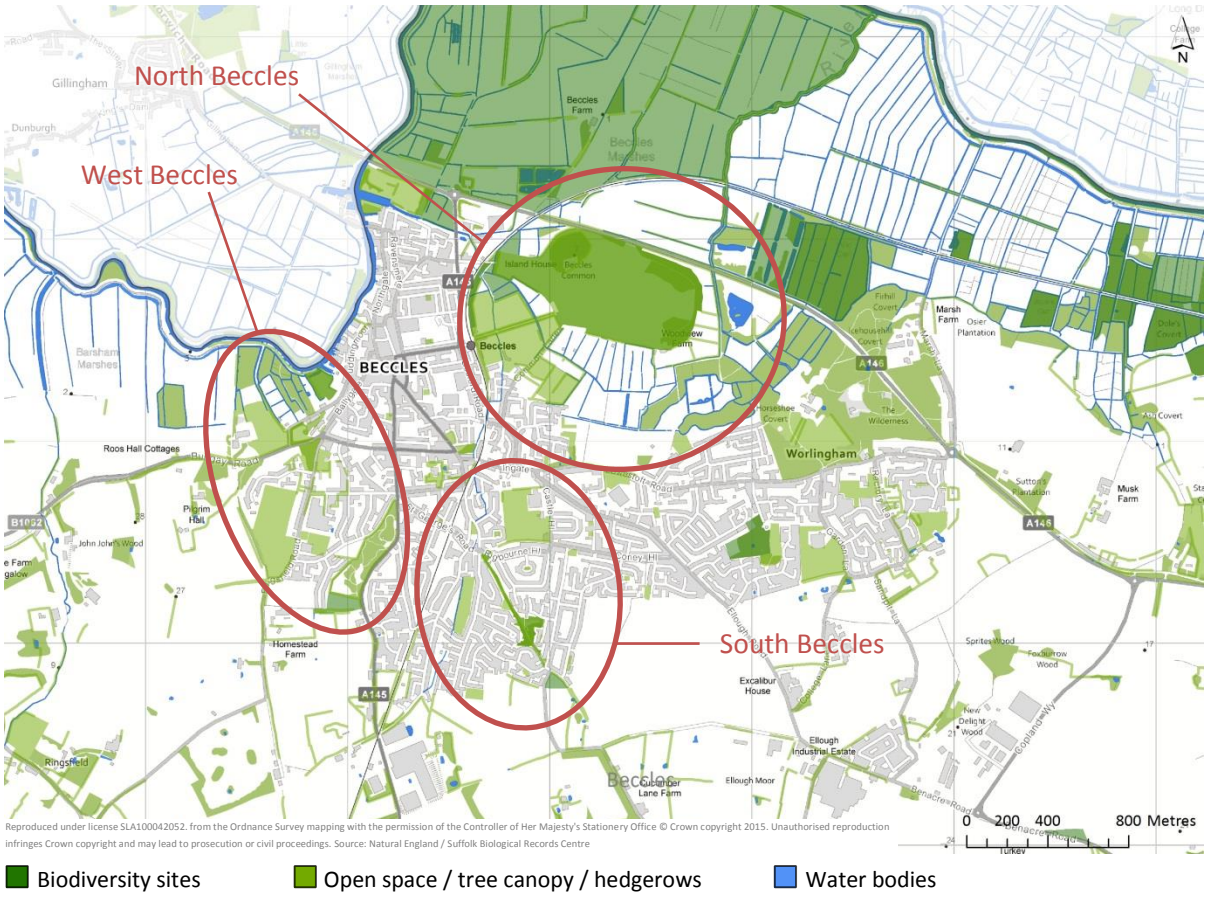
Figure 2.14: Sites of biodiversity value along the Blyth Valley



To the south of Halesworth is the River Blyth. The river has no wildlife designation, however, the river, its tributaries and the associated wetland habitats are highly important for biodiversity, supporting many scarce species. The Blyth Valley extends eastward towards Southwold providing a habitat corridor that connects with the coast and protected wildlife habitats along the coast such as the Minsmere to Walberswick Heaths and Marshes. The Suffolk Coastal Green Infrastructure Strategy (2011) identifies the potential to extent the network of accessible natural green space westwards along the Blyth River Valley towards Walpole.

Biodiversity in the Beccles area

Figure 2.15: Sites of biodiversity value in the Beccles area



South Beccles

Rigbourne Hill Lane is situated in the south of Beccles and runs through a residential area to the southern edge of the town. A sunken path with mature hazel and oak and trees and lower level ground cover which is important for nesting birds and invertebrates. Rigbourne Hill Lane is an important wildlife corridor through the town and also provides public access to an area of nature. The wildlife connections extend south to Cucumber Lane and Oak Lane which opens up to the countryside. This area has the potential to improve wildlife connections and value as a green corridor for the public as the proposed Beccles Southern Relief Road (which includes provisions for planting and landscaping to support wildlife) links the employment area at Beccles Business Park in Ellough to Cucumber Lane and the A145 to the west.

Halfway along Rigbourne Hill Lane to the east is Bramley Rise. This is a densely wooded area linked to the Rigbourne Hill Lane green corridor with a grassed amenity green space on its northern boundary. A number of well worn footpaths through the site show that it is access by members of the public. Similar tree species to Rigbourne Hill Lane are found in the wood along with crab apple and hawthorn. The area provides habitat for butterflies among other insects and for birds such as long tailed tits.

West Beccles

Waveney Meadow lies on the banks of the River Waveney to the west of the town. The site is fringed with mature trees such as black poplar, alder, willow, oak, alder, ash, yew and blackthorn. The western part of the site provides amenity value for the local community while the southern part of the site is relatively unmanaged. The floristic character of the unmanaged area changes from grassland to more to a floral mosaic as the site gets closer to the river and the ground becomes wetter. Adjacent to an amenity and play area the less managed part of the site provides an interesting variety of habitats in a setting dominated by the River Waveney and the valley beyond. The site is closely linked to the wildlife areas further along the river to the south such as St Mary's Paddock.

St Mary's Paddock is bordered by large trees and hedges consisting of elm, oak, plane horse chestnut, beech, ash and sycamore. Much of the site is mown grass with an unmanaged area to the east. The community has been involved in planting young trees and small bulbs to enhance the biodiversity and amenity value of the site.

The Dell is adjacent to St Mary's Paddock to the south. The site provides woodland habitat that includes species such as beech, cherry laurel, balsam and hazel. The characteristics of habitats on The Dell change in different parts of the site with some areas dominated by nettles and tree seedlings, some dominated by lower ground cover such as bluebells and primrose and others by bramble-like scrub cover characterised by bracken and willowherb. Fallen trees provide opportunities for other forms of flora and invertebrates to thrive. The site is accessible to the public through a number of well worn paths and contributes significantly to the character of the area. The site is connected to nearby habitats provided by trees and shrubs that extend along Bungay Road and onto adjoining properties. This area is close to the River Waveney and is well connected to the surrounding valley and countryside by a network of trees and hedgerows.

Meadow Gardens lies south of Beccles Cemetery. The boundaries are fringed by trees including sycamore and hawthorn with blackthorn and bramble also present. The latter is important for nesting birds and invertebrates. Much of the site is grassland and supports a number of different plant species. Common spotted orchids are found on the site and during their times of bloom enhance biodiversity and amenity value for the community. The site is to be used in the future as burial land once space is no longer available in Beccles Cemetery. As the time approaches for Meadow Gardens to become an extension of Beccles Cemetery the approach to management of the overall site will need to be considered.

Beccles Cemetery is adjacent to the northern boundary of Meadow Gardens and contains large trees including holm oak and sycamore. Ground cover is made up of a variety of different species and together with the trees and hedges they support a number of different types of butterflies, invertebrates and birds. Management of the site reduces some of its biodiversity value, however, it is directly linked to the open countryside and provides opportunities to act as a stepping stone between other biodiversity sites, particularly for birds and invertebrates. The site provides public

amenity value, has cultural importance and good access to a semi-natural environment enhances its value to the community.

The area south of Beccles lying west of Cucumber Lane is well connected to the open countryside through a network of trees and hedgerows. Rigbourne Hill Lane together with Bramley Rise, the railway line and Beccles Cemetery provide green areas that can support wildlife movement into the built up area through open spaces and private gardens. The residential area and road network in the vicinity of Ellough Road have limited connections to the open countryside that would support wildlife movement.

North Beccles

The largest biodiversity sites in the Beccles area are located in the north of the town. Beccles Common and Beccles Marshes are listed within the UK and Suffolk Biodiversity Action Plans. Beccles Common, a county wildlife site, consists of a number if habitats including ancient woodlands, lowland heathland, acid grassland, hay meadows, reedbeds and grazing marsh. Around the perimeter of the site is scrub woodland which is important for invertebrates and nesting birds. Dykes along the fringe of the site support a variety of flora including rare flowering-rush, lesser spearwort and water plantain. The site also supports the protected common lizard.

Beccles Common is the largest open space providing amenity value in the town. With good public access and a range of community facilities, including play areas for juniors and toddlers and a golf course, this site contains several different wildlife habitats as listed above. The expansive open space is well used by the public, however, dog mess is an ongoing issue. West of the Common are playing fields partially bound by mature trees which increase the overall size of the green space. Allotments are located between the Common and the railway line and this can provide a wider tract of habitat to support wildlife species such as slow worm.

Beccles Marshes are located on the north side of the A146 and are often used for grazing. Part of the network of drainage dykes is considered to be of regional and national importance with at least seven nationally rare species of aquatic plant and the uncommon Norfolk hawker dragonfly. The dykes provide a unique habitat to support flora and fauna which has declined dramatically in the Broadland area. Public access to the site is limited to the 'Angles Way' long distance footpath which runs along the southern bank of the River Waveney. This footpath provides a physical link between the Beccles Marshes, the open countryside on the west side of the River and The Quay, which is a quality amenity green space enhanced with play and leisure facilities. To the east of The Quay is an area where water voles have been identified.

The edge north of Beccles and Worlingham is well connected to the Waveney Valley through a network of waterways and hedgerows, however, there is limited potential for open spaces to act as stepping stones through the residential area itself. In this regard private gardens are important in this area. The area north of the River Waveney in South Norfolk has fewer hedgerows connecting

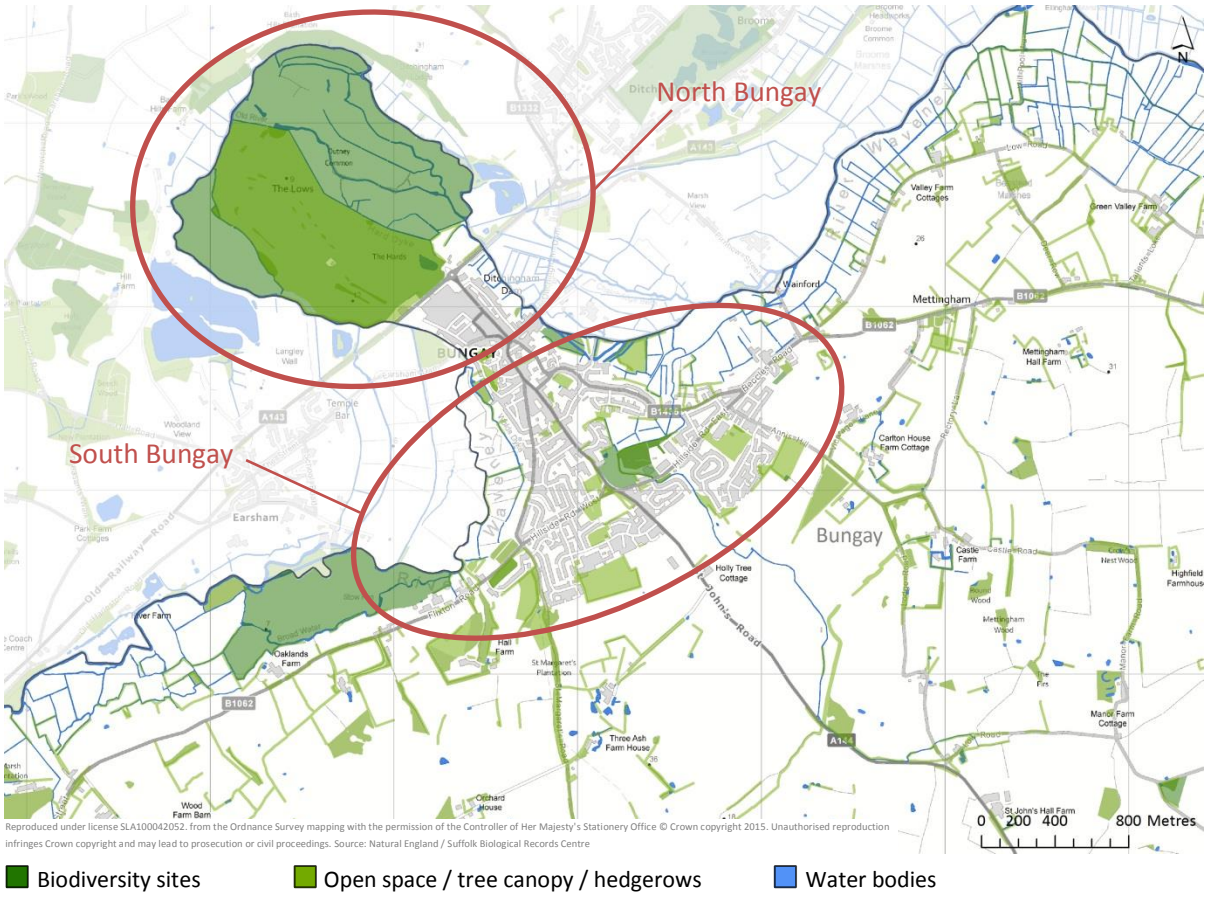
the countryside to the river and open countryside, however, there are a greater number of wooded areas. These have the potential to provide quality habitats and act as stepping stones for wildlife to move between habitats.

Railway line verges

The railway line traverses the town north to south and supports a variety of flora along its margins. This habitat is highly suitable for slow worm and common lizard. The railway is likely to provide a corridor to enable wildlife to move through the built up area. In conjunction with small open spaces, private gardens and existing vegetation in the form of shrubs and trees, the railway can act as a corridor and stepping stone between habitats. The railway line is an important part of the green infrastructure network.

Biodiversity in the Bungay area

Figure 2.16: Sites of biodiversity value in the Bungay area



North Bungay

Bungay is dominated by the River Waveney which flows around its northern boundary. The network of waterways and hedgerows provide habitats that support a diverse array of flora and fauna and have the potential to support movement between the urban fringe and the open countryside. These connections extend across the Waveney Valley into the habitats in South Norfolk around Earsham and Ditchingham.

Located north of the town the Outney Common is the largest accessible open space in the Bungay area. It contains two distinct character areas. To the west is acid grassland which is a Biodiversity Action Plan (BAP) habitat. Much of this area is used as a golf course with trees and shrubs enhancing the area's value for birds. To the east are low lying marshy meadows. The area is prone to flooding increasing its value for birds, particularly those that are overwintering or breading. Linnet and skylark, both of which are UK and Suffolk Biodiversity Action Plan Species, breed on the site.
Away from the golf course the land is used for grazing with rabbits also affecting the character of the flora. Light sandy soils support a mosaic of plant species and the Common is one of the few inland

areas in Suffolk to support bulbous meadow grass. Light soils and varied habitat are suitable for reptiles including grass snakes and common lizard.

South Bungay

Stow Fen is an extensive tract of grazed pasture bound by the River Waveney to the north and the Broad Water tributary to the south. Floristic value of the site is primarily found in the vicinity of the waterways. Its proximity to Outney Common located approximately 1500m to the north suggests that rougher areas to the east of the fen may provide habitat for wintering waders. The well grazed area is likely to generate a large insect population that will provide food for a variety of bird and bat species. The watercourses and surrounding hedgerows will act as navigation features for bats.

An open grassed area bound by mature trees is located adjacent to Woodland Drive between a housing development and Flixton Road. It is rectangular, mainly grassed with tree species such as larch, sycamore, red oak, lime whitebeam, and Scot's pine planted along the periphery. These trees are likely to provide some foraging and nesting opportunities for birds such as wren, wood pigeon and great tit. The site has limited biodiversity value but provides connectivity between the open countryside and areas of residential development.

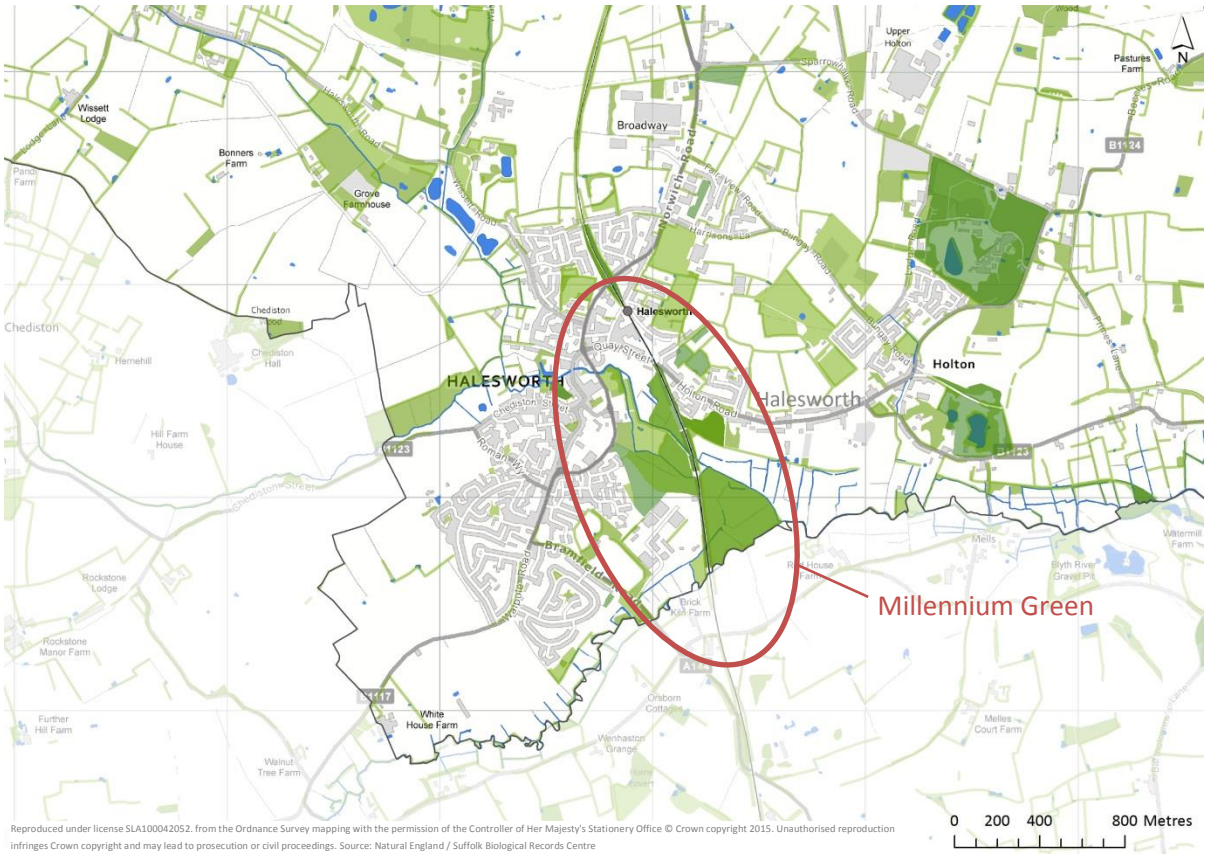
Adjacent to the Woodland Drive site is Bungay Cemetery. It is bound by roads and residential development but contains sufficient hedgerows and open space to support a variety of wildlife. Much of the site is well managed which inherently reduces its value to wildlife, however, in the older part of the cemetery where grass is longer and there is greater vegetation cover the habitat could support reptiles. Linked to the Woodland Drive open space to the west and together with Olland's Plantation and Skinner's Meadow to the east these sites create a central block of wildlife habitat in the urban area. To retain this connectivity consideration should be given to creating or maintaining corridors such as hedges and verges to ensure the site does not become totally isolated if future development takes place.

Skinner's Meadow and Olland's Plantation are commonly used for grazing and hay production. Open areas have sparse ground flora but support plant species such as St John's wort and willowherbs. The woodland to the north east of the site contains trees of a variety of ages, sizes and species. The adjacent hay meadow may provide habitat suitable for hunting activities for species such as owls. A sizeable drain runs along the north and west boundary of the site continuing under Hillside Road East which provides connectivity between habitats.

Greenway connections in residential areas in the south of the town to support the movement of wildlife and the public are limited. The areas at either end of the town extending east and west along Hillside Road and south along Flixton Road and south along St Margaret's Road and Annis Hill respectively have hedgerows and trees that are likely to support wildlife movement and offer protection for some species of fauna. Away from the built up area hedgerows and trees provide connections to wet habitats associated with drainage dykes and the River Waveney.

Biodiversity in the Halesworth area

Figure 2.17: Sites of biodiversity value in the Halesworth area



A network of open spaces lies to the east of the town centre that provides a variety of habitats that reflect their semi-natural and amenity character. The key wildlife attributes revolve around semi-natural green spaces commonly referred to as the Millennium Green, the New Reach River and the railway line. This habitat forms an important green wedge that connects the town centre with similar habitats associated with the River Blyth to the south.

At the northern extent of the Millennium Green network is the New Reach River and Marsh CWS. A network of drainage dykes traverses the marshes and supports a diverse range of aquatic vegetation and flora including ragged robin, hemp, agrimony, nettle, marsh thistle and hairy skullcap.

Separated by the railway line from the marshes is Birds Folly. The site is made up of a mixture of acid grassland, scrub and woodland and is surrounded by development on all but its southern border. The grassland supports a range of flowers and the woodlands contain a variety of ferns that support foraging and nesting habitat for birds. The site can potentially support BAP reptile species including grass snake, common lizard and slow worm, all of which have been recorded on the site.
Birds Folly is adjacent to Town Park, the largest multi-functional public space in Halesworth. Town Park provides a good link for the public to access an area of biodiversity value from the town centre.

Community facilities contained within the park can support adjacent wildlife areas by reducing pressure created by public access to sensitive habitat areas.

The railway line traverses Halesworth from north to south and along with New River connecting the open spaces that make up the Millennium Green network. The linear habitat is likely to provide a means of movement for species such as reptiles and connects the open countryside with the built up area and Millennium Green.

The New Reach River runs through Halesworth and provides wetland habitats to support a diverse range of uncommon flora and fauna such as kingfisher, otter and water vole. Habitat value is reduced where the river has been canalised, however, connecting dykes enhance the value to biodiversity in the area. The New Reach River extends into the open countryside to the north and west of the town.

Away from the Millennium Green network of open spaces there are few open spaces within the town that provide quality habitats for wildlife. Many of the open spaces are isolated and their managed nature limits the wildlife value they can provide, however, shrubs and trees around the border of most sites can support some species and act as stepping stones through the built up area. The north of the town is connected to the open countryside by a comprehensive network of hedgerows and trees. A series of open spaces such as the Halesworth Cemetery CWS supports several protected species of flora and fauna and wooded areas stretching east towards Holton are likely to provide habitats and support wildlife movement.

The southern part of Halesworth is connected to the open countryside by the Millennium Green. Open spaces located near the settlement edge (eg. Kennedy Close and Bramfield Road) contribute towards integrating the built up area into the open countryside and the Blyth Valley. In the vicinity of Walpole Road the distance between the settlement and River Blyth is significant compared to other areas in the south of the town. In this area hedgerows and trees are relatively sparse and provide limited value in linking the built up area to the surrounding environment.

Biodiversity in the Kessingland area

Figure 2.18: Sites of biodiversity value in the Kessingland area

North Kessingland

Land adjacent to the Kessingland Cliffs contains a variety of habitats that including tall grass and scrub that support insects and small mammals and provide feeding, nesting and roosting opportunities for birds. Locally common BAP species such as song thrush, starling and house sparrow, common lizard and slow worm may be present. The site is important for wildlife and contributes towards the wider ecological network as a wildlife corridor and stepping stone habitat as species move from one habitat to another. On the slopes of the cliffs and adjacent scrub the vegetation is species rich. Adder has been sighted on the beach and less steep sections of the cliff will provide quality habitat for reptiles.

The scrub area adjacent to the cliffs is dominated by blackthorn and hawthorn with some elder. The ground flora is relatively impoverished and is dominated by bramble and nettle. The site connects to a series of hedgerows running through arable fields and links to the wooded corridor north of Rider Haggard Lane. This wooded corridor contains ash, hawthorn, Italian poplars, elder, privet, oak and Scot's pine. The area is likely to be of exceptional value for migrant birds providing year round habitat or a brief stopping off point. Public access is available along a footpath with smaller informal footpaths also present.

South Kessingland

Several significant areas of biodiversity habitat are located south of the village including three County Wildlife Sites. The Kessingland Reedbed CWS is surrounded by semi-natural habitat and has good links with the Pakefield to Easton Bavents SSSI. The reedbed is bounded and bisected by dykes while land to the west supports species diverse grassland and scrub. Clumps of willow scrub scattered along the drier edges of the reedbed provide additional valuable habitat. The site supports a diverse variety of uncommon birds including Cetti's warbler, grasshopper warbler, reed bunting (BAP species), nightingale, water rail, linnet, lesser whitethroat and whitethroat. Reinstating the dykes, removing thatch and increasing water levels of the reedbed would enhance the wildlife value of the site.

The Kessingland Levels CWS is drained by the Hundred River and red fringed dykes. Some of the marshes are grazed by cattle while others are left unmanaged. Good populations of water vole and dragonflies are present on the site and bird species such as mute swan, moorhen and mallard are present with short-eared owls often hunting over the marshes and snipe overwintering and breeding during the summer. The high numbers of wigeon are of particular interest. Pochard, an open water species, is found in the area in significant numbers for the county.

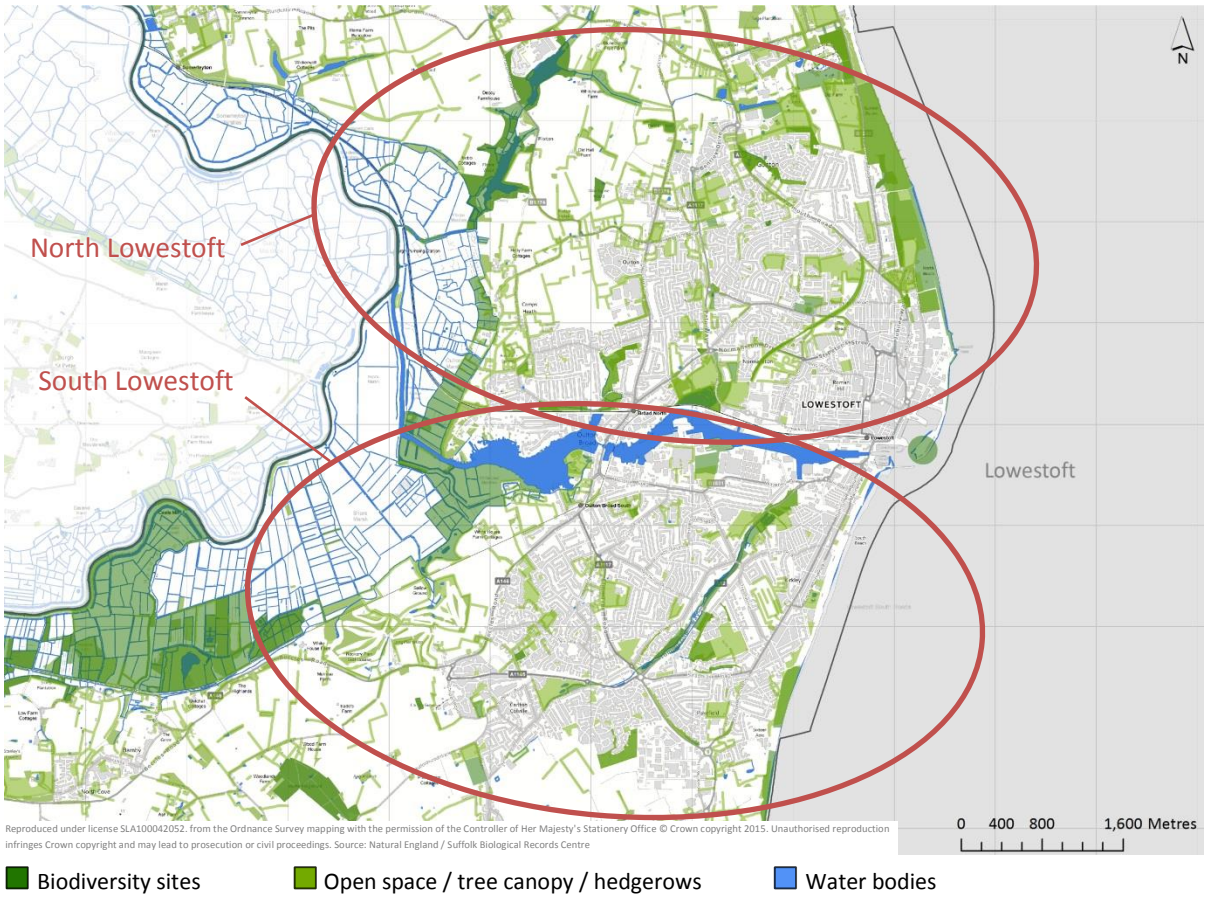
The western end of the Kessingland Levels connects with the Hundred River and Associated Dykes CWS. The gentle sloping margins of the river are grazed enabling a species rich marginal plant community to develop. Of particular interest is a thriving population of white water lily which is a good indicator of unpolluted water. A variety of wetland plants are found in the dykes including frogbit, skullcap, marsh woundwort and broad leaved pond weed. Signs of otter have been recorded along the river.

Kessingland Village

Within the built up area of Kessingland there are few open spaces of significant size that have potential to provide quality wildlife habitat, however, these areas can still act as stepping stones between sites. There are, however, a significant number of small amenity green spaces that provide openness and add to the character of the village. Trees and lower lying vegetation if improved could assist with enhancing vegetation and wildlife connections in the urban area. Church Road, running from the beach in the east to the A12 in the west, is well lined with vegetation, particularly the eastern section, and could potentially support bird movement through the urban area. Hedgerows and trees extending into the open countryside from the settlement boundary north and south of the village are limited.

Biodiversity in the Lowestoft area

Figure 2.19: Sites of biodiversity value in the Lowestoft area



Lowestoft has a significant number of biodiversity sites that support twelve Biodiversity Action Plan Species including great crested newt, water vole, common lizard, adder, linnet, Norfolk hawker dragonfly and ant lion. Several rare and unusual species have also been recorded in the area including Dartford warbler, Cetti's warbler, water rail and purple sandpipers. The breeding colony of kittiwake located at the eastern end of Lake Lothing is one of two along the east coast of England. The rustyback fern is regionally rare and the northern edge of Lake Lothing is one of two sites in Suffolk to support the species.

Wetland, freshwater lakes and ponds

The wetland habitats in the Waveney Valley to the west of Lowestoft are of high ecological importance. Sprats Water and Marshes, Oulton Marsh and Dykes and Dairy Farm Marshes have similar habitats and support a number of BAP species such as Norfolk hawker dragonfly, ramshorn snails, grass snake, water vole and common lizard. The area provides quality hunting territories for barn owl.

Several small water bodies along the South Lowestoft Relief Road corridor are found near Long Road, Kirkley Fen Park and Carlton Meadow Park. These provide examples of how sustainable urban

drainage networks (SuDS) can be included as part of a development to provide a function use (flood mitigation), amenity (openness and colour in the build up area) and provide a variety of habitats to support wildlife.

Flixton Decoy is located close to the Lound Lakes north of Lowestoft and is the largest freshwater body in the vicinity. These water bodies are surrounded by woodland with public access. The flooding of Leathes Ham in recent years has increased the value of the site for wildlife value. Gunton Pond CWS has a diversity of aquatic flora and its setting within Gunton Wood provides several different habitats in a small area. Great crested newts have been recorded in the Gunton area. Great crested newts have also been recorded in the vicinity of Chestnut Avenue and it is likely they are also present at Bonds Meadow. In addition to wildlife value ponds in residential areas such as Jenkins Green, Vermeer Close and Wissett Way provide value as amenity spaces with species such as ducks being commonly present encouraged by feeding.

Grassland

Several areas of grassland such as Gunton Meadow in North Lowestoft retain species rich habitats. The Net Drying Area located on a stretch of coastal shingle is a BAP habitat and extends northward to include the North Denes. Similar acid grassland is found at Kirkley Ham and Pakefield Park in South Lowestoft.

On the southern edge of Carlton Colville the open space referred to as Dale End provides a buffer between the existing residential area and the open countryside. As a managed area it provides as much value as an amenity space at it does for wildlife. Once the vegetation becomes established the site should take on more biodiversity value. Across the District some open spaces are being managed in a way that will encourage longer grass growth to enhance biodiversity and add greater diversity to habitats that are accessible to the public. Cemeteries and churchyards such as St Margaret's Churchyard, Kirkley Cemetery and the recently prepared Gunton Woodland burial site provide grassland and trees that support biodiversity and are likely to support wildlife movement between sites in the urban area.

Heathland

The main body of heathland is located at Gunton Warren. Heathland habitats often have a unique assemblage of plants and animals. The site is characterised by heather, a BAP habitat, and is associated with the presence of adder, ant lion and Dartford warbler.

Woodland

Fragments of ancient woodland are found to the north of the town in Foxburrow Wood and Workhouse Wood while other woodlands such as Parkhill Wood and Corton Woods exhibit flora typical of ancient woodland. Other areas of semi-natural woodland located in the town include: Arnolds Bequest which links the Net Drying Area to Sparrow's Nest Park and Bellevue Park; the Great Eastern Linear Park which provides an extended length of habitat that acts as a greenway in the

heart of North Lowestoft and Bond's Meadow which connects Hall Road Ham and up towards the proposed Woods Meadow Country Park.

In South Lowestoft the Relief Road corridor connects woodland, scrub and wetland habitats from Lake Lothing down to Silverwood Close. Open spaces such as Carlton Meadow Park are likely to act as stepping stones between these habitats for species that move within the built up area. These corridors not only provide quality movement corridors for wildlife but also enhance the built up area, enabling the public to use these sites in a functional manner which can contribute positively towards the perception of an area.

Scrub and hedges

Scrub and hedges are valuable habitats for birds, invertebrates and small mammals. Located in many different areas of the District they can provide feeding, breeding and roosting opportunities for a range of bird species. Scrub habitat is commonly found along the coast near the Gunton Cliffs and Pakefield Cliffs, urban parks including Pakefield Park, wildlife corridors and small open spaces that act as stepping stones between sites. They are often complementary to other forms of open space that provide wildlife habitat.

Over time where open spaces are not maintained the scrubbing over of grassland can take place providing new habitats for some species while reducing the quality of habit for others. For example the Brooke Yachts and Jeld Wen Mosaic CWS located on the southern shore of Lake Lothing is previously developed land that was left unmanaged. Scrub has since covered much of the site over with pockets of open grass, rock, and man-made debris. The variety of habits on site has created an area where a number of protected species are now present including the common lizard. If left unmanaged further scrub growth is likely to result in the common lizard habitat being compromised. Therefore, management of sites, where appropriate, may be needed to ensure particular habitats are protected to maintain their wildlife value. This particular CWS is part of a mixed use urban regeneration project detailed in the Sustainable Urban Neighbourhood and Kirkley Waterfront Development Brief Supplementary Planning Document.

Hedges are a common feature of the urban environment and are a prominent feature in the open countryside contributing towards landscape character. They provide habitat and visual enhancement in private and public gardens and provide shelter for small animals and invertebrates to move discretely between other habitats such as trees and scrub. In the countryside when considered together with the wider network of waterways and the River Waveney they create a network of interconnected habitats to support an array of flora and fauna. Extending from the urban boundary hedges provide wildlife connections between the urban area and the countryside. Further information about hedgerows in Waveney and the rest of Suffolk is available in the Suffolk Hedgerow Survey (1998-2012).

The movement of species between similar habitats can be important to facilitate dispersal or migration so that isolated pockets of small, in-bred populations do not develop. For free movement to occur the links between separate habitats should ideally be of the same habitat type (eg. woodland species prefer a wildlife corridor comprising woodland, scrub or hedge).

Biodiversity in the North Lowestoft area

Along Lake Lothing wildlife corridors extend both north and south through the urban area enabling wildlife to move between open spaces and habitats. In North Lowestoft Leathes Ham is part of a wider network of open spaces that includes Normanston Park, Lowestoft Cemetery and semi-natural woodland opposite Princes Walk. To the northeast the corridor extends along the Great Eastern Linear Park towards Yarmouth Road and the habitats along the coast. To the north Peto Way and Millennium Way create a green corridor consisting of grassed areas, scrub, hedges and trees that enhances connectivity to larger green spaces in the north of the town such as Foxburrow Wood and eastward to the coast. To the west this greenway links to the edge of Lowestoft and into the open countryside through connecting hedgerows and trees and into the Waveney Valley. This corridor remains relatively young in terms of its establishment but in the long-term as vegetation becomes more established the corridor will become more important for wildlife and the public realm. The route is also supported by a number of open spaces adjoining the corridor. Further west along the north shore of Oulton Broad, Hall Road Ham and Bonds Meadow provide a quality wildlife corridor to the north. This corridor is likely to be connected to the proposed development of Woods Meadow and the country park north of the existing residential area of Oulton. Providing connections that will support and enhance this ecological corridor should be encouraged.

Around the periphery of North Lowestoft hedgerows provide an opportunity for some species to move between the urban fringe, the open countryside and further afield towards the Waveney Valley. Away from the main green corridors mentioned previously there are few contiguous green areas within the built up area. A similar pattern is evident in South Lowestoft.

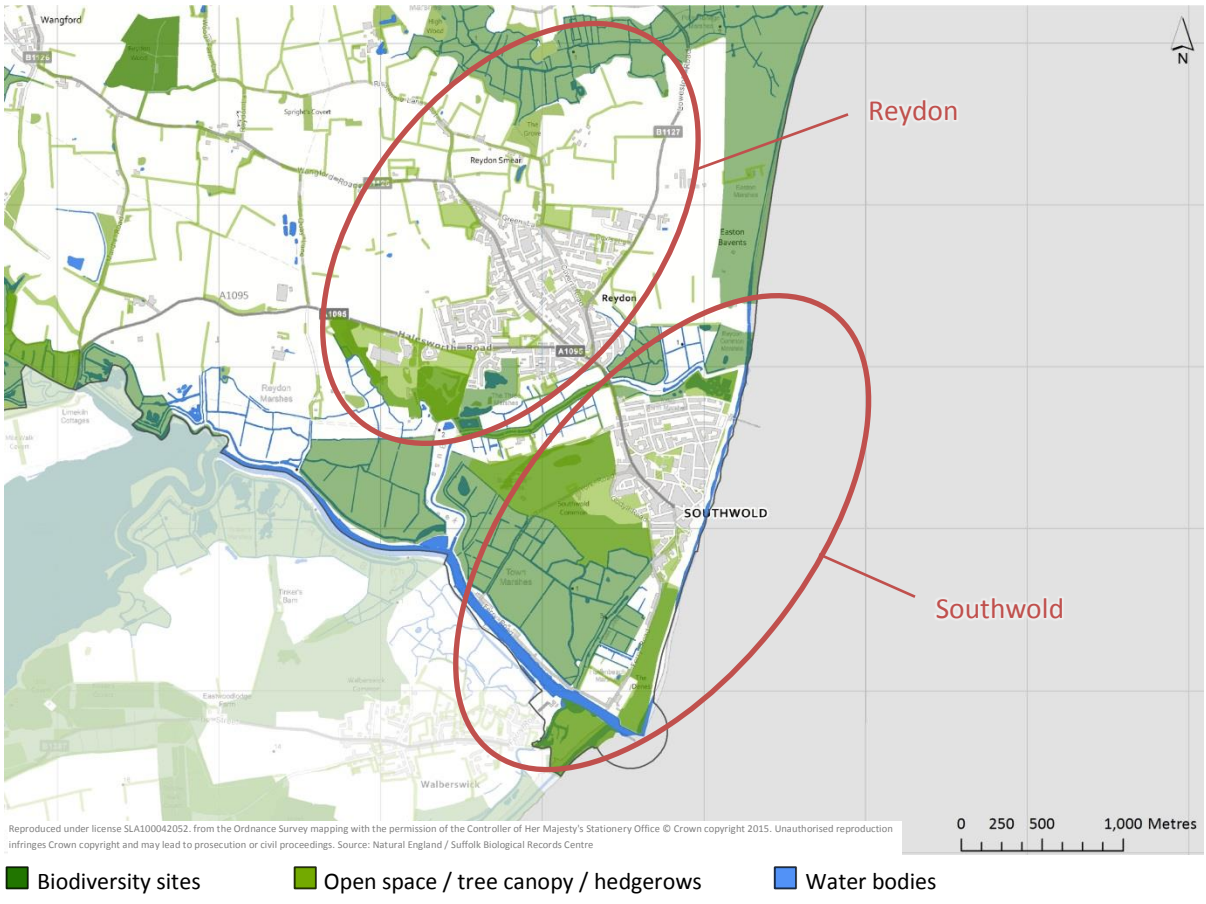
Biodiversity in the South Lowestoft area

South of Lake Lothing Kirkley Ham connects into an extended network of open spaces that includes Kirkley Fen and Kirkley Fen Park, the South Lowestoft bypass, Pakefield Park, Kirkley Cemetery and Rosedale Park. Small open spaces and vegetation in private gardens beyond this network will encourage connectivity south through Carlton Colville including Carlton Meadow Park and Dale End which extends into the open countryside. The A12 corridor from the Stradbrooke Road roundabout is likely to have limited value for wildlife because of its close proximity to traffic and the lack of dense planting, however, the hedging and trees acting as a barrier between the road and residential properties are likely to provide some opportunities for wildlife movement in this area between the roundabout and the coast.

Compared to North Lowestoft there are fewer hedgerows connecting the urban fringe to the open countryside. This is particularly evident south of Carlton Colville where fewer quality networks of trees and hedgerows link to open spaces near the edge of the settlement. This level of connectivity is likely to be further eroded as proposed development at Carlton Hall comes forward. Most tree and hedgerow connections between the residential areas of south Lowestoft and the countryside lie to the west near the Waveney Valley and to the south along the coast where the coastal environment (Pakefield Cliffs to Easton Bavents SSSI) is connected to inland areas closer to the A12. The hedgerows and trees provide biodiversity connections as part of the coastal area and help connect and define the character of the Strategic Gap between Kessingland and South Lowestoft.

Biodiversity in the Southwold & Reydon area

Figure 2.20: Sites of biodiversity value in the Southwold & Reydon area



Southwold & Reydon are located in an area of high biodiversity value. To the south the Minsmere to Walberswick Heaths and Marshes SAC and SSSI is found, to the north the Benacre to Easton Bavents is designated, both of which are of European importance and much of the area surrounding the two settlements is designated as County Wildlife Site. Located on the coast with the Blyth Estuary to the south the area has a diverse variety of habitats that support flora and fauna. Southwold & Reydon are situated within the Suffolk Coast and Heaths Area of Outstanding Natural Beauty.

Southwold

Southwold has an abundant array of wildlife habitats that reflects its location on the coast. The town has a number of semi-natural areas that enhance the wider green infrastructure network (eg. Southwold Common). This buffering with semi natural areas increases the connectivity between sites and habitats and increases the value of the ecological corridor. South of Southwold the Southwold Denes, Havenbeach Marshes and Walberswick Saltmarsh are County Wildlife Sites extending along the coast and into the open countryside and the Blyth Estuary provides wetland habitat that connects the coast and inland areas to the west.

The Havenbeach Marshes flood during the winter and attract migrating dunlin, ringed plover and whimbrel. Dykes in the area provide cover for species such as water rail and little glebe. They also support an array of rare plant species.

The Southwold Denes support a fragile plant community that has colonised the shingle and includes a variety of plant species that are nationally rare including sea holly, bulbous meadow grass and sea pea. Two species of the uncommon bird's nest fungus have been found on the site. Habitat found on the Denes provides good areas for reptiles such as the protected common lizard.

Within the built up areas pockets of open space provide habitats of limited value that can support the movement of wildlife through the urban area. Churchyards such as St Edmunds have trees, shrubs and grass to support wildlife, allotments provide habitat that may be able to support species such as hedgehog and hedges provide areas for birds and invertebrates. Playing fields and semi-natural areas such as Southwold Common are important for the connectivity they provide within the built up area and connecting the built up area with wildlife areas adjoining the settlements.

Reydon

Reydon is located to the northwest of Southwold. Between the two built up areas Buss Creek and the Easton Marshes are natural features that act as a wildlife corridor. They are key elements that help define the two settlements. Buss Creek is a CWS and the reed beds provide habitat that supports nationally rare bird species including night heron, avocet and bearded tit. Raptors including hen harrier, marsh harrier, short-eared owl and barn owl frequently hunt over the area. Small mammals such as water vole are also found in Buss Creek and the site is important for dragonfly conservation. Close to Buss Creek are the Easton Marshes. The marshes support a mosaic of habitats including shingle, heathland and marsh. To the south of the Easton Marshes are the Southwold Boating Lakes, an important refuge for wintering waterfowl. The Bridge Foot Marshes border the southeastern edge of Reydon and provide habitat for Lapwing and redshank to breed on the site. Amphibians such as frogs and toads breed in the area in large numbers.

South and west of Reydon the Reydon Fishing Lakes, the Reydon Marshes and St Felix School Grounds buffer Buss Creek and are designated as County Wildlife Sites for their biodiversity value. The Reydon Marshes are cattle grazed pastures separated by a series of drainage dykes. These dykes flood regularly and support wintering species such as teal, shoveler, wigeon, shelduck, curlew and redshank. Increased drainage of the marshes has reduced the amount of breeding habitat for waders and bird numbers are decreasing. The St Felix School Grounds provide semi-natural habitat that is becoming uncommon in Suffolk. The scrub supports breeding birds such as linnet, open areas are used by skylark and meadow pipit and the site supports common lizard.

Southwold & Reydon have a limited number of open spaces with offering good biodiversity value within the built up area, however, the variety of habitats such as wetland, beach, woodland and countryside are able to support a high variety of flora and fauna. A network of contiguous hedgerows and trees supports good wildlife connections between habitats. Many of these are protected for their wildlife value.

Biodiversity in the Rural Areas of Waveney

The Waveney Valley and areas close to the coast are extensive areas of high biodiversity value. The inland part of the District is rural in character with the western areas characterised by large, flat arable fields. Trees and hedges line many of the local roads but they tend to be sporadic and discontinuous. In the rural areas closer towards Redisham Hall and Sotterley Park the countryside is more rolling in nature with more areas covered by hedgerows, trees and ancient woodland. It is notable that fewer waterways in this part of the District correlate with fewer extensive habitats to support wildlife.

Hedgerows across the open countryside not only support flora and fauna but are intrinsic to the historic character of the area and enhance the visual attractiveness of this environment as discussed in Waveney's Landscape Character Assessment (2008). All of the larger villages in the District are well connected by hedgerows and trees to the surrounding open countryside.

Biodiversity offsetting

Biodiversity offsetting is an activity that compensates for the impact of development upon any site of biodiversity value. The creation of another site of biodiversity value in a different location or a project to enhance the biodiversity value of another site can improve biodiversity and green infrastructure in an area where it could have the most benefit or alternatively it may take place on the site that is subject to development. Biodiversity offsetting has the potential to be an important way of ensuring that development does not reduce the quality and quantity of green infrastructure with that has biodiversity value.

Biodiversity offsetting can be provided in different forms but its main objectives are:

- Biodiversity offsetting should be measurable. The value of the biodiversity offsetting project should be quantified and measured against the value of biodiversity that is lost to or impacted by development. Offsetting should be measured against the impact of development even if the project takes place in another location and is different in nature to the biodiversity that has been lost.
- Biodiversity offsetting projects should not merely replace biodiversity lost to development but should create an improvement to biodiversity in an area. In other words the value created by the biodiversity offsetting project should be greater than the value of the biodiversity that has been damaged or replaced by development.
- Offsetting should only be considered if there are no alternative sites for developments that do not contain any biodiversity and biodiversity cannot be designed into the proposed development.

Within Waveney the preference should always be towards protecting sites of biodiversity value from development. In practice this means directing development to where it will not impact upon biodiversity or, if this is not possible, by designing development in such a way as to minimise the impact on biodiversity. However there may be instances in the future where impact upon biodiversity is unavoidable and biodiversity offsetting should be considered.

It is important to consider that creating sites of biodiversity quality takes time and implementing biodiversity offsetting may be inappropriate as a result. For example the loss of ancient woodland cannot be recreated during the lifespan of a development or a quality habitat will require preparation, management and funding that is far in excess the funds a development is likely to generate. Biodiversity offsetting should only be considered when no other options to protect an existing site are available and the funding and management requirements placed on the developer should reflect the value of the site that is potentially lost.

Biodiversity in new developments

New development can provide opportunities to positively contribute towards biodiversity by considering the issue as part of the design process. The inclusion of biodiversity can be considered at a strategic level through the layout of a site and the masterplan and or at the scale of an individual building. The maintenance of open space can also affect the quality of biodiversity in an area. Some measures that can be considered (but not limited to) include the following:

- creation and restoration of ponds;
- creation of wildlife rich habitat as part of a landscaping scheme such as small mounds and depressions, planting of trees and shrubs and in exposed areas creating species rich grassland;
- retention and appropriate management of areas with botanical interest such as grass verge, south facing slopes, hedgerows and hedge banks;
- provision of hedges in place of fences;
- providing hedgehog access points within all internal and perimeter access fences (should be a minimum of 15 sqcm);
- use native hedging species of local provenance;
- allowing the natural colonisation of new verges and community open spaces to benefit local flora and invertebrates;
- using a 'flowering lawn' seed mix for residential and public grassed areas to provide a nectar resource;
- inclusion of green/brown roofs and green walls as part of the design of new buildings;
- incorporation of bird boxes for swift, house sparrow and starling into new buildings;
- incorporation of bat boxes in new buildings.

Biodiversity recommendations

General

Biodiversity recommendations

Work with Suffolk Wildlife Trust and organisations that seek to improve biodiversity and access to natural wildlife areas. This may involve the enhancement of existing sites, alternative approaches to site management, inclusion of biodiversity measures in new developments, identifying areas where public access is appropriate and where it can be improved and protecting important ecological corridors.

Beccles

Biodiversity recommendations

North of Beccles

Manage, conserve and enhance the varied mosaic of landscape cover including types of wetland marsh which relate to the landscape of the Broads. Manage carr wetland to maintain the characteristic structure and composition. Colonising scrub and carr woodland should be actively managed to avoid loss of wetland habitats. Opportunities for enhancing connectivity along field boundary lines should be explored.

North of Worlingham and North Cove

Manage existing mature hedgerow trees and trees lining the network of rural lanes to ensure continuity of cover. Native hedgerow planting should be implemented to enhance habitat connectivity. Enhance field boundary drains and ditches as a more legible wetland feature to improve visual connectivity with adjacent wetland landscapes (eg. the Broads).

South of Beccles

Opportunities should be sought to enhance hedgerows through gapping up and reinforcing of existing native hedgerows with appropriate species such as hawthorn, hazel, dogwood and common privet. Native hedgerow oak tree planting should be considered as part of a long-term approach to hedgerow management and enhancement to ensure continuity.

Bungay

Biodiversity recommendations

West of Bungay

Manage, conserve and enhance the varied mosaic of landscape cover including types of wetland marsh, which relate to the landscape of the Broads. Manage carr wetland to maintain the characteristic structure and composition. Colonising scrub and carr woodland should be actively managed to avoid loss of wetland habitats. Opportunities for enhancing connectivity along field boundary lines should be explored.

South and east of Bungay

Manage existing mature hedgerow trees and trees lining the network of rural lanes to ensure continuity of cover. Native hedgerow tree planting should be implemented to enhance habitat connectivity. Enhance and restore tributary ditch networks as a more legible wetland feature and valued habitat. Conserve and enhance mature farm woodlands through active and appropriate management.

Halesworth

Biodiversity recommendations

Blyth and Wang Valley

Areas of carr woodland and willow coppice should be conserved. Network of small scale wetland features such as rush pasture and reed bed should be protected. Opportunities to enhance linkages between natural and semi-natural sites should be sought to create higher quality habitats.

West of Halesworth and east/west of Holton

Replanting and reinforcement of existing field boundary hedgerows and the hedgerow tree network to enhance connectivity and visual integrity and integrate settlement with the surrounding landscape. Opportunities for heathland creation and linkages should be explored on acid, sandy soils.

Kessingland

Biodiversity recommendations

East of Kessingland

Protect the open setting of the coastal edge.

North of Kessingland

Encourage replanting along the existing hedgerow boundaries principally hedgerow trees such as oak and elm. Enhance habitat linkages and restoring the historic landscape pattern. Management and creation of wetland features along the tributaries and wet ditches should be encouraged.

North Lowestoft

Biodiversity recommendations

North of Lowestoft

Conserve and enhance existing field boundary vegetation, woodlands and wetland areas. Encourage replanting of hedgerow trees species such as oak and elm. Native planting will assist with integrating the edge of North Lowestoft with the landscape structure.

South Lowestoft

Biodiversity recommendations

South of Lowestoft

Encourage replanting along the existing hedgerow boundaries, principally hedgerow trees such as oak and elm. Enhance habitat linkages and restoring the historic landscape pattern. Management and creation of wetland features along the tributaries and wet ditches should be encouraged.

Southwest of Carlton Colville

Enhance field boundary planting and structural landscape. Additional hedgerow planting will enhance connectivity and habitat linkages.

West of Carlton Colville

Manage existing mature hedgerow trees and trees lining the network of rural lanes to ensure continuity of cover. Native hedgerow planting should be implemented to enhance habitat connectivity. Enhance field boundary drains and ditches as a more legible wetland feature to improve visual connectivity with adjacent wetland landscapes (eg. the Broads).

Southwold & Reydon

Biodiversity recommendations

East of Southwold

Conserve the dune systems and associated duneland habitat. Conservation of the crag cliff for its ecological and geological value, however, this will ultimately be lost to coastal erosion.

Between Southwold and Reydon

Creation of appropriate responses to counter sea level ingress such as extending and enhancing the network of wetland habitats inland along the tributaries of the Blyth could be explored.

West of Southwold and north of Reydon

Conserve and enhance the remaining areas of acid heathland through selective scrub management and the reinforcing of field boundary hedgerows (gorse) between sites. Conserve and enhance Scot's pine trees through management to ensure their longevity. Hedgerow planting and reinforcement in areas where agriculture has created gaps and thinning. Explore opportunities to create heathland and linkages between heathland sites to replace areas lost to coastal erosion.

West of Reydon

Replanting and reinforcement of existing field boundary hedgerows and the hedgerow tree network will enhance habitat connectivity and visual integrity. Opportunities to recreate and enhance the wetland landscape along minor tributaries associated with the River Wang and River Blyth should be explored.

Rural areas

Biodiversity recommendations

East and central area of the District

Opportunities to enhance existing hedgerows should be sought through gapping and reinforcement with native species such as hawthorn, dogwood, hazel and common privet. Native hedgerow oak tree planting will enhance the integrity of hedgerows over time. Waterways should be maintained to enhance their value as wildlife corridors and linkages between settlements and the open countryside.

West of the District

Reinforce existing native hedgerows to enhance landscape structure for connectivity. Consideration could be given to the creation of small scale farm woodland and areas of wood-pasture adjacent to existing woodlands to ensure continuity of cover and enhancement of habitat connectivity. Existing commons and village greens should be conserved and enhanced where possible.

North of the District (north of Lowestoft)

Reinforce existing hedgerows and field boundary hedgerows. Remaining hedgerows and field oaks are often mature and therefore consideration should be given to new planting to maintain and enhance continuity. Conserve and reinforce elements of the parkland landscape. Planting around the edge of Blundeston would help integrate the village in to the landscape.