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for people
for ever

A greener future for **The Broads**

Three challenges for a greener future for the Broads:

A much bigger effort to tackle decades of damage and neglect.
Managing the impacts of climate change and rising sea levels.
Creating more opportunities to live, work and play in the Broads sustainably.

How to contribute to the Broads debate

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The RSPB is the UK charity working to secure a healthy environment for birds and wildlife, helping to create a better world for us all.

Cover: RSPB Sutton Fen reserve, Norfolk, by Ben Hall (rspb-images.com). above: marsh harrier by Chris Gomersall (rspb-images.com)
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The RSPB's vision for Britain's most important wetland

The Broads is a special place. It is much-loved as a place to visit for local people and tourists. It provides jobs and a way of life for many people. There are wonderful birdwatching spectacles and opportunities for encounters with nature.

Yet, it has huge problems that are at odds with an area equivalent in status to a National Park. It has many wildlife sites that are in poor condition; access is mostly by cars and boats burning fossil fuels; conflicts between wildlife and boating remain; freshwater wetlands are threatened by poor water quality, abstraction and rising sea levels.

The impact of the 20th century has mostly not been kind to Broadland. Though much of great value remains, changes on land and water mean that much of the wildlife that local naturalist Ted Ellis wrote about is gone.

But going back is not an option. Neither, in our view, is 'business as usual'. How can we manage the Broads so its nature recovers, it is an asset for people and businesses, and it offers a truly sustainable future?

In this document, the RSPB wishes to show what we believe should be achieved in the Broads for wildlife and people. We set out the challenges, evidence and a vision. Case studies all point a way forward, including several in which we are directly involved.

Broadland is complex and solutions cannot be summarised easily, but we propose three key themes that should drive change in the Broads:

- 1 A much bigger effort to tackle decades of damage and neglect
- 2 Managing the impacts of climate change and rising sea levels
- 3 Creating more opportunities to live, work and play in the Broads sustainably

These are simple words yet huge challenges. We cannot achieve this ourselves: it will need a united effort from many agencies, authorities and individuals, including the Broads Authority, the Environment Agency and Natural England.

We don't claim to have all the answers. But we offer some measures against which change can be assessed – for better or for worse. We hope this will encourage a debate about how we manage one of Britain's greatest natural treasures.

Richard Powell

RSPB Director, Eastern England





What's special about the Broads?

For anyone in Norfolk and Suffolk living close to the Broads, it's all too easy to forget what an extraordinary landscape this is. No list will be complete, but within its 301 square kilometres, the Broads includes:

- The largest area of grazing marshes in Britain – some 13,500 hectares – dependent on a thriving livestock industry.
- A network of 60 man-made, shallow lakes – the Broads – many linked by the rivers of the Bure, Waveney and Yare and their tributaries, especially the Ant and Thurne.
- Breydon Water, the remaining area of a once vast estuary in Roman times.
- A large area of swamp woodlands – known as carr – and fens, the latter producing reeds and saw sedge used for thatched roofs.
- A recent history of conflict and damage, such as marshland drainage, but also innovative solutions including the Broads Environmentally Sensitive Area and suction-dredging of broads like Barton and Barnby, building on improvements in water quality from investment in sewage treatment.
- Strongholds for special species including the bittern, marsh harrier, fen orchid, otter, Norfolk hawk dragonfly and swallowtail butterfly.
- Many protected sites for wildlife, including nature reserves managed by the Wildlife Trusts, Natural England, National Trust, the RSPB and others.
- A unique body, the Broads Authority, set up to manage the area in partnership with other agencies and individuals.
- More than two million people visiting the Broads every year, both land-based and boat-borne, a tourist industry generating many millions of pounds a year for the local economy.
- Large numbers of people living and working in the area – and Growth Point status for the Greater Norwich Area means that numbers will grow.
- A varied landscape – some enclosed, some open – that has inspired writers and naturalists such as Arthur Patterson, Ted Ellis and Martin Kirby and painters including John Crome and John Sell Cotman.

'Coots hurry busily along the edge of the dry reeds that pulse in the air and there is a rare clarity, a depth of colour and crystal cleanness to everything around them ... The reeds are close now, close enough to hear, to see the detail, the dense forest of bleached gold rising from the ink-deep river, the stems and seed heads flowing back and forth, fizzing, whispering.'

From *Count the petals of the moon daisy* by Martin Kirby, 2007.



Eastern Daily Press



Eastern Daily Press

'Although it has been subject to major environmental changes since the Second World War, notably as a result of the enrichment of the waterways by excessive quantities of nitrates and phosphates, and the ploughing up of much grass marshland, Broadland is still regarded by conservationists as one of the most important wetland systems in Britain.'

Dr Martin George'



Norfolk Hawker by Kevin Simmonds

The challenges

Rising sea levels and climate change

The threat from the sea is increasing, but it isn't new for the Broads. Ted Ellis noted in the early 1960s: 'Their waters are often ruffled by sea breezes and salt tides affect them from time to time; indeed, but for the sea defences, they and many thousands of acres of adjacent marshes would be at the mercy of regular sea flooding.' Much of the Horsey, Hickling and Martham area was flooded with sea water in 1938. In 1953, 5920 hectares were flooded in the Yare, Bure and Waveney valleys, including some of Great Yarmouth, and there have been many smaller surges since.

Setting back flood walls can contribute to flood management and new washlands can help contain river floods; both can be managed with nature conservation in mind. We need to make space for these, but not damage areas of high wildlife value. In the long-term, we may need to create new habitats to offset areas lost to rising sea levels. Where should these be?

Increasing the size of wetland habitats is likely to make them more robust in the face of climate change. Large wetlands are less likely to dry out in periods of prolonged drought and extensive freshwater wildlife habitats can speed the recolonisation of a wetland damaged by saltwater flooding.

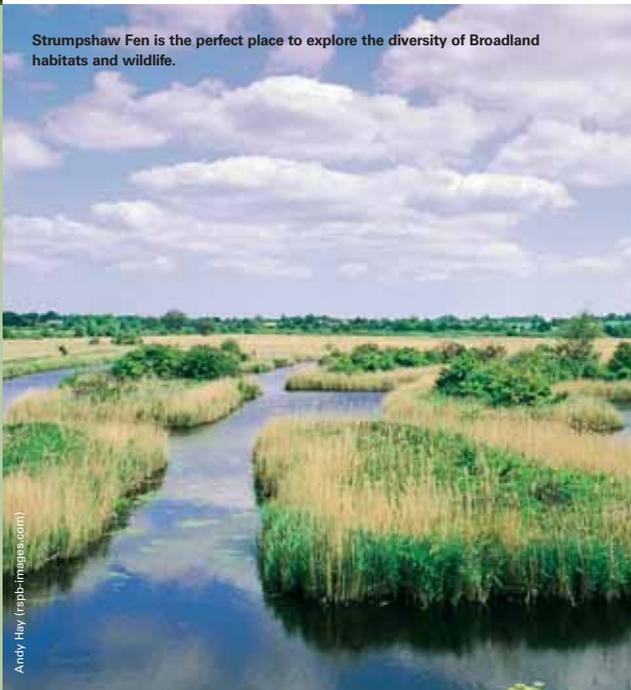
Strumpshaw Fen is the perfect place to explore the diversity of Broadland habitats and wildlife.

Case study: Strumpshaw Fen

Restoration of the reedbed and fen at the RSPB's nature reserve at Strumpshaw Fen has benefited breeding bitterns, marsh harriers, bearded tits, water voles, otters and swallowtail butterflies. Work includes removing scrub and invasive plants, summer mowing and grazing. The fen meadow is managed for its wild flowers and is one of many features popular with visitors.

The reserve, in the Yare Valley, is downstream from the large sewage treatment works at Whittingham and was isolated from the polluted water in the 1970s. Following investment by Anglian Water, many nutrients are now stripped from the water coming out of the works and some water plants are now growing in the river. However, as nutrient levels remain high for sensitive fen habitats and salt water increasingly comes upstream, Strumpshaw Fen needs to remain isolated from the Yare to maintain its special freshwater wildlife communities.

Andy Hay (rspb-images.com)



Should this mean bigger nature reserves, or more privately-owned land managed with wildlife in mind?

Broadland Environmental Services Ltd (BESL) will spend £120 million in the Broads over 20 years to improve and maintain flood defences. Some conservation activities linked to this work have helped scarce species such as the marsh mallow, greater water-parsnip and water vole. However, there are tight restrictions laid down about how BESL spends its money and the net benefit so far for biodiversity has been modest set against the amount spent. We suggest that the Broads area deserves better than this: it's a disappointing result made starker by the fact that the majority of these works would not meet normal cost-benefit rules that apply elsewhere, so there should be greater public benefits. Do you agree?

The Broadland Flood Alleviation Project's Wetland Task Force² identified opportunities for wetland enhancement in the Broads, linked to flood risk management in line with Government policy to make space for water³. However, there is little sign that these will be made a reality.

Protected sites

The Broads has a large network of designated sites. How do we link them with neighbouring land to benefit wildlife, the landscape and people?

Water quality

Is it possible to manage water and land so that all rivers and broads have high quality water that is not enriched by sewage or run-off from farming?

Places for people

How do we make it possible for more people to enjoy the Broads without damaging its wildlife?

Naturally functioning rivers and wetlands

Wetlands should be connected to the floodplain (once water quality is good) where practically possible. What steps are needed to make this possible?

Changing land management

How do we manage land to create a landscape rich in wildlife that provides food, jobs and tourism?

Preventing pollution

Creating new wildlife habitats can both make up for past losses and help prevent damage to existing sites.

- Turning grassland to deep-drained arable created the bright orange ochre deposits – ferric hydroxide released from soils once flooded by saline water – that have affected Horsey Mere for five decades. The solution: turn arable land on the Brograve Level back to grass (partly done) and raise water levels (not yet done). Sometimes turning back the clock really is the answer. Failing this, find alternative ways of disposing of the ochre-rich water, for instance to the sea.
- Soil and other run-off from farming entering rivers can be stopped by buffer zones in the upper valleys of Broadland. 'Catchment-sensitive farming' – being promoted by Natural England – aims to combine new wildlife habitats with water quality benefits.

Further measures are needed to reduce **bank erosion**, lessening the need for dredging and sediment disposal.

Protected sites – fact file

The Broads is the UK's largest wetland, covering over 30,000 hectares of floodplain. These include 5549 hectares – a substantial part, but well under a fifth of the total area – designated not only as a Site of Special Scientific Interest (SSSI), of national importance for wildlife, but also as a Special Protection Area and Special Area of Conservation under European legislation and recognised as internationally important wetlands under the Ramsar Convention. Natural habitats include intertidal estuary (Breydon Water), reed-fringed shallow lakes (the Broads) and other open water, fen, carr woodland and grazing marshes. Together they support more than 100,000 birds, 80,000 of which can be seen at RSPB Berney Marshes and Breydon Water.



Wildlife benefits from good water quality.

Water vole by David Heath (rspb-images.com)

The Water Framework Directive

This Directive is the most substantial piece of European water legislation to date. It requires all inland and coastal waters to reach 'good status' by 2015. It will do this by establishing a river basin district plan within which demanding environmental objectives will be set, including ecological targets for surface waters. The Directive sets a framework that should provide substantial benefits for the long-term sustainable management of water. We get better water quality in a much more joined up way – letting us balance environmental, economic and social considerations. This will mean returning life to many of the impoverished broads.

The evidence

Protected sites

Natural England, the Government conservation agency, measures the condition of Sites of Special Scientific Interest (SSSIs). These are our wildlife gems, most of European as well as national importance.

An astonishing 72% of the area of SSSIs in the Broads is in 'Unfavourable' condition: not up to scratch, despite the efforts of the Broads Authority, the National Trust, Natural England, the RSPB, the Wildlife Trusts, private landowners and others. Causes include poor water quality and lack of management: this is difficult to tackle, but by no means impossible given sufficient will and resources from the Government and its agencies. Some SSSIs are classed as 'Unfavourable Recovering': these together with those in 'Favourable' condition are classed as meeting the Government's SSSI targets. This still leaves 3,725 hectares, 54% of the area of SSSIs in the Broads, in 'Unfavourable No Change' or 'Unfavourable Declining' condition.

This is the single most damning piece of evidence that all is not right for wildlife in the Broads. Furthermore, many other parts of Broadland merit protection as SSSIs, but have never been designated: they have fewer measures of their condition but are likely to be poorer still.

Condition of Sites of Special Scientific Interest (SSSIs) in the Broads

SSSIs in the Broads		
Number: 27	Total area: 6,849 hectares	
SSSI condition	Area (ha)	Percentage
(a) Favourable	1,918	28%
(b) Unfavourable Recovering	1,207	18%
Meeting Government targets (a + b)	3,125	46%
(c) Unfavourable No Change	2,975	43%
(d) Unfavourable Declining	750	11%
(e) Part Destroyed/Destroyed	0	0%
Not meeting Government targets (c + d + e)	3,725	54%

Source: Natural England. Numbers are rounded so may not add up.

Water quality in the Broads has suffered from high levels of phosphates and nitrates, the former mostly from treated effluent from sewage treatment works and the latter from farmland in the river catchments. Improvements would benefit the whole Broadland ecosystem, including birds. Successful implementation of the Water Framework Directive (see left) will require a reduction in inputs of nitrates and phosphates. Management of the wider catchment will be needed.

Numbers of breeding wading birds in the Broads grazing marshes has declined, especially lapwings and snipe. These birds are increasingly dependent on nature reserves, despite wildlife-friendly farming schemes²⁹.

More than half of our nationally important wildlife sites in the Broads are in sub-standard condition.



Berney Marshes (rspb-images.com)

Changes in the populations of breeding lapwings, snipe and redshanks on 17 sites in the Broads between 1990 and 2006³⁰.

	1990/91	2006	% change
Lapwing pairs	158	103	-35
Redshank pairs	84	57	-32
Snipe pairs	84	5	-94

Results at RSPB Berney Marshes, one of the 17 sites surveyed³¹.

	1990/91	2006	% change
Lapwing pairs	12	47	392
Redshank pairs	7	34	486
Snipe pairs	2	2	-

The **bittern** was once common in the Broads, but was hunted to extinction in the 1800s. Recolonisation, helped by landowners, allowed numbers to climb to a peak of 55 booming males in the Broads in 1954. Deteriorating water quality and a lack of fen management led to a steady decline, to a low point of just one boomer in 1998. Programmes to tackle both of these has led to a recovery in numbers to 10 boomers in 2007, still well short of the 1954 peak³².

Water skiing continues on the River Yare and Breydon Water, despite being adjacent to or inside nature reserves and wildlife sites of European importance, causing bank erosion and disturbance to people and wildlife on nature reserves.

Though far from their peak, Broads bittern numbers are slowly recovering. At Buttles Marsh, How Hill, the RSPB and the Broads Authority are developing new habitat for bitterns with EU LIFE funding.



Buttles Marsh (rspb-images.com)



John Sharpe (RSPB)

John Sharpe, RSPB conservation manager in Norwich says, 'With my 12-year-old son, Patrick (above), I enjoy disappearing for a day to explore the Broads in a kayak. It's great getting about under our own steam. This silent, watery version of cycling is carbon neutral and doesn't cause erosion to the riverbanks. It's also the best way of seeing wildlife. On a typical trip, we'll see fish, hear warblers in the reeds and kingfishers will dart in front of us.'



Andy Hay (RSPB-images.com)

The vision

An essential starting point is that use of the Broads should be environmentally sustainable. Nature helps us provide a measure of sustainability: any development or activity should mean no losses for nature, such as the number of birds or the extent and variety of aquatic plants.

Sustainable development: there have been many definitions of sustainable development. The Bruntland Commission – the 1987 World Commission on Environment and Development – defined it as 'development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs'.

Recreation and tourism: our vision is that recreational use of the Broads will be sustainable in terms of numbers and types of activity. Recreation should not hold back improvements to the Broads ecosystem.

Some areas will always be too remote or too sensitive to allow access. Elsewhere we would like to see a steady growth of travel by canoes, bikes, electric boats and using integrated public transport.

The principles for tourism – in effect recreational visits with overnight stays – are similar. A growth of tourism in the Broads – if the detail is right – accords with increasing emphasis on sustainable or slow tourism. Holidays at home, or indeed attracting overseas visitors, will typically have a lower environmental impact than holidays involving flights.

Habitat creation: we would like to link protected sites with surrounding areas, providing a network of wildlife sites with flourishing businesses and public access. Progress is underway in the Yare Valley – see pages 14–15.

Support from Natural England's Environmental Stewardship has an important role in making a sound business case to landowners for wetland creation. It needs to be directed to where it makes a strong contribution to wildlife as well as landscape.

The environmental economy: businesses in the Broads need to be environmentally sustainable as well as financially sustainable – already encouraged by the Broads Authority. While increasingly there will be market niches for environmentally-friendly businesses, there is also a role for public support for the 'public goods' of enhancing wildlife and landscape, especially for farm businesses.

Local businesses such as pubs and restaurants should offer locally-produced food whenever practical – to reduce food miles and, for meat in particular, to support farming businesses that in turn are essential for the wildlife and landscape of the Broads.

There is scope to encourage businesses to contribute more to the conservation of the Broads through an initiative such as the Connect scheme in the Suffolk Coast and Heaths Area of Outstanding Natural Beauty. This would help visitors to see which businesses are committed to the environment, while generating funds for conservation projects.



John Markham (RSPB-images.com)

The Broads has charismatic wildlife, such as swallowtail butterflies, that appeals to many people.

Showing people wildlife: people respond well to initiatives that help them see and enjoy wildlife. We see scope for a growing programme of events and activities featuring the charismatic wildlife of the Broads, from marsh harriers to swallowtail butterflies, Norfolk hawkers, cranes, winter flocks of geese and thousands of wading birds on Breydon Water in winter. These can give opportunities for volunteers to get involved with activities in the Broads and for families to take part.

Environmental education has a valuable role and there are excellent projects in place at How Hill, Ranworth and Hicking Broads (Norfolk Wildlife Trust) and Whittingham Country Park (see below).

Children love learning about wildlife hands-on. Can we make this possible for all children who live near the Broads?



Case study on transport: widen the choice

With the Wherry and Bittern railway lines through Broadland still intact, a relatively flat landscape sympathetic to cyclists and navigable rivers, the Broads has great potential to encourage visits by methods other than the car. These have been promoted by the Widen the Choice Rural Transport Partnership, supported by the Countryside Agency (now part of Natural England), National Trust, RSPB and the Broads Authority. Trains now stop on Sundays at RSPB Buckenham Marshes; there are new cycle stands at places such as RSPB Strumpshaw Fen and the National Trust's Horsey Mill. The overall impact is difficult to measure though: this kind of behavioural change tends to happen slowly.



Eastern Daily Press

Case study: Whittingham Broad

A former gravel pit on the edge of the Broads provides recreation and teaching opportunities. The facilities at Whittingham Country Park recognise the demand for watersports and the value of making these available close to Norwich, with potential for taking pressure off sites that are more sensitive. A partnership between the Broads Authority, the RSPB and Whittingham Charitable Trust has led to a new field teaching scheme already involving 800 children a year.

Sutton Fen: a study in continuity

Brothers Eustace and Robert Gurney set up a freshwater biological station by Sutton Broad, collecting valuable scientific information about aquatic flora until the First World War brought it to a close. In various private ownerships since, not many people have visited this remote and inaccessible area. The active involvement of the Broads Authority and Natural England has prevented scrub from covering the fen. The last landowner, David King, was acutely aware of the area's value and sensitivity, adding an organic farming business on adjacent land and bringing in Highland cattle to graze the Fen. When he decided to move on, he was anxious that it was left in safe hands: he sold Sutton Fen to the RSPB in 2007. The Society is aware of its inheritance and the responsibility for wise management that this brings.

'I am very pleased that Sutton Fen is in good hands. It matters a lot to me that my work here over the last 10 years, with much help from the Broads Authority and Natural England, is continued.'

David King, the previous owner of Sutton Fen.



The vision: meeting the challenge of climate change and rising sea levels

Rising sea levels, increased storminess and climate change mean the Broads' environment will change. But how much? What principles should guide change? Storm surges may bring dramatic change. The lower rivers will become increasingly saline; the coastline between Happisburgh and Winterton may undergo dramatic change. The effects on wildlife will be as far-reaching as those on people.

Managing change

The RSPB would like to see the Broads remain as a predominantly freshwater ecosystem where it is practically possible. However, ever-higher sea defences are not sustainable, so some movement inland of saltwater and brackish water communities is inevitable. This will help to offset some of the estimated 600 hectares or more of intertidal habitats lost every year elsewhere.

The RSPB believes that the process of change should be managed, with new wildlife habitats created to conserve the special interest of the Broads but in new locations, safe from rising sea levels and saline incursions. Until these replacement habitats are established, every effort should be made to maintain the existing habitats and species where they are.

Where could new wetlands be?

New freshwater wetlands are likely to be on a mix of land within the Broads and farther inland such as in the Yare and Wensum valleys upstream of Norwich. Later this century, depending on the scale of change, we may need to look farther away still for wetland creation opportunities secure from rising sea levels, such as in the Fens.

An urgent need

The long-term nature of climate change allows us time to adapt, but the search for replacement habitats should start now. We know from elsewhere in Eastern England that this is possible but takes time – so it's an urgent need and, for sites designated as internationally important, a legal need.

Help for wildlife and people

If these changes happen on a huge scale, we need to find new ways to help people adapt, alongside wildlife. These could include help to move out of the flood risk zone, or make buildings more resilient within it. There must be a strong presumption against new development in the floodplain. We need to allow space for water, not contain it.

Measuring change

12 indicators of a sustainable Broadland by 2015

Measuring success or failure of the management of the Broads is far from easy. Flagship 'quality indicators' can give a helpful understanding of progress.

All inland and coastal waters are required to reach 'good status' by 2015 under the Water Framework Directive. This is a key step and gives a timetable for action. We welcome a debate on the principles and detail of the following 12 indicators of a sustainable Broadland.

Wildlife and the environment

- 1 No net loss of protected sites. All SSSIs should be in favourable condition or at least unfavourable recovering.
- 2 A recovery of the numbers and range of breeding wading birds to at least those present in the 1982 survey.
- 3 A recovery of bittern numbers to at least 20 boomers.
- 4 Water quality restored so all rivers and broads are in 'good ecological status'.

Enjoying the Broads

- 5 Restoration of one major river valley to rich, natural habitats including a reed-fringed, undredged river.
- 6 Every primary school child within 30 minutes' travelling time to have an opportunity to be involved with a field teaching scheme in the Broads every year.
- 7 20% of visitors to the Broads arriving by means other than by car.¹
- 8 A carbon budget established for the Broads, so the carbon footprint for all activities in the Broads can be measured then reduced.²

Businesses and jobs

- 9 A scheme in place to give opportunities for businesses to contribute to the environment of the Broads.
- 10 At least half of all boats on the Broads not powered by fossil fuels.
- 11 A pool of skilled reed and sedge cutters to allow traditional fen management to flourish throughout the Broads.
- 12 At least two-thirds of all pubs and restaurants in the Broads offering locally-produced foods.

¹Presently 94% of visitors to the Broads arrive by private car. Source: Norfolk County Council's Broads Area Transportation Strategy 2006-2011.

²The Broads Authority is making provision for electrically-powered craft and providing support to several green energy schemes, including the development of solar power propulsion in boats. It has also assessed the carbon impact of different land management techniques and is looking into reducing its carbon footprint. These are all valuable steps to take now, ahead of understanding the bigger picture of a carbon budget for the Broads as a whole.

'Farming matters to the Broads. The area surrounding the Broads is predominantly farmed land, managed by farming families who have often lived and worked there for generations.

Like the Broads themselves, food produced locally is distinctive and special and farmers will have an increasingly important role to play in the Broads' future.

Farmers are perfectly placed to supply quality produce to shops, pubs and restaurants throughout Broadland, thereby reducing food miles, and to grow energy crops to replace fossil fuels.

The NFU wants to see policies in place which allow these farm businesses to flourish and which recognise and value the positive contribution farming makes to this unique environment.'

Paul Hammett, Senior Environment and Land Use Adviser, NFU East Anglia

Case study: encouraging a tradition

All conservation bodies recognise the essential value of reed and sedge cutting in the Broads and the reed and saw-sedge remains in demand for thatching. It's a skill that gets handed down from generation to generation, but new blood is badly needed. A Broads Authority initiative, with Heritage Lottery Fund support and help from conservation bodies and Easton College, is training five men and women in these traditional skills, leading to a qualification. The next phase of the project, already underway, is five trainees on a three-year course in traditional millwrighting skills.



Case study: Beckhithe Farms

'During the last 10 years Beckhithe Farms has established itself as one of the country's largest and most highly regarded beef producers. We are farming some of the most environmentally-sensitive marshland in the heart of the Broads. The farm is in an area designated a Ramsar site, making it one of the world's most important wildlife wetlands. Beckhithe Farms has recognised the challenges brought about by the reform of the Common Agricultural Policy and adjustments have been made to our livestock enterprise to enable sustainability. I see farming as a partnership working openly with Government, environmental and wildlife organisations, agricultural suppliers, marketing agencies, food processors and retailers to achieve mutual objectives.

'Projects that have benefited farming and wildlife include re-instating many miles of dykes, replacing blocked culverts and also forming food drains. These are used to bring water on to the marshes in the dry summer months and take water from the marshes to prevent flooding in winter. Without profit from farming, landscape quality and wildlife interest would suffer. As land managers, Beckhithe Farms sees itself not only producing food but also enhancing the Broadland environment.'

Barry Brooks, managing director, Beckhithe Farms
www.beckhithefarms.co.uk



Debating points

The **Sandford Principle** is named after Lord Sandford who chaired the National Parks Policy Review Committee, which reviewed the national parks of England and Wales between 1971 and 1974. The two purposes of National Parks are, in short, (1) the conservation of the natural environment and (2) access for the public.

The Sandford Principle is often quoted as 'conservation has priority over recreation'; however, it is better summarised as 'where those two purposes cannot be reconciled by skilful management, conservation should come first'. This effectively applies the principle of Sustainable Development to National Parks.

Debating point: should those living and working in the Broads accept the Sandford Principle?

In 2006, the Government rejected the idea of the Broads being called a National Park. All other National Parks are signed up to the 'Sandford Principle' – see above – whereby in the event of an irreconcilable conflict of interest, conserving our natural environment is the first priority. The Broads could be a National Park by adopting this same principle as the other National Parks.

The Broads Act 1988 gave equal weight to conservation, recreation and navigation. This was hotly debated at the time and remains contentious.

We would argue that stalemate situations, such as the long-running debate about the management of Hickling Broad, are a result of the absence of the Sandford Principle and the weight the Broads Authority gives to protect the interests of navigation.

One point often made is that the Sandford Principle is only rarely applied in the 'true' National Parks. This cuts both ways. It may suggest that its application to the Broads therefore doesn't matter. Or, by contrast, that the existence of the Sandford Principle has enough weight without being explicitly invoked.

The debate and the strong feelings on both sides show that the Sandford Principle is a symbol that says a great deal about priorities.

The RSPB's view is that conservation should be the priority in the Broads, the UK's most important freshwater wetland. If the wider Broads community accepted the Sandford Principle then it really would deserve to be a National Park in reality, as well as in name.

Debating point: how well has the Broads Authority done?

The Broads Authority started as a joint committee of local authorities in 1978 and became a 'special statutory authority' in 1989, with responsibility for conservation, planning, recreation and waterways. No-one should underestimate the scale and complexity of this work and the difficulties in tackling some of the fundamentals, such as influencing water quality. The Authority has provided a focus for research and development of new solutions. Broads Authority successes include mud-pumping programmes to restore Broads; large-scale Fen restoration, including developing the fen harvester that can work in marshy terrain without sinking; and boosting traditional skills of reed and sedge cutting. Grants through the Sustainable Development Fund support a range of projects.

These are all valuable achievements, although the RSPB believes more could have been done. Resources are a factor, but nonetheless it was left to others to find a solution to water management on the Halvergate triangle; ochre pollution in the Thurne Broads has been left untackled for decades; the momentum for Broads restoration has slowed.

Too much influence has been given to boating interests; we disagree with decisions favouring boats over wildlife on Hickling Broad and on water skiing near Strumpshaw Fen. It gets forgotten, in some quarters, that the environment is why the Broads supports leisure and many linked businesses.

Debating point: how well has the Broads Environmentally Sensitive Area done?

The Broads Environmentally Sensitive Area (ESA) offered landowners financial support to retain grass marshes as an alternative to incentives under the Common Agricultural Policy to turn these areas over to arable production. The ESA's options and payment system encouraged a high uptake of this voluntary scheme within the Broads grazing marshes and largely reversed the trend of agricultural intensification of the previous three or four decades. It is now replaced by Environmental Stewardship, but many ESA agreements will remain in place for several years.

The main disappointment of the ESA is that more landowners did not take up the 'higher tier' options that help wildlife the most, and the overall picture was of continuing declines in breeding wading birds and other wildlife in the ESA outside nature reserves. Nonetheless, much of the management on nature reserves was made possible by ESA funding and has created showcases that increasing numbers of landowners are now adopting – see Yare Valley case study (right). Environmental Stewardship is now replacing the ESA. Uncertainties about funding are a concern; assuming these are resolved, the challenge for Environmental Stewardship will be to boost wildlife, not just maintain the status quo.

Debating point: do we waste money on dredging Broadland rivers?

Hundreds of thousands of pounds are spent on dredging Broadland waterways, to enable vessels drawing a metre or more to move safely. Many of these are diesel-powered – outdated, fossil-fuel burning, 20th century technology. Traditional Broadland wherries were working vessels able to carry tons of materials along undredged, shallow, reed-fringed rivers. Should we learn from the past for a more sustainable future? Why not combine the flat-bottomed wherry design with an electric engine?



Chris Gomersall (rspb-im.rspb.com)

Case study: land management in the Yare Valley

The Halvergate Triangle became a conservation cause célèbre in the 1980s when environmentalists tried to stop drainage of the area being improved so that farmers could more easily convert marshland to arable. It was a turning point: this national focus prompted the Broads Grazing Marshes Conservation Scheme, offering payment for wildlife-friendly farming. This was the precursor for one of the first Environmentally Sensitive Area (ESA) schemes, now part of Environmental Stewardship.

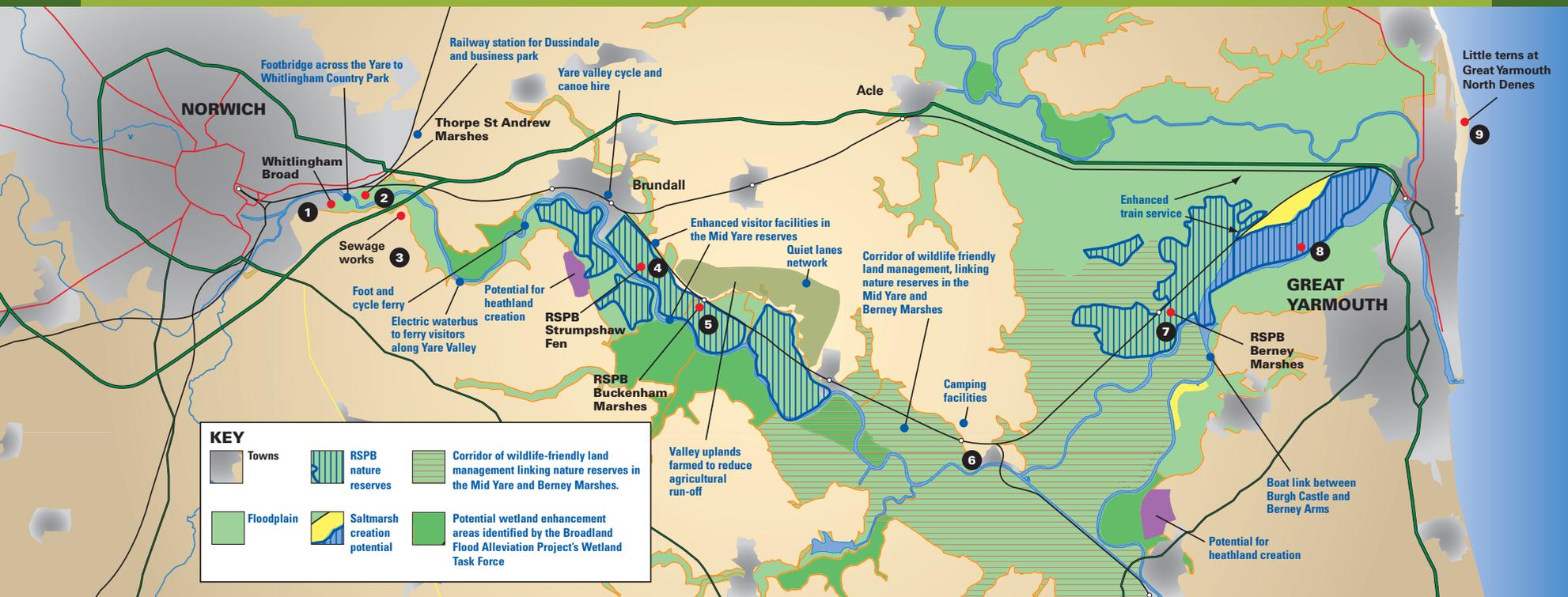
The ESA was mostly successful at keeping areas as grass but, in the early years especially, relatively few farmers took up the opportunity to create really wet grassland that would benefit birds and other wildlife. It did, however, help to fund initiatives by conservation bodies. The RSPB bought Berney Marshes on Halvergate and here, and at Buckenham and Cantley Marshes, started to demonstrate the wildlife benefits of creating wet grassland.

Happily, several neighbours have been sold on this blueprint, and the RSPB has been pleased to give advice to help make a network of improving wildlife sites in the Yare Valley. These include the Raveningham Estate, which has created a wetland on former arable land of which any nature reserve would be proud.

Beckhithe Farms, based at Reedham, has combined a successful beef enterprise with raising water levels and conservation management of the marshes. They provide livestock to graze RSPB grassland. More landowners are combining food production with a high quality environment.

Further joint working involving the Internal Drainage Board has set up a new water management system round the Halvergate Fleet.

This completes the full circle from the conflicts of the 1980s. This is the challenge of Broadland everywhere: to turn conflict to co-operation, to reverse decades of decline to a new sustainable future.



Managing for people and wildlife

The Yare Valley has a mix of nature reserves, wildlife-friendly farming and places for people. Can we build on this to benefit the environment and people?

Existing wildlife-friendly measures

- 1 Whitlingham Broad: field teaching here, a partnership between the Broads Authority, the RSPB and Whitlingham Charitable Trust, reaches 800 children a year, with scope for improved lifelong learning opportunities.
- 2 Thorpe St Andrew Marshes: a nature reserve will follow gravel extraction. An example of how

planning can help businesses, wildlife and people.

- 3 Whitlingham sewage treatment works: investment here means phosphates are stripped from sewage. A big step in the right direction for water quality, though more needs to be done.
- 4 RSPB Strumpshaw Fen: a focus for visitors in the Yare Valley. Bitterns are back and it's ideal for a quiet day out in the Broads.
- 5 RSPB Buckenham Marshes: a nature reserve accessible by train, as are RSPB Strumpshaw Fen and RSPB Berney Marshes. A step to encourage visitors by means other than the car.

- 6 Access on foot and by bike: railway stations give access to Wherryman's Way, Weavers' Way and the Yare Valley Cycle Route.
- 7 RSPB Berney Marshes: a nature reserve showing the wildlife benefits of creating wet grassland.
- 8 Breydon Water: wildlife spectacles attract visitors. Here, you can see tens of thousands of birds in autumn and winter.
- 9 Great Yarmouth North Dunes: one of Europe's biggest little tern colonies protected by the RSPB, Natural England and Great Yarmouth Borough Council. A summer attraction for visitors to the Broads area.

What could help in the future

- Yare Valley cycle and canoe hire.
- Electric waterbus to ferry visitors along Yare Valley.
- Valley uplands farmed to reduce agricultural run-off.
- Heathlands created on valley sides, acting as buffers to reduce run-off.
- Corridor of wildlife-friendly land management linking nature reserves in the Mid Yare and Berney Marshes.
- Footbridge across the Yare to Whitlingham Country Park.
- Enhanced visitor facilities in the Mid Yare reserves with railway bridge and moorings.
- Saltmarsh creation.
- Opportunities for wetland enhancement identified by the Broadland Flood Alleviation Project's Wetland Task Force.



Kevin Simmonds

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Our views on the Broads

Mike Barnes (right)

'Marsh orchids, swallowtail butterflies and the elusive bittern are just some of the rare species of flora and fauna to which the fragile landscape of the Norfolk Broads is home.

'The twisting fingers of the Norfolk and Suffolk Broads fan out across this hidden and mysterious corner of England. The largest wetland system in England, the Broads provide a gateway to tranquillity for lovers of the countryside and an inland paradise for boatmen. The Broads is also a delicate ecosystem, hosting the habitats of thousands of species. These often conflicting aspects mean that this wild and beautiful landscape needs sensitive, careful stewardship, a perpetual balancing act for the Broads Authority.

'Just as the spectre of climate change looms larger in the East of England than in most other parts of Britain, so the coasts and waterways of Norfolk lie most vulnerable. Sea level rise and an increased risk of flooding raise the threat of saltwater incursion. Difficult decisions need to be made about how we adapt to climate change; how we manage the land in the future; and how we look after precious environmental assets like the Broads both for wildlife and for a growing population to enjoy.

'For all of us who love the Broads, from those whose livelihoods depend on them or are derived from maintaining them, and for the increasing numbers taking peaceful refuge there away from the bustle of everyday life, there are real challenges ahead. This is, in every possible way, a living landscape that cries out to be understood, handled with care but above all to be managed, not only for endangered species like the bittern, but for people to continue to connect with this truly unique environment.'

Mike Barnes

Head of Natural Resources and Rural Policy, Government Office for the East of England



Nick Baker (right)

'I have many childhood memories of time spent outside. This was when I discovered birds and bugs (and mud!) for myself, and it's no secret that it has set the course for the rest of my life. When I was a child, many children spent hours and hours outside – you probably have memories like that too. It's getting harder and harder for children today to have the same opportunities. It may be concerns about child safety, the lure of the computer, and the lack of quality green space.

'It is essential that we look after amazing habitats like the Broads so that children can experience the natural world, enjoy healthy outdoors recreation and a chance to develop a lifelong love of wildlife. We may not be able to recreate the landscape and carefree adventures of Arthur Ransome's novels, but we should reverse the degradation of this valuable area to ensure a secure home for wildlife and a stunning legacy for the next generation.'

Nick Baker

President of RSPB Wildlife Explorers and RSPB Vice President

