



**Broads**  
National Park

## Broads Plan 2017

Partnership strategy for  
the Norfolk & Suffolk Broads

# The Broads

## A breathing space for the cure of souls

Norfolk naturalist Ted Ellis





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*Front cover photo:* Hairy dragonfly by  
Jordi Strijdhorst/Minden Pictures

*Page 1:* Thurne Mill by Chris Herring



## Foreword



The Broads Authority was established in 1988, to coordinate the management of land and water for people and wildlife in what we now know as the Broads National Park.

The Broads Plan is the strategy document that we use to direct and monitor our work, and the work of our partners, to protect and enhance the special qualities of the Broads. Every five years the plan is reviewed by the Broads Authority, our partners and anyone with an interest in the Broads, through a public consultation process, and a new plan is published.

The Broads Plan 2017 has eight themes, each of which integrates environmental, economic, social and cultural concerns. Climate change and economic development are two issues within the themes that have implications for us all.

The Authority and its partners have developed expertise in water and flood risk management over the last 30 years and this is being taken forward in the plan. There is a new focus on linking flood risk strategies for the Broads and the related coast, and developing a programme to help communities think about what they could do to adapt as our climate changes.

Broads tourism is vital for economic development in Norfolk and Suffolk. More than seven million visitors a year support thousands of jobs and contribute around £550m annually to the local economy. Over the next five years, we will work with partners to promote the national park brand and strengthen our position in local, regional, national and international markets, focusing on the attractiveness of the Broads for recreation on land and water.

The Broads Plan presents some big challenges, but also some exciting opportunities. There is a lot to do. I hope that everyone reading the plan will find something in it to inspire them and encourage them to support and even join us in looking after this very special place.

Professor Jacqui Burgess  
Broads Authority Chairman



# 1 Introduction

## 1.1 About the Broads

### Broads National Park

In this Plan, we are adopting the use of the term 'Broads National Park'. The Broads has an equivalent status to a National Park under the National Parks and Access to the Countryside Act 1949. The Broads Authority shares the same two purposes as the English, Welsh and Scottish<sup>1</sup> National Parks. In addition, it has a third purpose relating to the interests of navigation (see section 1.2). As such, it is defined under a different Act of Parliament to the other Parks, and has been referred to as a 'member of the National Park family'.

In 2015, the Broads Authority resolved to brand the area as the 'Broads National Park'. This has been done for marketing related purposes, to promote more clearly the area's national park credentials and special qualities<sup>2</sup>.

### Profile of the area

The Broads National Park is renowned as the UK's premier wetland and an important inland waterway. It is a proud member of National Parks UK, the umbrella body for the fifteen national parks in England, Wales and Scotland, known collectively as 'Britain's Breathing Spaces' – echoing the words of the late Norfolk naturalist Ted Ellis, who described the Broads as a 'breathing space for the cure of souls'.

A distinctive and globally important landscape, the Broads has been formed and nurtured by its inhabitants since at least Roman times. The Broads executive area (Map 1) covers around 303km<sup>2</sup> in Norfolk and North Suffolk. Its boundaries are drawn tightly around the floodplains and lower reaches of three main rivers – the Bure, Yare and Waveney – and their tributaries, the Thurne, Ant, Wensum and Chet. The Broads is the basin at the bottom end of the much larger Broadland Rivers Catchment (Map 2), with water flowing through or under it and out into the North Sea.

Home to around 6,350 people, the Broads nestles between the city of Norwich to the west and the coastal resorts of Great Yarmouth and Lowestoft to the east, with a short coastal strip at Winterton and a relict tidal estuary at Breydon Water. This low-lying, mainly open and undeveloped landscape is a rich patchwork of interconnected habitats including rivers, shallow lakes ('broads'), fen, reed bed, drained marshland, wet woodland, saltmarsh, intertidal mudflats and sand dunes.

Left: Kingfisher



In the 1950s Joyce Lambert deduced that the Broads were man-made, a discovery that transformed our understanding of the area

Each habitat has its own special characteristics and is home to a wealth of species, many rare and some unique to the Broads within the UK. The importance of the area is borne out by a range of international, national and local designations in recognition of its landscape, nature conservation and cultural features. Water, not surprisingly, is the vital element linking everything together in this wetland landscape, and its careful and integrated management is critical.

### Origins and history of the Broads

*"On the evidence now available, they (the broads) are, beyond reasonable doubt, the flooded sites of former great peat pits, made in the natural fenland in medieval times".*

JM Lambert, JN Jennings and CT Smith in 'The Broads', EA Ellis, 1965

The natural, cultural and built features of what has become one of the most beautiful and treasured of Britain's landscapes have been shaped over centuries by peat diggers, traders and merchants, reed and sedge cutters, thatchers, farmers and fishermen. The story of

<sup>1</sup> The Scottish National Parks have two additional purposes; namely, to promote sustainable use of the natural resources of the area, and to promote sustainable economic and social development of the area's communities.

<sup>2</sup> There is a point of distinction between the Broads Authority and National Park Authorities to which the so-called Sandford Principle applies (section 11A(2) of the National Parks and Access to the Countryside Act 1949 and section 9(6) of the National Parks (Scotland) Act 2000). In some circumstances, greater weight is to be attached to the conservation purpose. It does not apply in the Broads.

Map 1 Broads Executive Area



The Broads executive area, at around 303km<sup>2</sup>, sits at the end of the much larger Broadland Rivers Catchment (c.3200km<sup>2</sup>)

the Broads began in the Middle Ages. By the 12th century, much of east Norfolk had been cleared of its woodland for fuel and building materials. Over the next 350 years, peat digging (turf cutting) was a major industry. As sea levels rose, the diggings were eventually abandoned and left to flood, creating the shallow stretches of water now known as 'broads'.

Varying in size from tiny, isolated lakes to large expanses of open water, the broads became part of an extensive network for communications and commerce, transporting goods such as fuel, building materials including reed for thatch, and livestock and their products, especially wool. Villages and settlements commonly grew up around a parish staithe (landing stage), riverside common, ferry or bridge, making the most of the water environment.

The advent of the railways in the mid-19th century, and motor vehicles in the 20th century, brought most river-borne commerce to an end. In its place, the Broads waterways became increasingly accessible as a popular tourist destination for boating holidays, with more than

200km of navigable, lock-free rivers and open water bodies to be explored and enjoyed. Today, more than seven million people a year visit the Broads, supporting thousands of jobs and having an impact of around £600m for the local economy. Recreation and tourism, the marine industry, farming and land management all continue to play an important role in maintaining and enhancing this unique, much loved landscape.

## Valuing our natural resources

The Earth's store of natural resources - water, air, soil, geology and all living things - provides a wide range of beneficial goods, services and values, sometimes referred to as *ecosystem services*. This includes provisions such as food, fibre, fresh water and energy, and services such as clean air regulation, carbon storage and flood regulation.

continued on page 12

<sup>3</sup> Data refers to the Broads executive area and surrounding 'area of tourism influence'.

## Map 2 Broadland Rivers Catchment

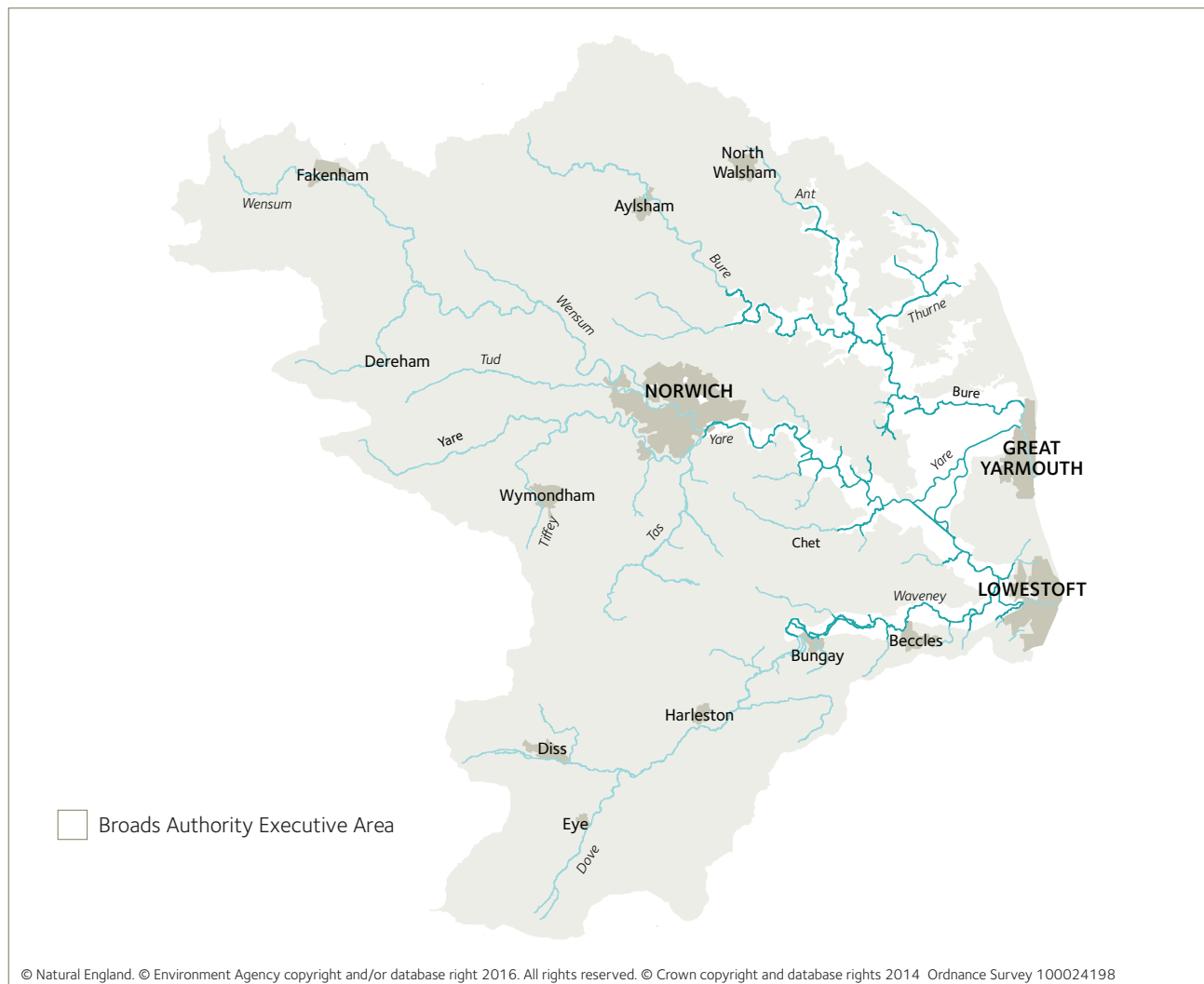


Diagram 1 Ecosystem services in the Broads

Renewable energy sources include wind, tidal water, biomass and wood

Grazing marsh and arable land, reed and sedge and woodland produce food and fibre

Grazing marsh, meadow and field margins provide nectar sources for pollinators and habitats for pest eating species

Clean, fresh water supports landscapes, biodiversity, industry and local communities

Wet woodland has significant value for reducing air pollution

Living, working landscapes are shaped by and support farming, reed cutting, the marine industry and tourism



As part of a global network of protected landscapes, the Broads National Park can demonstrate how wetland resources can be managed sustainably for people and wildlife. This illustration gives examples of the Broads ecosystem and the services it provides.



Reed, cover crops, coastal formations and intertidal habitats provide natural protection from flooding and soil erosion

Rocks, sediments, minerals, fossils, soils and landforms provide the supporting foundation for life

A mosaic of protected wetland habitats support diverse, rare and internationally important species

Former medieval peat diggings (the 'broads'), drainage mills and dykes reflect the historic character of the floodplain landscape

Undrained fen peatland locks in huge amounts of carbon, supporting climate regulation

Outdoor recreation, from boating and walking to wildlife watching, offer a breathing space for health, wellbeing and learning

Footnote: More information about the natural and cultural features of the Broads landscape may be found in the National Character Area profile: 80. The Broads (<http://bit.ly/2mzZeNW>), Natural England, 2015 and in the Broads Landscape Character Assessment, BA, 2017



Where land meets sea and sky: Hickling Broad, looking east toward the Norfolk coastline

As important are all the cultural values we get from nature – from recreation, inspiration and learning to jobs, community development and a sense of place. These services are supported by other natural functions such as photosynthesis, soil formation, vegetation growth and water cycling, all underpinned by biodiversity.

The Broads is like a huge mosaic; lose one fragment and its overall integrity will be flawed. In looking after it for present and future generations, we must seek to balance what is needed for a healthy, functioning natural ecosystem with the fair and sustainable use of the many benefits we get from it. Rather than focusing on single or favourable interests (for example, food production, flood protection or economic benefit), possibly at the expense of others, we should demonstrate a ‘better, bigger, more and joined’<sup>4</sup> approach to managing the area.

Putting a value on ecosystems and their services is highly complex, and not something we attempt to do in this plan. However, the UK Government’s emerging 25-year Environment Plan<sup>5</sup> highlights the need to get better at including environmental and societal costs, benefits and trade-offs in policy, investment and planning decisions. For example, as well as rewarding businesses for productive and sustainable land use, those that exploit natural resources should incorporate any external adverse costs to nature or society (such as chemical pollution in a watercourse, or loss of a public green space) within their own business costs, reducing the public cost of dealing with these impacts. As a member of the UK family of national parks and global network of protected landscapes, the Broads has a significant role to play as an advocate of healthy, sustainable living.

A major challenge for this easterly, low-lying freshwater wetland is likely to come from sea level rise and the projected more rapid changes to the climate, especially in terms of managing water resources and flood risk.

Another is how Britain’s decision to leave the European Union may affect what happens at a local level, particularly for farmland, habitats and species protected through European environmental and land management legislation. Changes in global, national and regional economies, leisure and tourism patterns, food and energy policy, and the growth in demand for housing and infrastructure in the East of England, will also create challenges and opportunities for the Broads landscape, wildlife and people.

We cannot predict exactly what this area will look like in 50 or 100 years’ time. However, if we can understand and respond now to the likely changes ahead, we can help build a future that maintains the Broads as a special, distinctive and much loved place.

## 1.2 Broads Authority

The Broads Authority is a statutory body with very similar responsibilities to those of the English, Welsh and Scottish National Park Authorities.<sup>6</sup> It is the local planning authority, and a harbour and navigation authority. The distinctive shape of the Broads executive area (Map 1) comes from its boundary being drawn tightly around the floodplains and lower reaches of the main rivers (Bure, Yare and Waveney) and their tributaries (Thurne, Ant, Wensum and Chet).

The Authority has a duty to manage the Broads for the following three purposes:

- Conserving and enhancing the natural beauty, wildlife and cultural heritage of the Broads;
- Promoting opportunities for the understanding and enjoyment of the special qualities of the Broads by the public; and
- Protecting the interests of navigation.

In practice, how much weight is given by the Authority to any of the purposes will depend upon the particular circumstances under consideration. In its commitment to integrated management, the Authority and its Broads Plan partners will always look for the potential win-win solution, rather than setting the different purposes at odds with each other.

In managing the area, the Authority must also have regard to:

<sup>4</sup> Making Space for Nature, Defra, 2010.

<sup>5</sup> 25-year Plan for the Environment, Defra (draft).

<sup>6</sup> The Broads Authority was established under the Norfolk and Suffolk Broads Act 1988. Further provisions for the management of the navigation area were made through the Broads Authority Act 2009.

- The national importance of the Broads as an area of natural beauty and one which affords opportunities for open-air recreation;
- The desirability of protecting the natural resources of the Broads from damage; and
- The needs of agriculture and forestry and the economic and social interests of those who live or work in the Broads.

The Authority also has the duty to maintain the navigation area for the purposes of navigation to such standard as appears to it to be reasonably required, and take such steps to improve and develop it as it thinks fit. It may



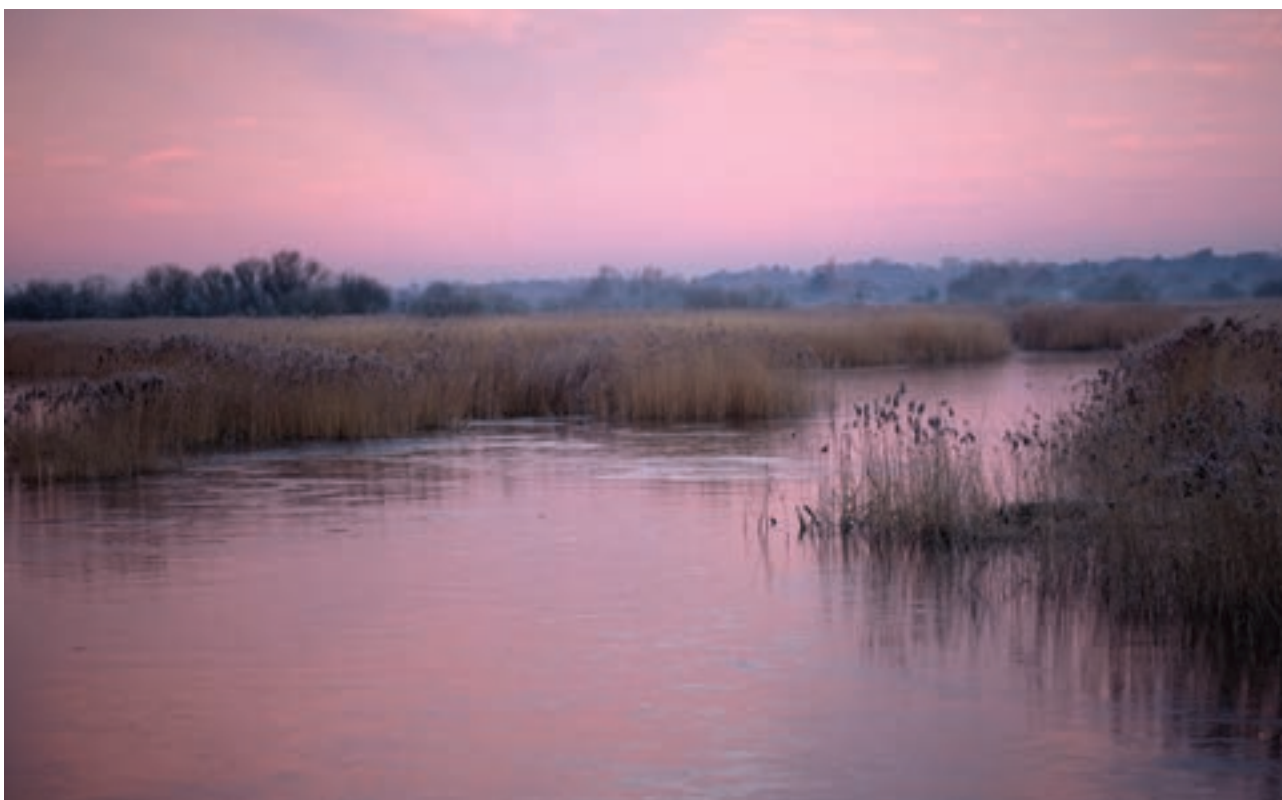
carry out works, and do other things in relation to any adjacent waters in or over which it has sufficient rights or interest, for the improvement of navigation on those waters.

### 1.3 Broads Plan

#### A partnership plan

The Broads Plan is the single most important strategy for the Broads. It sets out a long-term vision for the area, and shorter-term actions to benefit the environment, local communities and visitors. As a high level, overarching document it draws together and guides a wide range of partnership plans, programmes and policies relevant to the area. The Broads Plan is reviewed and updated on a regular basis. This plan covers the period 2017-2022.

A priority in the Government's *Vision for the English National Parks and the Broads*<sup>7</sup> is to work in partnership to make the best use of shared knowledge, efforts and resources. The Broads Plan is a plan for the Broads, not just for the Broads Authority: While the Authority is responsible for producing, championing and monitoring the Plan, many organisations and local interest, amenity and community groups are involved in its implementation. Lead and joint delivery partners are shown in the priority actions tables (Section 3), and a summary of their roles and responsibilities is in Appendix A.



Nature reserves at Ranworth Broad (Norfolk Wildlife Trust) and Strumpshaw Fen (RSPB)

<sup>7</sup> English National Parks and the Broads: UK Government Vision and Circular, Defra, 2010.

## Funding and resources

Since 2010, there have been substantial funding cuts to Government funded bodies working in the Broads, including the Broads Authority, Environment Agency, Natural England and local councils. The economic squeeze is also affecting local businesses and the voluntary sector, particularly those relying on public sector funding or contracts. There is also great uncertainty about the implications of Britain's decision to leave the European Union, following the Referendum in June 2016.

While aspirations are high, Broads Plan partners must be realistic within this economic and political framework. We will have to make focused and sometimes difficult choices about priorities for funding, and joint working will be more and more important. We will continue to foster our good track record of drawing in additional resources, for example through external grants, private sponsorship and visitor giving schemes.

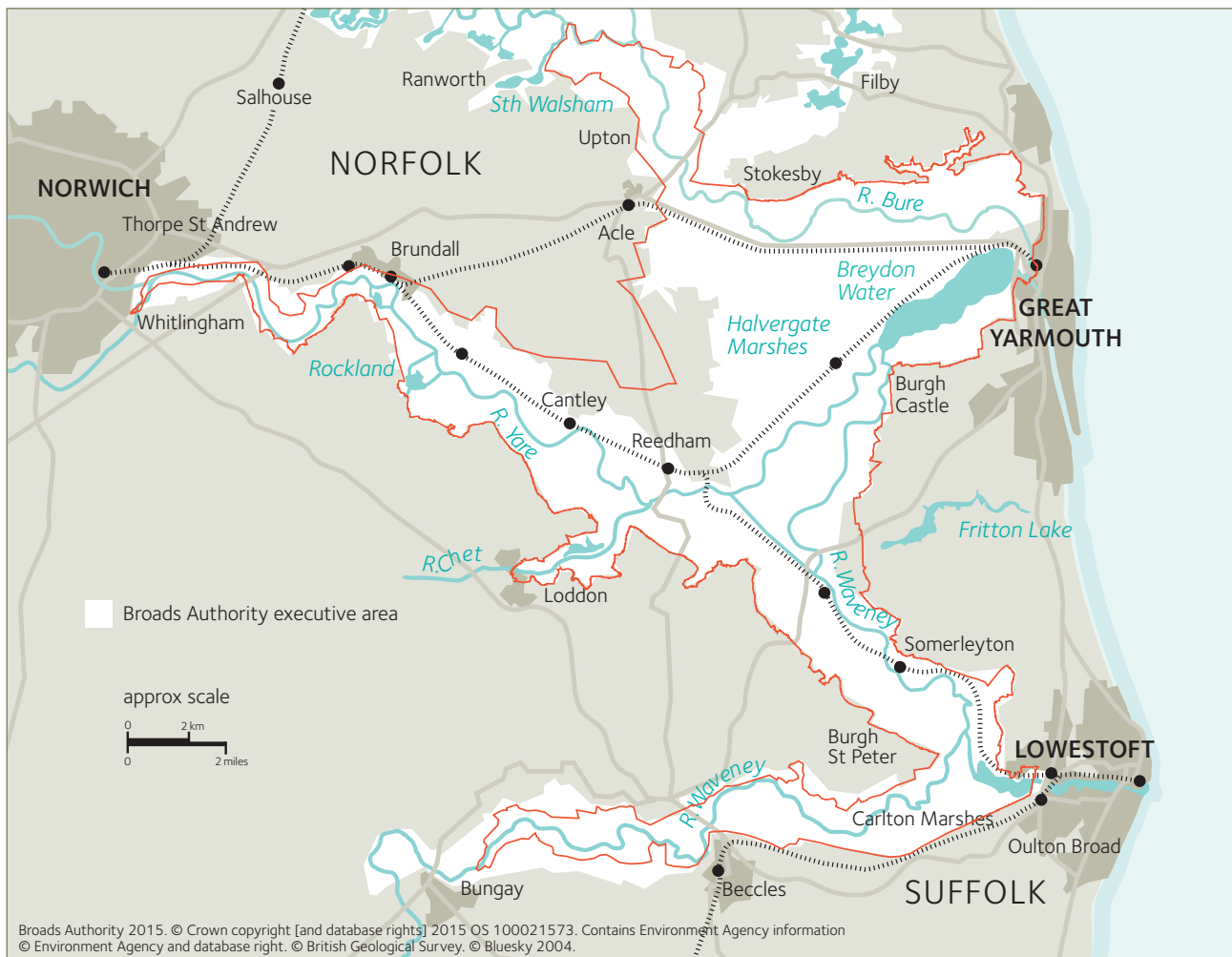
As the body responsible for managing the Broads, the Broads Authority receives a Government funded National Park Grant. Some financial stability has been created by

the awarding of a four-year grant settlement of £3.24m from 2016/17. The Authority also receives navigation income funded by boat toll payers (£3.09m in 2016/17). In the past three years, this income has come under pressure. While the number of private boats has been relatively static, there has been a continuing decline in the hire boat fleet. The number of weekly hire motor cruisers fell from 904 in 2011 to 789 in 2016, and the forecast is for further reductions. This is due partly to investment in new, larger boats and the retirement from the fleet of older, smaller vessels.

Significant external funding applications in this Plan period include a £2.6m bid to the Heritage Lottery Fund for the Broads Landscape Partnership Scheme, with a total programme value of £4.5m, and CANAPE, an EU bid with European partners for a Broads spend of €1.4m to implement the Hickling Vision. £4m has already been awarded from the HLF and EU LIFE funds towards the Hoveton Wetland Restoration Project.

The Broads Authority is a member of the UK's National Parks Partnerships, an initiative launched in 2016 to enable closer links between businesses and the Parks for

Map 3 Broads Landscape Partnership area





commercial and practical benefits. Resources are about people too, and a practical and invaluable asset for the Broads is the dedicated band of volunteers who provide practical support through a range of local organisations and community groups.

As a high level strategy, the Broads Plan does not include detailed costings. This information is in the guidance level strategies and operational programmes of the partners implementing the Plan.

## Assessment and monitoring

This plan was subject to **Sustainability Appraisal (SA)**, to assess any significant environmental, economic and social impacts of its implementation. The appraisal found that the majority of actions in the Plan show either ‘no significant effect’ or ‘positive effects’, with a small number showing ‘unknown impacts’. A **Habitats Regulations Assessment (HRA)** was also carried out, to assess the impacts of the Plan on conservation sites designated under the European Birds and Habitats Directives, and on sites designated under the Ramsar Convention (an international treaty for the conservation and sustainable use of wetlands). This concluded that the Plan had no ‘likely significant effects’, subject to modifications that have been made to the final Plan.

The Broads Authority will produce six-monthly progress reports on all actions in the Broads Plan. As a living document, we will report changes and new actions as we go through the Plan period. These updates will be reported to full Authority meetings (which are open to the public) and published on the Authority’s website. The

*Above: High’s Mill, one of the Halvergate mills being restored through the Broads Landscape Partnership Scheme*

updates will also go to Plan partners, and to the Broads Forum, whose membership represents a wide range of local interest, user and amenity groups in the area.

Indicators are shown against individual actions in the Plan. In some cases, we refer to monitoring measures in linked plans and programmes (see Appendix B). We also have a small set of overarching ‘State of the Park’ indicators (Appendix C). These help assess change in the Broads over time, and will be updated and reported in line with the Broads Plan 5-year review cycle.

### 1.4 Broads Local Plan

As the local planning authority, the Broads Authority is responsible for setting planning policies for the Broads executive area. The policies support the Vision for the Broads and aspirations of the Broads Plan. They are used in determining planning applications and providing guidance on development and land use. As a number of the adopted policies are now out of date, or no longer in line with national planning policy, the Authority is reviewing them all and preparing a new Broads Local Plan. This is scheduled for adoption in 2018, and will take us up to 2036. The existing policies remain in effect until the new Local Plan is adopted.

The special qualities of the Broads can also be influenced by development in adjoining areas, particularly given its narrow boundary and low-lying, open landscape. Under the Localism Act<sup>8</sup>, the Authority and its neighbouring planning authorities, county councils and public bodies have a ‘duty to cooperate’ to make the most of cross-boundary planning matters such as housing, transport, open space, and demands on water and other resources.

<sup>8</sup> Localism Act, Department for Communities and Local Government, 2011.



## 2 Vision and principles

### 2.1 Long-term vision

The Vision for the Broads National Park recognises the abundant benefits we get from a healthy, functioning natural environment. It is based on Defra's 2010 *Vision for the English National Parks and the Broads* and updates the *Vision for the Broads* in the last Broads Plan (2011).

### 2.2 Principles

Three fundamental principles help guide the development and implementation of the Broads Plan. The first is based on the definition of the Precautionary Approach in the Rio Declaration on Environment and Development, 1992. The second recognises the need for integrated, long-term management, and the third underlines the importance of informed partnership working.

#### Principle 1

Where there are likely threats of serious or irreversible damage to the environment, as a precaution, cost-effective measures are taken to prevent environmental degradation in the absence of full scientific certainty of the outcome of such threats.

Such precautionary action is based on assessment of the costs and benefits of action, taking into account both the proportionality between the costs and benefits and the degree of certainty in their calculation, and transparency in decision making. Gaps in knowledge are addressed by research and, where feasible, precautionary measures taken while such knowledge is outstanding.

#### Principle 2

We seek to understand and respect the complexity and biological limits of our ecosystems, and conserve their structures to maintain their health and productivity. Management is at a local scale, while recognizing the direct or indirect effects on wider, interconnected ecosystems and the public goods and services they provide. We manage for long-term, multiple benefits, not just for short-term or single interest gains.

#### Principle 3

We plan and work in partnership to make the best use of shared knowledge and resources and to avoid duplication of effort. People are involved from an early stage, and throughout, in decisions that may interest or affect them. Decisions are supported with robust evidence, including scientific and local knowledge, innovation and best practice.

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Left: White water lily, a symbol of clean water

## Vision for the Broads National Park to 2030

The natural environment and the beneficial goods, services and cultural values it provides, from food and energy to landscape character and recreation, are in good condition, are used fairly and sustainably, and are valued by society. In particular, the precious nature of clean, fresh water as a fundamental resource is understood and respected by all.

The past and present importance of the waterways for navigation, biodiversity and recreation is recognised and cherished, and the asset is protected, maintained and enhanced. Wildlife flourishes and habitats are maintained, restored, expanded and linked effectively to other ecological networks. Land and water are managed in an integrated way, with local and landscape scale management creating resilience and enabling flexible approaches to meet changing environmental, economic and social needs.

This living, working, 'big skies' landscape is notable for its natural beauty, distinctive local character and historic significance. People of all ages, abilities and circumstances experience and enjoy it as a place of escape, adventure, enjoyment, work, learning and tranquillity, and as a source of national pride and identity. Sustainable living can be seen in action and there is a buoyant rural economy. Local communities are taking an active part in decisions about their future and are known for having been pivotal in the transformation to a low carbon, 'climate-smart' society.

The Broads National Park will be forever recognised as fundamental to our prosperity and to our mental and physical health and wellbeing. It will be forever treasured as a place that provides a "breathing space for the cure of souls".



## 3 Priority partnership actions 2017-22

This section sets out guiding actions for the five-year period of this plan. It is not a comprehensive list of all the work to be carried out in the Broads, including many routine operations. Rather, it addresses key strategic

issues that partners have identified and are able to commit time and resources to over the life of the Plan. See Appendices A and B for details of partners, links and abbreviations in the following tables.

Themes	Headline aspirations	Page
<b>A</b> Managing water resources and flood risk	<b>Aspiration 1</b> Improve water capture and efficient water use across the Broadland Rivers Catchment, and develop a longer-term integrated flood risk management strategy for the Broads and related coastal frontage	21
<b>B</b> Sustaining landscapes for biodiversity and agriculture	<b>Aspiration 2</b> Protect, conserve and enhance water quality and land and habitat condition to benefit priority species, recognising natural environmental change and retaining a thriving and sustainable agricultural industry	25
<b>C</b> Maintaining and enhancing the navigation	<b>Aspiration 3</b> Apply a catchment-scale approach to reduce sediment input and the sediment backlog, and sustainably reuse or dispose of dredged material  <b>Aspiration 4</b> Maintain a safe, open navigation and reduce pressures on busy or vulnerable areas	31
<b>D</b> Conserving landscape character and the historic environment	<b>Aspiration 5</b> Improve understanding, protection, conservation and enhancement of the Broads landscape character and distinctive built, cultural, archaeological and geological assets	37
<b>E</b> Offering distinctive recreational experiences	<b>Aspiration 6</b> Provide opportunities for distinctive recreational experiences in harmony with the special qualities of the area	43
<b>F</b> Raising awareness and understanding	<b>Aspiration 7</b> Strengthen and promote key messages and tourism offer in keeping with the area's status, special qualities, history and traditions	47
<b>G</b> Connecting and inspiring people	<b>Aspiration 8</b> Support development growth within and adjacent to the Broads, while avoiding adverse impacts on the area's special qualities  <b>Aspiration 9</b> Strengthen connections between a wide audience, particularly local communities and young people, and the Broads environment	51
<b>H</b> Building 'climate-smart' communities	<b>Aspiration 10</b> Build the awareness and adaptive capacity of local communities to the challenges of climate change and sea level rise	55

*Left:* Local farmer Richard Wright, winner of the 2014 Ian MacNichol Award for an outstanding contribution to wildlife conservation on farmland



## A Managing water resources and flood risk

### Context

› The groundwater, rivers and shallow lakes, or 'broads', in the Broadland Rivers Catchment are an essential water source for people, wildlife and landscapes. Adequate water levels, and water directed to the right places, are primary to the healthy condition and functioning of our wetland habitats, navigable waterways, farming and other water dependent businesses, and for providing public drinking water and water for irrigation. Water management and land use practices in the whole catchment, most of which lies outside the Broads Authority's executive area, have an impact on the Broads, which forms the basin at the bottom of the catchment. Recognising the importance of building a more integrated approach to managing our water resources, the Broadland Catchment Partnership was formed in 2012, with a shared vision and plan of action for the whole catchment.

› More than half the rivers in the catchment have been physically modified, often as a result of historic flood defence, land drainage or milling activities. While this has provided some social, economic and environmental benefits, it has adversely affected water dependent habitats and increased downstream flood risk in some areas, with water in the catchment ultimately flowing through, or under, the low-lying (at or below sea level) Broads and out to sea. Predicted drier summers, wetter winters and more intense periods of rainfall will affect surface water levels and the seasonal variability in river flows and groundwater resources. Water levels in some cases are too high for agriculture or too low for wildlife and amenity; periods of drought, such as that in early 2012, can create significant problems for water availability. Abstraction of water for domestic and agricultural use has risen in recent decades, and will be impacted further by a changing climate and by significant development growth and regeneration around the Broads.

› Flooding is a natural and sometimes beneficial process within a floodplain, and the control of water has been a major influence on the form of the Broads landscape for many hundreds of years. However, in the wrong places or at the wrong times flood water can damage property, infrastructure, habitats and farmland, and cause distress to people and wildlife. Around 95% of the Broads is at some risk of flooding. This includes more than 2,000 properties, around 30,000 hectares of

farmland, and mainly freshwater habitats. Sea level rise, and the predicted more rapid changes to the climate, pose enormous challenges to the future of this easterly, low-lying and predominantly freshwater wetland. Higher sea levels along the north-east Norfolk and north Suffolk coast bring an increased risk of sea defences being overtopped or breached. This can also hold back water trying to drain from the rivers, causing flooding to natural and built resources. Even if the river defences protect land from flooding, a combination of particular weather conditions, and high tides causing a surge in the North Sea, can push salt water higher up the rivers and into the surrounding wetland.

› The Environment Agency manages flood risk from the main rivers, estuary and the sea, and is responsible for river and tidal flood defences. Norfolk and Suffolk County Councils are the Lead Local Flood Authorities, managing flood risk from surface water, ordinary watercourses and groundwater. Water and sewerage companies manage the risk of flooding to water supply and sewerage facilities and the risk to others from the failure of their infrastructure, and Internal Drainage Boards manage land drainage in lowland areas. These organisations also have a role to play in encouraging communities to participate in flood risk management at their local level.

› Flood and coastal risk management in the eastern half of Norfolk incorporates three separate major flood defence systems: The Broads (tidal and fluvial), Eccles to Winterton (coastal), and Great Yarmouth (tidal). In recent years, millions of pounds have been spent on maintaining and improving these defences in line with the individual strategies for these areas. The strategies were all initiated over 20 years ago and, while those for Eccles to Winterton and for Great Yarmouth have been reviewed, the policy remains the same; that is, to hold the existing defence lines and to improve the defences where appropriate.

› Our focus now is to look more closely at the relationship between the three strategies, and identify the best longer-term, integrated approach to flood and coastal risk management for the whole of Broadland.

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*Left:* Washlands in the right place can benefit wildlife and agriculture, and offer some flood protection. In other areas, a higher degree of flood defence is needed. (Bittern; Waveney Valley floodplain; Disrupting channels to reduce water run-off from arable fields)

*Right:* The Trinity Broads supply public drinking water to Great Yarmouth and local villages



For the Broads, the current intention is to seek to retain the mainly freshwater conditions for as long as practicable, with research being focused on what this would require.

› In January 2014, the Broads Authority resolved that: “(Tidal) surges pose a critical threat for both Broads communities and the protection of the very precious freshwater ecology that makes the Broads so special. We recognise the considerable amount of investment made in flood protection and stress the importance of preventing salt water and saline intrusion.”



Waxham, Norfolk: Recharging the beach replaces sand and shingle lost to erosion

### Long-term aim

The precious nature and value of water is respected by all, and there is a unified and fair approach to its management and use. We have met the challenging targets to improve water quality, water supply and flood protection through widespread understanding, positive action and good practice at catchment and local scale. Rivers function more naturally and the catchment supports a diversity of healthy habitats and species. Water dependent wildlife is thriving and able to move around freely. Managers of land and water resources are using environmentally, economically and socially sustainable practices and are working together to provide multiple benefits for wildlife and people. Longer-term decisions to address the impacts of climate change and sea level rise are informed by robust evidence and wide ranging debate on the most appropriate management options: Primarily, whether to find ways that allow natural processes to direct change, or to seek to retain a predominantly freshwater system; and the levels of human intervention and expenditure to adapt important assets to new regimes. Importantly, the Broads will remain a special area, retaining its wildlife and heritage importance and continuing to offer extensive recreation, employment and other socio-economic opportunities.

## Aspiration 1 Improve water capture and efficient water use across the Broadland Rivers Catchment, and develop a longer-term integrated flood risk management strategy for the Broads and interrelated coastal frontage

**Focus** Improving water capture, efficient water use and ‘water smart’ user awareness in the catchment to help build resilience to future change

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
1.1	Promote and implement best practice water capture and water use measures at a community level, and support a ‘whole farm’ water management approach across the Broadland Rivers Catchment	Water efficiency measures (incl. increasing domestic water metering, practical support and incentive schemes), and planning policy for water efficiency measures in new development, in place and promoted to domestic and business water users [AW, ESW, non-domestic water retail companies, LPAs]	Partners	Water company business plan targets
		On-site (and where feasible, low cost) water capital infrastructure promoted and in place, incl. rainwater harvesting/water recycling, irrigation reservoirs, efficient irrigation systems; water retention and infiltration measures in place, incl. constructed wetlands, field bunds, tramline disruption and management [BCP, AW, ESW, county FWAGs]	Funded schemes (WSF, CSF), water capital grants	WSF targets, CSF water capital grant data, RDPE reporting measures

1.2	Promote and implement catchment measures to manage water resources and respond to periods of water shortage and scarcity (incl. abstraction controls, water transfer and trading, infrastructure improvements)	Sustainable water abstraction licensing policies in place throughout Broadland, as outlined in Broadland Catchment Abstraction Management Strategy [EA]	CAMS + EA Abstraction Licensing Strategies	CAMS indicators of resource availability, WFD hydrology status
		Water Resource Management Plans, Drought Plans and Water Industry National Environment Programme action plans implemented where applicable in the Broadland Rivers Catchment [AW, ESW, EA]	AW/ ESW (AMP7), EA (Area Drought Plans)	AW/ESW targets, EA action plan targets

**Focus Managing flood risk and developing a longer-term framework for action**

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
1.3	Maintain current coastal, tidal and fluvial flood risk management strategies relevant to the Broads, Great Yarmouth and interrelated coastal frontage, and prepare a longer-term, integrated, strategic approach	Detailed short-term strategies evolved for Eccles to Winterton, and Winterton to Lowestoft Ness, that support Shoreline Management Plan (SMP) and Broads flood risk management needs [EA, CPE]; Broadland Flood Alleviation Project maintenance phase completed in line with agreed schedule [EA/BESL]	EA/ BESL, CPE; partner resources required	SMP targets, BFAP schedule targets to 2021
		Updated Flood Risk Supplementary Planning Document adopted [BA, EA, NCC]; Strategic Flood Risk Assessment completed for the Broads [LPAs, EA, NCC]	Partners	# planning apps approved contrary to EA flood risk advice (BA)
		Updated and expanded flood risk research and modelling commissioned, carried out and published (arising from flood management high level review <sup>9</sup> ), incl. risk and impact assessments of natural floodplain restoration and saline incursion [EA, Broads Climate Partnership, academic institutions]	EA and partners to seek joint resources	Outline action plan by end 2017; 6-monthly review reporting
		Medium to long-term integrated flood risk strategy for the Broads, Great Yarmouth and related coastal frontage developed through evidence building (informed by SFRA and HRA) and widespread stakeholder engagement [EA, IDBs, LAs, Broads Climate Partnership]	EA; partner resources required	To be agreed
1.4	Investigate, plan and promote schemes to hold back or divert flood water, moving from retrospective to proactive approaches	Surface water flooding mitigation measures and advice promoted and implemented through county Surface Water Management Plans (SWMPs); strong development management policy and guidance made available on installing, upgrading and retrofitting sustainable urban, highways and rural drainage [NCC, SCC, IDBs, LPAs]	NCC, SCC (SWMPs)	Area SWMP targets
		Flood risk management mapping, feasibility studies and project proposals developed in upper Broadland catchment; site projects implemented (e.g. reconnecting rivers with floodplain in non-tidal areas, re-meandering river channels) [EA, IDBs, BCP, landowners]	Funded schemes (EA Grant in Aid, CS, CFMP)	To be agreed

<sup>9</sup> Flood management high level review for the Broads, Eccles to Winterton and Great Yarmouth Tidal Walls, produced by CH2M, 2016.



## B Sustaining landscapes for biodiversity and agriculture

### Context

› The Broads is one of Europe's finest and most important wetlands for nature conservation. Its rich mosaic of habitats comprises, among other things, saltmarshes, intertidal mudflats, shallow lakes, fens, drained marshland, wet woodland, relict estuary and coastal dunes. Twenty-eight sites covering a total of more than 7500 hectares are nationally designated as Sites of Special Scientific Interest (SSSIs). Most of these sites are of international importance for their habitats and wildlife as the Broads Special Area of Conservation (SAC) and the Broadland Special Protection Area (SPA). An area of the wetland is also designated as a Wetland of International Importance under the Ramsar Convention<sup>10</sup>. One third of the SSSIs are also National Nature Reserves.

› The focus of *Biodiversity 2020*, the national strategy for England's wildlife and ecosystem services, is on halting the overall loss of biodiversity, supporting healthy well-functioning ecosystems, and establishing coherent ecological networks, with more and better places for nature for the benefit of wildlife and people. While global conventions and national legislation provide an existing framework for the protection of water, biodiversity and geodiversity, it is not yet clear what leaving the European Union may mean for nature in the UK, in particular for sites and species currently protected and restored through European environmental legislation and funding (e.g. Common Agricultural Policy, Habitats and Birds Directives, and Water Framework Directive).

› Farming and land management play an important role in maintaining and enhancing our ecosystems and the services they provide, from food, fibre and renewable energy (such as biomass and anaerobic digestion) to biodiversity, local landscape character and employment. The local agriculture is primarily a mix of livestock grazing and some arable cropping, with grassland being the dominant feature in the floodplain. Globalisation, new legislation and management expectations are putting pressure on farming businesses, and many have to diversify to survive. Agricultural support in recent years has moved away from food production subsidies to supporting landscape and species management and wider public benefits from local land in agricultural production.

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*Top left:* Thanks to a successful translocation project, the almost extinct Fen Raft Spider is thriving again in Norfolk. It is the UK's largest spider

*Top right:* Reed and sedge cutting has been a Broads industry for generations, helping shape the natural and built landscape

*Bottom:* Hickling Enhancement Project: Mud pumping is used to recreate land lost to erosion and to restore habitat

*Right:* Grazing in the Waveney Valley

› Reed and sedge cutting remains a traditional local and sustainable industry, supporting biodiversity, landscape character and cultural heritage. The local product is in great demand, and more commercial reed and sedge beds need to be brought into sustainable management. Improvements in funding, the availability and training of labour, and affordable housing are also key factors in sustaining this industry.

› Good quality water is defined as clear, low in nutrients and free of harmful substances. It is characterised by a rich diversity of aquatic plants and supports healthy populations of fish, invertebrates and water birds. The Broads restoration programme has been active for more than 30 years. It leads the UK in developing lake restoration projects to recreate clear water conditions with healthy aquatic plant growth that provides habitat for wildlife. However, despite significant improvements in water quality in recent decades, monitoring in 2013 showed that all Broads water bodies and river reaches, and more than 90% of rivers in the Broads catchment, were failing European Water Framework Directive targets. At times, some groundwater and river sources exceed drinking water standards for nitrate and pesticides.

› Water quality continues to be affected by diffuse pollution (primarily phosphorus and nitrogen from domestic waste water and farmland) and by erosion causing sediment release. Other contributory factors are physical modification of water courses, dissolved oxygen and fish populations, coastal saline drainage water and salt tides, and competing or over demand for water use. Voluntary actions in recent decades, such as environmentally sensitive farming, sustainable drainage systems and environmentally friendly boating practices, should continue to improve water quality. We know that water and water-related habitats have a tendency to change over relatively short periods of time, and are seeking to better understand their ecological and hydrological functioning so we can put the best management regimes in place.



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<sup>10</sup>The Ramsar Convention is an international treaty for the conservation and sustainable use of wetlands. It is also known as the Convention on Wetlands.

➤ The Broads is a UK priority wetland area<sup>11</sup> with the largest expanse (around 75%) of species-rich calcareous fen in lowland Britain. Most fen sites are designated for nature conservation, and around 60% are owned or managed by conservation organisations. The Fen Ecological Survey (2010) showed clear evidence of loss, fragmentation and decline in some areas, and enhancement of large areas through agri-environment support. The Broads Land Management Service has recently been established to offer support to landowners and site managers, and targeted restoration projects and management regimes are helping to retain priority fens as open landscapes. The Broads has the most extensive tract of wet woodland (particularly alder carr) within Eastern England. It is of international significance and, where not designated, may be at risk from drainage, and from loss due to development. Around 40 million tonnes of carbon are stored by the wet woodland and fen peat habitats. They will continue to capture and store carbon under appropriate water level and land management conditions.

➤ Grazing marsh covers around 40% of the Broads. Some areas attract large and internationally important numbers of breeding and non-breeding birds, and there is a substantial area of internationally important dyke communities. The marshes provide a third of East Anglia's cattle grazing land, and local farmers and graziers rely on environmental land management support to optimise profit and protect the habitats. Threats to these habitats include loss to arable reversion and land drainage (partly due to the lack of long-term agri-environment schemes), development, water level regimes, flooding, drought, salt tides, and invasive species.

➤ There are more than 11,000 recorded species in the Broads. These includes 26% of all UK BAP priority species and 17% of all nationally notable or scarce species. Sixty-six species are restricted entirely to the Broads or rarely seen elsewhere in Britain. Iconic species include the bittern, marsh harrier, otter, fen orchid, Norfolk hawker dragonfly and the entire UK populations of the swallowtail butterfly, dotted footman moth and holly-leaved naiad. Some species are in decline or on the brink of survival. Many species, including Broads specialists, face challenges from increases in seasonal variability in river levels and depleted groundwater resources, salinity from land drainage and tidal flooding, nutrient enrichment and pollution of the waterways, habitat loss and fragmentation, and increasing threats from invasive non-native species.

➤ Species recovery and translocation programmes can take substantial time and resources, as can biosecurity measures. Some gains have been made in the increased populations of wintering water birds around Breydon, fen raft spider, otter, bittern, crane and marsh harrier, and in the control of invasive species such as floating pennywort and American mink, but much more needs to be done.



Welsh mountain ponies graze wetter sites in the Broads

### Long-term aim

Biodiversity is understood, recorded, protected and enhanced in keeping with the status of the Broads as a globally important wetland, and within recognised limits of natural or inevitable environmental change. Sustainable land and water management and agri-environment practices support well-functioning ecosystems that provide multiple public benefits; this includes flourishing wildlife, food and fibre, fresh water supply, carbon storage, energy, pollination, disease and pest regulation, landscape character and recreation.

Management of habitats and species is approached on a catchment, whole landscape scale. Opportunities are pursued to buffer, connect, create and recreate habitat areas to establish more, bigger, better and more joined up ecological networks and increase resilience and adaptation to change by habitats, species and society. Priority species and their specific water and land management needs are understood, recorded and managed to maintain and enhance species of conservation concern and halt biodiversity decline and loss. Invasive non-native species are under control and eradicated where possible. Robust and integrated soil and water management is recognised as vital for agriculture, water quantity and quality, and for reducing greenhouse gas emissions. The importance of the food supply chain is embraced and the need for a profitable agriculture sector to maintain biodiversity is recognised. Well-informed evidence and monitoring guides our understanding and decision making in all aspects of natural resource management.

<sup>11</sup>UK BAP priority species and habitats were those identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP).

**Aspiration 2** Protect, conserve and enhance water quality and land and habitat condition to benefit priority species, recognising natural environmental change and retaining a thriving and sustainable agricultural industry

Focus Restoring, maintaining and enhancing water quality to achieve 'good' ecological status/potential				
Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
2.1	Carry out lake restoration, maintenance and enhancement works, incl. bio-manipulation; use monitoring evidence to trial and implement further innovative lake restoration techniques	In-lake restoration, maintenance and enhancement works scoped, in development and carried out at priority sites in accordance with Broads Lake Restoration Strategy <sup>12</sup> and Broads Lake Review <sup>13</sup> , incl.: (a) Hoveton Wetland Restoration Project [NE]; (b) Hickling Enhancement Project [BA, NWT]; (c) Review and forward plan for Upton Broad and Barton Broad [BA, NWT]	(a) External funding secured (b) Partners; additional resources required (c) Partners	SSSI site condition targets, EA statutory monitoring data, total area (ha) under restoration
		Pre- and post-work monitoring undertaken of Hoveton, Trinity and Hickling lake condition status, and evidence being used to trial and implement further innovative restoration techniques as part of Lake Restoration Action Plan [NE, BA, EA, ESW] and Diffuse Water Pollution Plans [NE, EA]	Partners	Broads Lake Restoration Strategy and Diffuse Water Pollution Plan targets
2.2	Promote and implement measures to reduce point and diffuse pollution into the floodplain and water courses, commensurate with EU/national water and habitat targets and with sustainable farming	Tailored environmental land and water management measures and support (incl. payments) taken up by land managers (through Countryside Stewardship (CS), Catchment Sensitive Farming (CSF), Campaign for Farmed Environment (CFE), Water Sensitive Farming (WSF), water company schemes, other externally funded project initiatives, etc.) [BCP coordination]	BCP partners; funded schemes (CS, CSF, WSF, CFE); additional resources required	CS/WSF targets, CSF water capital grant targets, WFD/SSSI/SAC/ Nature 2000 targets
		Point and diffuse pollution reduction measures undertaken through Diffuse Water Pollution Plans and Asset Management Plans [NE, EA, AW, ESW]; infrastructure promoted, trialled and implemented (e.g. phosphate stripping from Water Recycling Centres, constructed wetlands and reed beds, bio-beds, combined sewer overflow works); measures taken up by businesses and communities (e.g. septic tank maintenance, first time rural sewerage); saline water into Brograve drainage investigated and remedial works in place [NE, EA, AW, ESW, IDBs]	Partners	# first time rural sewerage schemes in catchment (AW), # CSO pollution events in catchment (EA/AW)



Otter, marsh harrier, Southern marsh orchid, swallowtail butterfly

<sup>12</sup>Lake Restoration Strategy for the Broads, Broads Authority, 2008.

<sup>13</sup>Broads Lake Review, Broads Authority, 2013.

**Focus** Managing existing fen, reed bed, wet grassland and wet woodland, in accordance with priorities and principles in Broads Biodiversity and Water Strategy

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
2.3	Maintain and enhance existing areas of priority fen, reed bed, grazing marsh and wet woodland through site management agreements/ prescriptions and support services to site managers	Water management control measures implemented and advice and support made available and taken up by land managers, incl. Halvergate Fleet and Muckfleet schemes [IDBs, NE, BA, RSPB, ESW, landowners]; innovative work on management of catch dykes developed and implemented [NE]	Partners; Grant in Aid + additional resources required	% priority habitat in CS, SSSI condition assessment targets
		Fen and reed bed stewardship agreements, management prescriptions and best practice in place at priority sites, applying site-specific techniques, incl. grazing, commercial reed and sedge cutting for thatch, long-rotation conservation cutting, conversion of cut material to biomass and soil improvers, and turf ponding [BBP coordination, delivered through Broads LMS, BRASCA, landowners]	Funded schemes (CS, CSF), external grants, statutory partners	Area (ha) under management agreement
		Grazing marsh stewardship agreements, management prescriptions and best practice in place at priority sites (commensurate with Broads NCA description and agri-environment schemes), applying site-specific techniques, incl. grazing livestock at suitable densities and timings, foot drain creation, rush control and appropriately timed hay-silage cutting [BBP coordination delivered through Broads LMS, BRASCA, landowners]	Funded schemes (CS), IDBs, additional resources required	Area (ha) under management agreement
		Nature conservation activities implemented under Broads Landscape Partnership Scheme Programme 5: Natural Landscapes [Broads LPS Board and delivery partners]	HLF LPS (funding bid)	Broads LPS target data for HLF



Still a rare sight in the UK, in recent years the Broads has been centre to a natural return of the common crane, an iconic wetland bird

2.4	Define, implement and monitor management regimes for priority species and invasive non-native species	Targeted species recovery/ support programmes implemented, incl. research and species translocation action where appropriate (e.g. fen raft spider, fen orchid, lesser whirlpool ramshorn snail, grass-wrack pondweed) [BBP, Highways England]	Conservation grants in place; additional resources required	Distribution of breeding wader populations, # new sites for bittern and swallowtail, priority INNS removed/ controlled to manageable background level
		Invasive non-native species (INNS) monitoring regimes and awareness campaigns in place; data made available on present/potential threats and biosecurity plans/ control programmes in place where threats are highest (e.g. mink, Floating Pennywort) [NNNSI]		

**Focus** Extending and creating new areas of high biodiversity value habitat, habitat networks and buffer zones within the Broads catchment

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
2.5	Create 'bigger, better and more joined up' areas of priority habitat by identifying opportunities and developing site-specific plans for new habitat areas, connections, buffer zones and pollinator networks	Potential/opportunistic areas of new priority habitat, wildlife corridors and extended/ new field buffer strips identified and added to existing mapping; tailored on-site measures, advice and support made available to and taken up by landowners/managers, particularly in identified high value areas [BBP coordination, delivered through Broads Land Mgt Service, BCP, NCP, landowners/managers]	Partners	# investment plans completed (e.g. econets mapping), # landowners involved with Broads Land Mgt Service
		Landscape-scale initiatives developed and implemented, incl. NWT/SWT Living Landscapes projects in Suffolk Broads, Upper Thurne, Bure and Ant, RSPB Broads Futurescapes and LIFE Little Tern projects [NBP, BCP, other partners]; recreational pressure mitigation and management strategies in place to extend and protect biodiversity value of sites [NBP, NCP, NSPG]	Partner resources + secured external funding	Individual project delivery targets
2.6	Improve partnership coordination and communication of Broads biodiversity monitoring and research efforts, linked to national biodiversity network	Through research and monitoring, impacts of habitat management and manipulation techniques determined and findings coordinated/shared. Priority research areas: Fen ecology and water levels and quality; Prymnesium ecology and mitigation of impact on fish; Pollutant inputs; Impacts of drought, flooding and salinity (e.g. UCL salinity study); Creating markets for fen materials; Impacts of connectivity, stressors and their interaction on freshwater habitats [BBP as research coordinator/facilitator, BA, EA, NERC Hydroscape]	University, conservation and research grants	# published papers/ research reports
		Community-based research and monitoring activities implemented under Broads Landscape Partnership Scheme Programme 1: Interpreting the Landscape and Programme 3: Learning and Future Skills [Broads LPS Board and delivery partners]	HLF LPS (funding bid)	Broads LPS target data for HLF



## C Maintaining and enhancing the navigation

### Context

› The Broads is an extensive and varied inland waterway system, offering 200km of boating on lock-free, meandering tidal rivers. The Broads Authority's executive area (Map 1) comprises approximately 1974ha of water space and 63 permanently open water bodies, covering 843 ha. Many of these water bodies are 'broads' in the traditional sense, having been formed from peat diggings. Others are of more recent or different origins, such as at Whitlingham County Park, developed on the site of a gravel quarry. Some broads have public navigation rights, other have more limited access, generally for environmental or land ownership reasons, and some are landlocked and inaccessible to craft. The navigation area reaches from the quiet headwaters of the rivers Bure, Ant and Waveney to the bustling urban centre of Norwich and the coastal resorts of Great Yarmouth and Lowestoft.

› As the harbour and navigation authority, the Broads Authority is responsible for maintaining the navigation area. Its powers include health and safety provisions, dredging, management of vegetation, clearance of wrecks and other hazards, maintaining the network of free 24-hour moorings and providing a Ranger Service. It also has a duty to sign and mark the waterways. Sediment management guidelines, agreed aquatic plant cutting prescriptions, water space management plans and environmental standard operating procedures all help to maintain the navigation, while also protecting and conserving the unique and important water plant communities, and providing refuge and food for fish and birds.

› Dredging is carried out to provide reasonable depths for safe navigation, and to help restore degraded or shallowing water bodies. It also helps improve water quality by removing excess nutrients in the mud, reducing turbidity and creating depth for aquatic plants to flourish and stabilise the bed, and by providing greater capacity for water storage. Dredging the waterways and disposing of dredged material is the largest navigation maintenance cost to the Authority. The current budgeted target to remove 50,000m<sup>3</sup> of material per year, twice the estimated sediment input, is making a positive but limited impact on the backlog in the system.

› Riverbank erosion is a key sediment source, caused by wind, tidal action and boat induced waves and feral geese. Land use and soil and vegetation type on riverbanks and uplands are also contributory factors, with headwaters contributing around 50% of sediment inputs. A whole catchment approach to sediment management is being used to reduce the amount of sediment entering the

system from higher up the Broadland Rivers Catchment, as well as removing it from the Broads waterways.

Finding ways to dispose of dredged material is a constant challenge. Many historically available sediment disposal sites are protected under European environmental legislation, and opportunities for using adjacent land have been very limited in recent years.

› We will continue to seek sustainable and new approaches to manage sediment, taking account of its value for agriculture, habitat creation and flood protection, and reusing it beneficially wherever possible. Considerable advances were made through the recent EU-funded PRISMA<sup>14</sup> project, which trialled new dredging techniques, pioneered methods for the reuse of dredged material in island and habitat recreation schemes, and investment in new dredging plant and equipment. Building on this success, the Authority and its partners are pursuing external funding to carry out more projects with multiple benefits for navigation, conservation and recreation.

› Thriving aquatic plants are part of a healthy ecosystem, and certain species are protected under the EU Habitats Directive and the Wildlife and Countryside Act 1981 (as amended). Recent years have seen increasing plant abundance in the Broadland rivers, particularly in the upper reaches, smaller isolated broads and sites away from the navigable system; plants in the larger broads connected to the river system are typically slower to respond to improving water quality.

› In a connected waterways network like the Broads, the cost and effort of tackling the spread of certain aquatic invasive non-native species, such as floating pennywort and the 'killer shrimp' (*Dikerogammarus villosus*), is a huge and ongoing challenge. Practical work tends to focus on preventing the arrival of new species, and on controlling established species that most impact on the use of navigational and recreational waterways or the conservation interest of key sites.

› Opening up new areas of navigable water space may help to reduce potential conflicts between different user groups, improve safety, and ease pressure on busy areas. Opportunities to do this have been very limited in recent years, tempered by voluntary restrictions to certain areas of the water space that provide key refuges for wildlife, by other environmental or land ownership issues, and by a lack of resources. However, an audit of existing and potential new navigation water space is planned, and schemes and agreements will be developed where opportunities arise.

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Left: The Broads Authority's Ranger and Operations teams work throughout the year to keep the navigation open and safe, and to maintain the landscape

<sup>14</sup>PRISMA: Promoting Integrated Sediment Management project, 2011-14

› Safe, responsible behaviour on the waterways, and the technical safety of boats, are managed day-to-day through the Authority’s Ranger Service. Their work is supported by byelaws, codes of conduct and good practice, including public events such as Super Safety Days and the ‘Wear It’ lifejacket campaign. Safety standards on the waterways are high, although speeding, and people falling while getting on and off boats, are commonly reported problems. The Authority, emergency services and Coastguard work closely together to respond to incidents. Local policing partnerships also promote a proactive approach to reducing marine crime, such as the theft of outboard motors.



### Long-term aim

The historic and present importance of the Broads waterways for navigation, biodiversity and recreation is recognised and valued. The navigation and associated riverside facilities and infrastructure are maintained and enhanced, offering opportunities for people of all ages and abilities to access and enjoy the water space. The variety and intensity of waterborne activities across the system are managed carefully to maximise safe enjoyment, minimise conflict between different users, and ease pressure on busy or vulnerable areas. Opportunities to expand and extend the navigable water space are pursued, consistent with nature conservation interests and water resource management.

Sediment is managed to provide necessary depths for boating, with dredged material reused or disposed of in environmentally and economically sustainable ways. Sediment loss from agricultural land and bank erosion is minimal, with sustainable natural and constructed solutions used to protect the more vulnerable stretches of waterways. Bankside vegetation and water plants are managed in ways that keep waterways open to navigation, do not impact on the ecological or archaeological integrity of sites, and provide for appropriate recreation. Restrictions on navigation due to bridges is minimised and mitigated wherever possible.

### Aspiration 3 Apply a catchment-scale approach to reduce sediment input and the sediment backlog, and sustainably reuse or dispose of dredged material

Focus Reducing sediment input to the Broads system and accelerating sediment removal				
Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
3.1	Implement dredging regimes in accordance with defined waterways specifications, and seek resources/legislation to accelerate the removal of sediment in the Broads system	Annual dredging programme implemented in accordance with defined waterways specifications and agreed targets [BA]	BA	Vol. sediment removed (min 50,000m <sup>3</sup> pa); % compliance with waterways specs
		Additional resources in place to support sustainable sediment management; appropriate inland waterways legislation and good practice for dredging and disposal processes developed, in place and shared [BA, AINA, MMO]	Additional resources sought	Secured additional funding, up-to-date legislation and guidance

Above: The water may look inviting but is always cold, with underwater hazards and fast currents, and boaters are encouraged to wear buoyancy aids

3.2	Implement plans and good practice guidance to reduce soil erosion into the waterways, manage areas lost or vulnerable to erosion, and dispose of dredged material in sustainable and beneficial ways	Best practice land management techniques to reduce erosion promoted and in place, e.g. increased cover crops, buffers and sustainable drainage, riparian fencing, soil organic improvements, soil compaction reduction [NE, EA, BCP, NRT, county FWAGs]; up-to-date environmental good practice guidance promoted to recreational users [AINA, BA, BC, NSBA]	Funded schemes (CS, CSF, CFE, WSF), partners	SSSI condition assessments, WFD EC status, CFE records
		Stretches of lost or eroded riverbank/island identified and prioritised for restoration; land protection, creation and restoration strategies in place, using innovative sediment reuse techniques where possible [BA as lead/facilitator, partners]. Key project: Formal partnership agreement and feasibility study/work plan in place for long-term management of River Chet (true left bank) to maintain access to navigation and Wherryman's Way [BA, NCC, SNC, EA, NE]	Partners; additional resources required	Condition status of Chet true left bank; other targets to be agreed
		Strategic approach taken to identify sustainable options for additional dredging disposal sites/capacity as part of Broads-wide network, also seeking environmental gains, and appropriate permissions and resources secured [BA]	BA; additional resources required	BA annual operations data



Left top: Discussing ways to reduce soil erosion on farmland  
 Left bottom: Dredging with a long reach JCB 360° excavator  
 Right: Land and habitat restoration at Salhouse Broad (top) and Duck Broad



Top and left: Having fun on the water  
Above: Swinging rail bridge at Somerleyton

**Aspiration 4** Maintain a safe, open navigation and reduce pressures on busy or vulnerable areas

**Focus** Maintaining, extending and expanding navigable water space for recreation, consistent with conservation interests and flood risk management

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
4.1	Maintain existing navigation water space and develop appropriate opportunities to expand or extend access for various types of craft	Audit of existing and potential new navigation water space completed; schemes and agreements developed to enhance water space access, consistent with nature conservation interests and flood risk management; access to closed broads dealt with on basis of current legal advice, and opportunities created to negotiate increased access [BA, landowners]	Partners	Broads IAS action plan targets
		Increased use of River Yare for commercial transport promoted, with waterways specifications adopted and implemented as required [BA, Norwich CC, GYBC]	Partners	To be agreed
		Network Rail Delivery Plan developed for refurbishment/replacement of Somerleyton and Reedham swing bridges, including secured funding and agreed design and mitigation measures [NR, BA]	Network Rail CP6 Delivery Plan	NR CP6 Delivery Plan schedule met

**Focus Maintaining and improving management of aquatic plants and riverside trees and scrub**

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
4.2	Carry out appropriate aquatic plant cutting and tree and scrub management programmes and seek resources to increase operational targets	Annual tree and scrub management regimes carried out in accordance with agreed navigation, nature conservation and other criteria, using priority mapping; improved level of operations in place through BA Area Ranger Team strategies for partnership working [BA, community groups, landowners]; annual regimes for aquatic plant cutting in navigation channels carried out in accordance with agreed criteria [BA]	BA; additional resources required	Length riverbank & navigation channels meeting agreed criteria, annual plant monitoring data

**Focus Maintaining, improving and promoting safe behaviour on the waterways**

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
4.3	Implement, promote and monitor measures to maintain and improve safety and security for the navigation and boats	Boat safety measures in operation, incl. up-to-date Safety Management System and Boat Safety Scheme; Hire Boat Code part 2 transferred to local licence conditions; temporal or spatial zoning agreements/ protocols and pilot schemes in effect as required for water sport activities and events, incl. water skiing, wakeboarding, power boat racing and competitive rowing [BA]	BA	PMSC external audit (safety levels within ALARP region)
		Navigation patrolling maintained; recreational user safety and security promotional events and guidance made available; up-to-date navigation infrastructure inspection and maintenance regimes in place and completed to agreed annual schedules [BA, NC, SC, NWSF]	BA, NC, SC	NPA (BA) indicators and targets



Above: Water skiing takes place in zoned areas



Right: Plant cutting in navigation channels; Rangers carrying out boat safety checks



## D Conserving landscape character and the historic environment

### Context

› The low-lying, interconnected wetland habitats of the Broads follow the edges of level, open marshland and valleys drained by three principal rivers and their tributaries. This is a living and working landscape, influenced over thousands of years by patterns of human existence. The Broads Landscape Character Assessment<sup>15</sup> summarises the physical processes that have shaped the landscape we see today. It identifies 13 distinct landscape types, from coastal dunes and tidal estuary to peat fen, carr woodland and settlement fringe. Within these, there are 31 individual character areas, each one with a unique combination of landscape features and elements.

› The shallow lakes we know as ‘broads’ are manmade, originating as medieval peat diggings for fuel, making the Broads one of England’s most extensive industrial monuments. A long history of controlled drainage is evident from the drainage mills, raised and embanked rivers, and dykes. The location and pattern of villages and settlements have been dictated largely by historic social and economic need, with groupings often round a parish staithe<sup>16</sup>, riverside common, ferry or bridge, with isolated churches on the surrounding uplands.

› The significant built heritage value of the Broads is recognised in the designation of 25 Conservation Areas and the scheduling of 14 Ancient Monuments and more than 270 Listed Buildings. Much has been achieved to protect, conserve and enhance our historic and cultural assets, and the number of Listed Buildings at risk was reduced by 50% between 2011 and 2015. However, there is still gradual erosion in the condition, quality and distinctiveness of the built environment, with 10% of listed buildings still ‘at risk’. Among the most vulnerable assets are more than 70 drainage mills, an iconic and visible feature in the flat landscape. Many of these structures are isolated, inaccessible and in a deteriorating condition. The evolving Local List of Heritage Assets,

and the preparation of individual mill action plans, are providing important evidence for action. This information has already helped to secure development funding from the Heritage Lottery Fund for the ‘Water, Mills and Marshes’ Landscape Partnership Scheme (LPS), to support a range of local heritage projects. Help is also needed to preserve, restore and use historic Broads craft, including the trading and pleasure wherries. The LPS will add to the ongoing efforts of local groups and trusts who work hard to maintain the heritage fleet. A recent update on the history, type and rights of staithe, another local waterways feature, will be used to help guide planning policy and heritage design.

› Other important aspects of the area’s heritage are also in danger of being lost if not recognised, protected and supported. The Broads has been identified by Historic England as a site of Exceptional Waterlogged Archaeology, but many of its archaeological features remain hidden and vulnerable to changes in water levels, development and other land use pressures. Traditional craft industries such as reed and sedge cutting, thatching and millwrighting remain a small but important part of life and landscape management in the Broads but are struggling to survive, as are other local traditions, crafts and cultures.

› The geodiversity of the Broads is an understated aspect of its natural heritage. There are five nationally designated sites (covering Pleistocene geology and active coastal processes), but many other identified sites of interest lack designation and hence protection at County level. Drying out of wetland and oxidation of peat can lead to loss of finite environmental and archaeological archives as well as release of stored carbon. Other risks include coastal protection work that alters the dynamics of marine erosion and sediment transport, and the wider impacts of climate change.

› A sense of tranquillity, dark skies and wildness gives the area much of its character and appeal. Visual disturbance and noise and light pollution, from both within and outside the Broads, can have an undesirable impact. Tranquillity mapping by the Campaign to Protect Rural England places most of the Broads at the ‘most tranquil’ end of the spectrum. The Broads Authority’s own dark skies survey in 2015/16 showed that parts of the Broads have ‘intrinsic dark skies’, the darkest areas being Hickling and Geldeston, making the Broads eligible for Dark Sky accreditation. Measures to protect and enhance tranquillity, dark skies and wildness are being encouraged

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*Top left:* Polkey’s Mill, c.1880, restored to working condition by the Norfolk Windmills Trust

*Top right:* Millwright repairing floor joists

*Bottom:* Contemporary waterside design

*Page 38 Top:* Broads habitats: Broads and rivers, wet woodland, reed bed and grazing marsh

*Bottom:* Waterside bungalows are a distinctive feature in the landscape, and a number are listed as local heritage assets

*Page 39 Top:* A head for heights is essential for a millwright!

*Page 39 Bottom:* For the first time in 50 years, weavers are using harvested rushes from the River Waveney to make traditional products such as baskets and carpet

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<sup>15</sup>Broads Landscape Character Assessment, Broads Authority, 2017.

<sup>16</sup>A staithe is land adjacent to a waterway that local inhabitants are entitled to use to moor boats and load and unload goods.





through planning policy and design guidance, and through initiatives such as reducing boat engine noise, zoning activities like water skiing and power boat racing, and undergrounding overhead electricity distribution cables. Having said that, it is recognised that it is the bustling

activity in some areas of concentrated holiday or leisure development, such as Wroxham and Potter Heigham, which gives these areas their particular character and supports the local economy and communities.

### Long-term aim

The Broads is maintained as a dynamic, unique and special landscape with its own sense of place and historic significance. The key physical, historic and cultural elements of landscape character are recognised, understood, retained, reinforced and actively managed, while allowing the landscape to continue to evolve and reflect the interactions between people and nature. Traditional and heritage industries such as boat building, agriculture, thatching and millwrighting thrive and wider local traditions, skills, crafts and oral cultures are maintained, recorded and celebrated. Archaeological sites and historic built and cultural assets are recorded, protected and enhanced, halting further

degradation and loss and contributing to the integrity of the landscape. The built environment continues to reflect the activities of people living and working in the Broads, embracing traditional and innovative design compatible with the local landscape character and with the needs of social and economic stability and growth. The Earth heritage features of the Broads are recognised and protected and people understand the evolution of our environment over deep time. The sense of tranquillity, wildness and dark skies is protected and enhanced for people to enjoy. At the same time, the bustling nature of some areas is supported and enhanced, in keeping with the overall character of the Broads and the needs of its communities.

## Aspiration 5 Improve understanding, protection, conservation and enhancement of the Broads landscape character and distinctive built, cultural, archaeological and geological assets

Focus Protecting, conserving and enhancing the distinctive landscape character and historic assets of the Broads				
Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
5.1	Implement measures to protect, conserve and enhance the distinctive landscape character and historic assets of the Broads	Comprehensive Heritage at Risk Register and Broads Local List of heritage assets in place; thematic surveys of local assets for inclusion on National List carried out [HE, BA, parish councils]; management plans and planning guidance in place for 'at risk' Broads Local List assets, incl. drainage mills and riverside chalets, rolled out to all Broads HAR assets [BA, HE, NCP, mill trusts, asset owners/ developers]	Partner funding; HE/BA heritage team advisors	# new asset groups added to Local and National Lists, # completed asset mgt plans in place for 'at risk' assets
		Built heritage activities implemented under Broads Landscape Partnership Scheme Programme 3: Learning and Future Skills and Programme 4: Historic Landscapes [Broads LPS Board and LPS delivery partners]	HLF LPS (funding bid)	Broads LPS target data for HLF
5.2	Produce, update and promote local landscape conservation action plans, appraisals and enhancement schemes	Broads Landscape Conservation Action Plan produced and informing Broads Landscape Partnership Scheme, development management and updating of the Broads Landscape Character Assessment [Broads LPS Board, BA]	HLF LPS (funding bid)	Broads LPS target data for HLF
		Up-to-date Conservation Area designations and guidance in place; 'villagescape' enhancement plans (e.g. neighbourhood plans, village design statements) identified and developed where appropriate [BA, LAs, parish councils]	Partners	Complete set of Conservation Area designations

5.3	Develop measures to investigate, record and protect local built and cultural features, archaeology and potential hidden heritage (incl. waterlogged assets, waterways history, settlement patterns, WWII remains)	Investigation and interpretation activities implemented under Broads Landscape Partnership Scheme Programmes 1: Interpreting the Landscape, 3: Learning and Future Skills, 4: Historic Landscapes, and 5B: Natural Landscapes [ <b>Broads LPS Board</b> and LPS delivery partners]	HLF LPS (funding bid)	Increased evidence base, published management plan
		Evidence base and policy developed to improve understanding and protection of the Broads exceptional waterlogged archaeology; management plan developed [BA, NCC, SCC, HE, NGP]	Partner resources; additional resources required	To be agreed
5.4	Implement and promote measures to conserve and enhance local geodiversity sites and assets across identified work areas in Norfolk Geodiversity Action Plan	Conservation of five geological SSSIs supported [ <b>NE</b> ]; priority designation programme for candidate Norfolk County Geodiversity Site in the Broads funded and taken forward [ <b>NGP</b> ]; literature and web-based information produced and promoted, focusing on links between environmental history and climate change, and between local settlement and geological resources [ <b>NGP</b> ]	Partners	Norfolk GAP action plan targets

#### Focus Developing and supporting land management skills and local heritage industries

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
5.5	Expand the longer-term resource of land management and heritage construction and maintenance skills training and qualifications	Activities implemented under Broads Landscape Partnership Scheme Programme 3A: Heritage Construction Skills Training and Programme, and 4: Historic Landscapes, and scope developed for longer-term provision of training and apprenticeship opportunities [ <b>Broads LPS Board</b> and LPS delivery partners, Construction Industry Training Board]; vocational skills training and work experience opportunities made available [ <b>BEEN, FE providers</b> incl. Norwich City/ Easton and Otley/ Lowestoft/ Great Yarmouth colleges, BA]	HLF LPS (funding bid) HLF partners, BA, CITB, BEEN partners & FE providers, BIS/ BEIS	Broads LPS target data for HLF, # trainees and work experience participants in target schemes
		Advice and practical support made available to local reed and sedge cutters, including equipment, contracts and training initiatives [BA, BRASCA]	Partners	BRASCA Action Plan targets

#### Focus Reducing the adverse impacts of visual intrusion, noise pollution and light pollution within and adjacent to the Broads

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
5.6	Build on measures to reduce the impacts on the Broads of visual intrusion and noise and light pollution, and pursue potential for dark sky place status	Scheduled Broads undergrounding wires programme implemented (Share Marshes, Horsefen Marshes 2017/18, South Walsham 2018/19, Cantley by 2020); Applications developed for Beccles Marshes, Share Marshes, Potter Heigham (for delivery 2018/19) [ <b>Ofgem/UK Power Networks, BA</b> ]	OFGEM	Individual scheme schedules and targets
		Broads dark sky mapping assessment and monitoring in place, and application progressed/ achieved for Dark Sky Place accreditation for the Broads [ <b>BA</b> ]	BA, CPRE	Dark Sky GIS mapping, Dark Sky Place accreditation status



## E Offering distinctive recreational experiences

### Context

› The Broads is a member of National Parks UK. More than seven million people a year visit the area to enjoy a range of outdoor activities from boating, walking, angling and cycling to wildlife watching, photography, and visiting historic and cultural assets such as mills and churches. The area has more than 200km of inland navigable, lock-free waterways and 303km of public rights of way, including three county long distance trails and part of the national England Coast Path trail. The Norfolk and Suffolk coast, and urban centres that include Norwich, Great Yarmouth and Lowestoft, also provide opportunities for open access and recreation.

› There are more than 11,000 licensed boats using the Broads, most privately owned, in all shapes and sizes from small canoes and rowing boats to large motor cruisers and commercial passenger vessels. The hire boat industry, while experiencing a gradual decline in boat numbers since 2010, remains a significant part of the Broads economy. Diversification and improvements in environmental and quality standards, largely in response to changes in traditional holiday patterns and visitor needs, have been crucial to its ongoing survival. Over the past five years, there has been an increasing trend within both hire and private fleets towards bigger boats, particularly motor boats. Conversely, canoeing and rowing are increasingly popular, with the BA boat census recording a rise in small boat movements of around 60% since 2010. Sailing for pleasure, including competitive racing, has been part of the way of life in the Broads since the 19th century, and remains integral to the landscape. These activities are in keeping with the philosophy of quiet recreation, and they rely on good access to and onto the water, shore side facilities, and an emphasis on attracting young and new users to waterways activities.

› Angling is another major contributor to the local and regional economy, and the Broads offers some of the best coarse fishing in England. Key areas of management focus in the Broads Angling Strategy (2013) are fisheries management and ecology, access to the water's edge, information and environmental education, and urban fishery development. Taking the strategy forward will, however, require new sources of funding and strong partnership working between the Environment Agency, Broads Angling Strategy Group and other interests. Wildfowling and other field sports also make a contribution to recreation, conservation and land management in the Broads.

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Left: 'Messing about in boats' always appeals in this magical waterland, and there are also plenty of land-based activities to enjoy

› Land-based recreation ranges from the passive, such as simply sitting at a riverside viewing point admiring the view, to more active pursuits such as cycling, horse riding or visiting local amenities and sites of interest. Recent visitor surveys confirm that walking is extremely popular, and the area benefits from circular or short distance walks to long distance trails including the Angles Way, Weavers Way and Wherryman's Way. Recent additions to the Norfolk/England Coast Path have brought a National Trail to the Broads for the first time. However, significant reductions in local authority budgets in recent years are having an impact on rights of way and footpath maintenance programmes.

› The appeal of the local wildlife, notably birds, is seen as highly relevant to boosting visitor demand throughout the year, and access to core areas is provided by a range of organisations and individuals. There is always a need to resolve the potential conflict between visitor activity that could damage fragile habitats or disturb wildlife, and opportunities to access and appreciate these special places. In terms of wider access, a lack of visibility of the water and wetland to land-based visitors sometimes means they do not experience the true essence of the Broads, and the rivers and extensive drainage channels can mean long diversions to reach crossing points such as bridges and ferries.

› Proposals to improve access to and around the Broads, linked to destination points, services and sustainable transport, were identified following an audit of existing resources. Upgrading and extending moorings and land access often depends on gaining realistic landowner agreements, and on having sufficient resources, both to carry out projects and maintain the overall network in the longer term. The majority of visitors to the Broads still arrive by car, which can increase seasonal traffic congestion and demand for parking, and create the wrong impression to visitors who expect the Broads to be tranquil. Access, transport and local plans identify the need to promote investment in public transport improvements, including walking and cycling facilities, seasonal bus services, and boats between visitor hubs.



Hire cruiser

## Long-term aim

The value of the Broads as a place for escape, adventure, enjoyment, inspiration and reflection for people of all ages and abilities is recognised and treasured. The area continues to offer a wide range of high quality, distinctive and memorable activities and events on water and on land, in suitable locations and in harmony with the special status and qualities of the Broads National Park and its communities. The long-standing tradition of boating remains integral to the Broads recreational offer, alongside other popular pursuits of angling, walking, cycling and experiencing the rich natural and

cultural assets of this wetland landscape. Year-round tourism is managed at environmentally and socially sustainable levels, contributing to a thriving local economy and secure employment base and meeting green tourism business standards. Physical access on land and between land and water is managed sensitively to maximise the social, educational and health benefits of open space to all, while ensuring the resource itself is not degraded. Where possible, improvements have been made to the network, connectivity and use of access routes, linked to visitor destination points and sustainable transport.

## Aspiration 6 Provide opportunities for distinctive recreational experiences in harmony with the special qualities of the area

**Focus** Maintaining and enhancing the integrated physical access network to and around the Broads and between land and water, linked to visitor facilities

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
6.1	Develop and implement schemes to upgrade and improve the network of access points and routes (where adverse effects can be prevented), linked to visitor facilities and including easier access for people with mobility and sensory needs	Updated audit completed on land access to Broads viewpoints (access from moorings to facilities, services and public transport links, and across rivers and to/alongside water, access for people with mobility and sensory needs); projects to improve/create access developed and implemented [BA, NCC, SCC, RWSP]	Partners; additional resources required	Broads IAS targets, County ROWIP targets
		Improved and new small craft launch facilities in place, linked to craft hire points and published trails [BA, boat hire operators]; existing BA 24-hour free mooring network maintained and new moorings/ stopping points (incl. wild/quiet moorings and commercial moorings) in place at priority locations [BA]	BA; additional resources required	BA maintenance & repair /10-year repiling targets / Broads IAS targets
		County Cycling and Walking Action Plans and initiatives implemented; new /upgraded priority cycle routes and cycle hire provision schemes developed (incl. Three Rivers Way cycle route and Norfolk Trails) [NCC, SCC, BA, RSPB/SE]; improved, safe circular horse riding routes identified, implemented and promoted through County Rights of Way Improvement Plans (ROWIPs) and Broads Integrated Access Strategy (IAS) [NCC, BA]	Partners & partnership schemes	County ROWIP targets, coastal path sections completed by 2020, Broads IAS targets,
		River Wensum Strategy (RWS) implemented to improve access and facilities to and alongside river (incl. new moorings, small craft launch facilities and footpath improvements linking Norfolk Trails through Norwich to the Broads) [Norwich CC, BA, EA]		RWS action plan targets

Right: Broads Village at the Royal Norfolk Show

		Physical access projects implemented under Broads Landscape Partnership Scheme Programme 2: Exploring the Landscape, incl. landscape/mills trail and access improvements to Weavers Way and Wherryman's Way [ <b>Broads LPS Board</b> and LPS delivery partners]	LPS partners; HLF (funding bid)	Broads LPS target data for HLF
6.2	Implement measures to improve the network provision of riverside facilities, incl. refuse and recycling services, electric power points, water and pump out	Working agreements established and improved strategic network of refuse and recycling facilities in place across the Broads [ <b>BA, LAs</b> , local industry]; network of solar and electric boat charging points maintained and extended [ <b>BA</b> ]	Partners	GIS mapping data

**Focus Coordinating and implementing a year-round programme of activities relating to Broads themes, products and places**

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
6.3	Maintain, develop and promote a coordinated and year-round programme of activities (taking measures to prevent any adverse environmental impacts)	Broads presence promoted through annual and year-round programme of events, incl. Broads Outdoor Festival, Outdoors in the Broads, Walkability, Royal Norfolk Show, community festivals and seasonal events [ <b>BT, BA, DMOs, NGOs</b> ]	Partners; additional resources required	# and spread of events; visitor attendance at targeted events
		Water-based opportunities promoted to land-based recreational users (incl. boat trips and day boat hire) and vice versa (incl. walking and cycling offer); high profile wildlife experience/cultural heritage/dark skies itineraries, events and packages created and promoted, linking into nearby coastal, city and town visitor offers [ <b>BT, BA, HBOs, TBs, WCOs, LAs, NGOs</b> ]	Partners, New Anglia LEP	Boat trip numbers; boat movements (BA census), # new itineraries/packages
		Recreational activities implemented under (a) Broads Landscape Partnership Scheme Programmes 1-6, in particular 'Gateways to the Broads' and 'Going the Extra Mile' [ <b>Broads LPS Board</b> and LPS delivery partners] and (b) Hoveton Wetland Restoration Project [ <b>NE</b> ]	(a) HLF funding secured; (b) funding secured	Broads LPS target data for HLF; Hoveton project targets
6.4	Implement Broads Angling Strategy action plan through partnership working and securing of additional resources	Secured additional resources and partnership agreements for angling in place and Broads Angling Strategy Action Plan implemented [ <b>EA, BAT, BASG, community groups</b> ]	EA; additional resources required	Broads Angling Strategy targets





## F Raising awareness and understanding

### Context

› Tourism is a major product in the local economy of the Broads National Park and wider economy of the East of England, bringing in nearly £600m a year and supporting more than 7200 jobs (full-time equivalent). The attractions of the Broads also recognise the significant appeal of the surrounding area. This includes the historic city of Norwich, the bustling market towns of Beccles and Bungay in the Southern Broads, the popular seaside resorts of Great Yarmouth and Lowestoft, and the sweeping stretches of the North Norfolk coast, part of which is designated as an Area of Outstanding Natural Beauty.

› The Tourism Strategy for the Broads<sup>17</sup> focuses on activities that help develop, manage and promote high quality, year round sustainable tourism, with consequent benefits for local communities and conservation. The strategy's main objectives are to raise awareness of the Broads as a unique wetland National Park, based on its waterways, heritage, landscape and wildlife; to strengthen the variety, quality and distinctiveness of the tourism offer and generate visits throughout the year; and to manage the flow of visitors around the Broads, encouraging exploration and environmentally friendly tourism.

› During this Broads Plan period, cuts in public sector budgets will continue to impact on support for tourism marketing, management and infrastructure. Stronger engagement and partnership working between local authorities, tourism-related businesses and private

sector agencies will be vital in supporting the tourism industry. Recognised issues include a lack of adequate visitor facilities in some areas; inconsistent quality of accommodation and catering; and labour, skills and volunteer shortages. Opportunities include private sector interest in sponsorship, and a growing public interest in special interest or 'experience' events and itineraries, particularly focused around wildlife and cultural heritage. The primary target markets for the Broads include domestic visitors on short breaks, couples and families on longer holidays, and day visits by local residents and coastal holidaymakers. There is also forecast growth in other markets in the UK and further afield, such as young independent travellers, groups, people with special needs, and overseas visitors, particularly from near European countries like the Netherlands and Germany.

› Consistent and coordinated messages about the area help to strengthen visitor understanding, awareness and enjoyment, both before and during their visit. This prompted the Broads Authority's resolution, in 2015, to brand the area as the 'Broads National Park', to promote more clearly the area's National Parks UK membership credentials and special qualities. As noted earlier in this plan, this decision does not change the Authority's statutory purposes, or the legislation for the management of the Broads, in any way. While the Broads may mean different things to different people, it is hoped that this unifying brand and key messages will help create an overall feeling about the area that captures its essence and value, places it in people's minds, and makes them want to be part of it and care for it.



Launching the 7th annual Broads Outdoors Festival in 2017. Broads Tourism works closely with the Broads Authority to provide a strong voice for local tourism businesses and give visitors all they need for a perfect trip to the Broads

*Left to right:* Guided walk; Norwich Yacht Station; Solar boat 'Ra'; Broads Information Centre; Visitor information; Using a cycle trail app; Environmental outreach



Minister for National Parks, Lord Gardiner, visiting the Broads in 2017

<sup>17</sup>Tourism Strategy and Destination Marketing Management Plan for the Broads (2016-20)

## G Connecting and inspiring people

### Context

- › The Broads executive area straddles parts of six district authority areas: Broadland, South Norfolk, North Norfolk, Great Yarmouth, Norwich and Waveney. The Broads Authority is the local planning authority in the Broads, while the district councils retain all other local authority powers and responsibilities. Norfolk County Council and Suffolk County Council are the county planning authorities for their respective part of the Broads, with responsibilities that include minerals and waste planning.
- › Regeneration, development and diversification sustain and strengthen the social and economic vitality of the area. The Authority's spatial planning policies help preserve and improve the quality of the built environment, while also protecting and enhancing the area's natural resources, wildlife, waterways, landscape character and historic environment. Planning must also be responsive to changes in development growth, climate change, population growth and mobility, agriculture and land use, technology, the economy and wider governance, including the impacts of the UK's departure from the European Union.
- › The ongoing squeeze in public sector finances, and the sluggish recovery of the national economy, is impacting on the Broads as elsewhere. Agriculture, tourism and the leisure marine industry, all significant contributors to the local economy, will have to continue to diversify and change their practices to survive, with implications for the use and management of land and buildings. The Broads is close to urban 'growth locations'<sup>18</sup>, including Norwich, Great Yarmouth and Lowestoft, all gateways to the Broads. The Greater Norwich Joint Core Strategy allocates 33,000 new homes within the Norwich Policy Area between 2008 and 2026. Some key development sites, such as Rackheath, are very close to the Broads boundary.
- › The planned development and regeneration will help to attract and retain business investment, contribute towards local services and infrastructure improvements, and support a higher quality of life. However, growth at this scale is not without environmental impact; the Broads is a valuable asset in terms of providing green infrastructure, enhancing the wider area and helping to manage and divert visitor pressures.
- › Around 6,350 people live within the Broads. Housing supply is fairly static, with average house prices considerably higher than in many other parts of Norfolk and Suffolk and a high degree of second home ownership and holiday accommodation. New permanent housing is at a premium

*Left: Willow harvesting volunteer; Ditchingham Maltings renovation; From Norwich to the Broads to the sea; environmental education*

### Long-term aim

Strong planning frameworks and cross-boundary cooperation between local authorities provide vibrant opportunities for economic, social and environmental sustainability, regeneration and diversification in ways that continue to protect and enhance the distinctive character and assets of the Broads and support thriving local communities. People from all walks of life and all ages and abilities, particularly young people, disadvantaged people and people with disabilities, have opportunities to connect or reconnect with the Broads on their doorstep and 'go the extra mile' for recreation, learning, and physical and mental health and wellbeing. Mainstream and extra-curricular educational opportunities make use of the area's natural and cultural assets and inspire and motivate young people as part of lifelong learning. People feel actively involved in making decisions about the future of the Broads, and local communities, businesses and visitors are able to contribute in practical ways to the management and enjoyment of the area. Volunteering provides beneficial opportunities for enjoyment, wellbeing and enhancing life skills and is recognised as a valuable resource in caring for the Broads.

and many people, particularly those on low wages, often cannot afford to buy on the local housing market. Local planning authorities are developing policies and projects that support housing need in appropriate locations, with each authority setting its housing targets. The Strategic Housing Market Assessment for Central Norfolk (as at 2016) has calculated that 320 new dwellings are needed for the whole of the Broads by 2036, and this is being addressed through the emerging Broads Local Plan.

- › The Vision for English National Parks and the Broads<sup>19</sup> encourages the National Parks family to support people from all walks of life, ages and abilities to experience and enjoy these special landscapes at first hand. Often a lack of physical or cultural access, information or simply motivation means that local people feel disconnected from the countryside on their doorstep. Creating, providing and promoting accessible, informative and inspirational opportunities for recreation, learning, health and wellbeing can motivate people to 'go the extra mile' and reconnect, or perhaps connect for the first time, with all that the Broads has to offer.

<sup>18</sup>Strategic Economic Plan, New Anglia LEP, 2014.

<sup>19</sup>Vision and Circular for English National Parks and the Broads, Defra, 2010.

## Long-term aim

The Broads is recognised and celebrated locally, nationally and internationally as a distinctive member of the UK National Parks family, as an extensive, lock-free inland waterway and as one of Europe's finest and most important lowland wetlands. Local tourism businesses take a proactive and coordinated approach to marketing the area within its wider regional, national and international setting. They work together to maintain high quality and environmentally sustainable standards and contribute to visitor awareness of and enthusiasm for the

Broads waterways, heritage, landscapes and wildlife. Clear, consistent and high quality information is readily available in a range of formats and styles to help visitors and local people from all walks of life and of all ages and abilities to understand, respect, enjoy and benefit from the special qualities of the area. The natural, built and cultural heritage and traditions that reflect the character of the Broads are recognised, understood, documented and promoted through a variety of means that make it accessible to all.



Exploring the Broads on giant touchscreens and interpretation panels

## Aspiration 7 Strengthen and promote key messages and tourism offer in keeping with the area's status, special qualities, history and traditions

**Focus** Improving and promoting integrated multimedia information and interpretation to attract visitors and assist them during their visit

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
7.1	Develop integrated, multimedia communications to boost local community and visitor awareness and appreciation of the special qualities of the Broads National Park	Updated, comprehensive visitor destination website (Visit the Broads) in place, linked to destination websites at local to international level; integrated, multimedia destination marketing campaigns and events carried out featuring Norfolk, Suffolk, East Anglia, UK waterways and UK National Parks; Broads National Park brand guidelines produced and made available [BA, BT, DMOs, BMF, NA LEP]	Partners; additional resources required	Broads Tourism Strategy 2016-20 indicators, BA social media metrics, survey data
		Cultural and natural heritage interpretation activities implemented under (a) Broads LPS programme 1: Interpreting the Landscape [Broads LPS Board and LPS delivery partners] and (b) Hoveton Wetland Restoration Project [NE]	(a) HLF (funding bid); (b) funding secured	(a) Broads LPS target data for HLF; (b) Hoveton restoration project targets

7.2	Maintain and upgrade the range and provision of multimedia and 'point of need' visitor information and interpretation	Broads information presence maintained at visitor centres and hubs, incl. yacht stations, TICs, gateways and key sites; visitor newspaper, trail/location maps, interactive tools, creative projects (e.g. drama, film) produced and made available; wi-fi in place at BA yacht stations and information centres; availability and range of information on easy access in the Broads improved [BT, BA, LAs, DMOs, TBs, RSPB, NWT, SWT, Broads LPS Board and LPS delivery partners]	Partners	Visitor centre usage, print distribution numbers, social media metrics
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**Focus Supporting high quality, environmental standards in local tourism and strengthening tourism staff resources and skills**

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
7.3	Implement industry-based measures to strengthen the quality and distinctiveness of the Broads tourism offer, including careers and skills training	Systems in place to assess and guide quality and environmental sustainability standards and local distinctiveness in local tourism provision, incl. quality assurance certification/award schemes and visitor feedback sites [BA, BT, TBs, NA LEP]	Grant funding via BT Marketing Plan, partner funding, NA LEP	Visitor feedback survey data, # quality/ certification schemes in place
Tailored tourism staff training programmes and events made available through hire boat operators and tourism businesses; initiatives developed and made available to young people wishing to pursue tourism-related careers [DMOs, BT, TBs, BHBF, NA LEP, BA]		Business resources, NA LEP	Visitor feedback survey data, # training courses / # young people entering industry	



Above: 'Know the Broads' workshops are run for local businesses, including Fairhaven Woodland and Water Gardens  
 Right: Visiting How Hill; White Horse village pub, a member of the Broads Quality Charter





› The Broads National Park is a wonderful outdoor resource for environmental education and outreach, as a ‘classroom without walls’. Raising awareness and understanding, particularly among young people, is a key focus in the Government’s 8-Point Plan for England’s National Parks (2016). While a long-term aim is that the Broads will be ‘a source of enjoyment, learning and personal development for every child in Norfolk and Suffolk during their school career’<sup>20</sup>, the Authority and its education partners have been focusing very limited

resources where they are likely to have most impact, particularly for young people who might otherwise not have a chance to experience the Broads. The Broads Education Strategy<sup>21</sup> identifies the need to increase resources and expand education and outreach in the Broads. This will build on established school-based activities and wider outreach, and link into a range of new projects for young people being developed through the Broads Landscape Partnership Scheme.

### Aspiration 8 Support development growth within and adjacent to the Broads, while avoiding adverse impacts on the area’s special qualities

Focus Supporting sustainable spatial development through planning policy and cross-boundary cooperation				
Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
8.1	Update and adopt Broads spatial planning policies and site specific allocations to support local business, housing need, community facilities and transport choices, and to ensure development occurs within environmental limits	(i) Broads Local Plan to 2036 prepared and adopted by 2018, including agreed site allocations and response to Broads Objectively Assessed Housing Need, and supported by planning pre-application service [BA]; (ii) Formal consultation framework, protocol and guidance completed by 2018 and in use by prescribed local ‘duty to cooperate’ bodies [LPAs]	(i) BA (ii) LPAs	NPA planning targets, Duty to Cooperate framework principles
		Appropriate priority locations for improved broadband and mobile phone coverage identified and promoted to influence national network improvement programmes [NCC, SCC, BT]	Partnership schemes (Better Broadband for Norfolk/ Suffolk)	BBFN and BBFS programme targets
8.2	Develop comprehensive approach to enhancing sites that are strategically important for their heritage or green infrastructure value	Comprehensive site masterplans and funding bids developed to support proposals for strategic sites with a significant built, cultural, natural heritage or community green infrastructure value, e.g. How Hill, Whitlingham Country Park, Hoveton Riverside Park [BA, LPAs, HHT, WCT]	Partners, additional resources required	Individual site plan targets to be developed

### Aspiration 9 Strengthen connections between a wide audience, particularly local communities and young people, and the Broads environment

Focus Developing motivational, participatory activities to connect local communities and visitors with the Broads environment				
Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
9.1	Widen the range of active and entry level/ taster initiatives that promote physical and mental health and wellbeing, based in the Broads natural environment	‘Try it out’ activities implemented through: (a) Broads Landscape Partnership Scheme Programmes 1-6, incl. ‘Gateways to the Broads’ and ‘Go the Extra Mile’ [Broads LPS Board and LPS delivery partners]; (b) community and business-led initiatives, e.g. Paddle for a Pound, Fishing for Life [Local community/amenity groups and businesses]	(a) HLF (funding bid); (b) Local groups and businesses	Broads LPS target data for HLF

<sup>20</sup>Vision for the Broads, Broads Plan, Broads Authority, 2011 <sup>21</sup>Broads Education Strategy 2017-22, Broads Authority, 2017

		Community health and wellbeing initiatives using the Broads natural environment as a resource in place and actively promoted, e.g. Be Well in the Wild [SCC], Active in Nature [RSPB/SE], Green Gym [TCV], Green Care in the Parks [NPE] and other local initiatives [local authorities, businesses, academic institutions]	Partners, additional resources required	# events and participants, NHS wellness statistics (to be determined)
9.2	Offer a flexible range of practical volunteering programmes, events and training, and establish a longer-term succession strategy	More flexible and diverse range of volunteering opportunities and associated skills training/ leadership schemes made available; succession plan in place to maintain longer-term volunteering resource [BA, RSPB, NWT, SWT, VN, TCV, local groups]	Partners	NPA (BA) volunteer numbers and £ value
		Volunteering opportunities implemented under Broads Landscape Partnership Scheme Programme 3D: Broads Young Rangers and 3E: People Engagement [Broads LPS Board and LPS delivery partners]	HLF (funding bid)	Broads LPS target data for HLF
9.3	Increase the scope for partnership fundraising and other income generation initiatives to support Broads-themed projects	Income generation sources supported and promoted, incl. corporate sponsorship, National Park Partnership initiatives, Love the Broads visitor giving scheme, retail sales [BA, Broads Trust, BT, NPE, NA LEP, trusts and charitable bodies]	Partners	Love the Broads income/ # business sign ups; new income generation

#### Focus Offering inspiring learning opportunities for young people, including those from disadvantaged backgrounds

Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
9.4	Improve the capacity of the Broads Environmental Education Network (BEEN) to develop and run educational programmes and events for local schoolchildren	Enhanced range of environmental education schemes, activities and resource tools produced and promoted to local schools, incl. updated, extended sets of Broads Curriculum materials, teacher training and teacher conferences [BEEN partners]	BEEN + education partners	# participants in target schemes
		Schools-based educational opportunities implemented under Broads Landscape Partnership Scheme Programmes [Broads LPS Board and LPS delivery partners]	HLF (funding bid)	Broads LPS target data for HLF
		Opportunities developed for external funding, sponsorship, trained volunteer supervisors and other means to boost capacity to run/support outreach educational activities [BA, BEEN]	Partners	Level of new funding/ trained manpower resource in place
9.5	Develop and run motivational outreach activities and award schemes for young people, including those from disadvantaged backgrounds, focusing on life and work skills training and practical experience	(a) Annual outreach programmes, initiatives and motivational incentives in place, incl. John Muir Award programme, Forest Schools, Broads Discovery Days; training programmes for partners established and implemented [BEEN and other educational partners]; (b) Scope for outreach/award schemes (e.g. National Citizen Service) and apprenticeship schemes/ Apprenticeship Levy developed through partnerships, incl. Broads LPS [BA, Broads LPS Board and LPS delivery partners]	Partners, NCS Trust	# participants in target schemes, participant feedback
		Youth engagement activities implemented under Broads Landscape Partnership Scheme Programmes 3B & 3C: Learning and Future Skills [Broads LPS Board and LPS delivery partners]	HLF (funding bid)	Broads LPS target data for HLF



## H Building 'climate-smart' communities

### Context

› The predicted impacts of sea level rise and climate change pose considerable challenges to the future of the Broads special qualities and to its local communities and visitors. Based on probable climate projections, over the coming 50 years the Broads is likely to see hotter, drier summers, slightly wetter and warmer winters, streams and the sea getting warmer, increasing mean water levels, more extremes in the intensity and frequency of rainfall and storms, and possibly heatwaves and drought.

› Depending how our climate changes, impacts are likely to include variations in the distribution of habitats and species, with some net loss of native biodiversity and increasing pressure from invasive non-native species; changes in the visual landscape character, including damage or loss of archaeological and built heritage features; and damage to property and infrastructure. We may also see greater pressures on water resources; changes in agriculture patterns and production; changes to siltation rates and patterns; stimulated plant growth that will require greater management; and changes in tourism patterns and visitor numbers. This will bring new challenges and opportunities for land management and use, and strong planning policy will play a key role in supporting ongoing sustainable development in the Broads and wider area.

› Minimising the scale of climate change (mitigation) and coping with the inevitable changes that are already coming (adaptation) are closely intertwined. The emphasis in recent years has perhaps been on mitigation measures, such as carbon reduction planning, which try to ensure the limits of change do not become unacceptable. This does not mean that adaptation planning can be left alone, and we also need to improve our understanding and develop realistic and acceptable management options for the future. We will need to consider how our management decisions may affect our natural ecosystems and the services they provide for people and wildlife, such as flood regulation, clean air, food, energy, fresh water (including drinking water), carbon capture, employment, and health and wellbeing (see Diagram 1, page 10).

› In 2016, the Broads Climate Partnership prepared a Climate Adaptation Plan for the Broads<sup>17</sup> and submitted it to Defra as part of the UK National Adaptation Programme. The Plan's main focus is on developing longer-term options for managing water resources and flood risk (also see Section 3A).

*Left: Summer storm on the River Ant; This house at Horning 'floats' above the landscape, its design response to flood resilience gaining it planning approval in Flood Zone 3, where new development is usually not permitted*

› In wider terms, the plan proposes the development of an informed and proactive 'climate-smart' approach. This is about supporting local residents, businesses and visitors to recognise the likely changes and impacts ahead, what is being done in response and, importantly, what they can do themselves to become more resilient and adaptive to future change and help build a greener economy. 'Climate-smart' planning also aims to involve people more fully in wide-ranging discussion and decisions about the longer-term future for the communities, landscapes and wildlife of the Broads.

### Long-term aim

'Climate smart' planning and action is helping to retain the beauty and value of the Broads as a special place of high quality landscape, wildlife and heritage that provides people with opportunities for recreation, learning, wellbeing, employment and economic sustainability. Local communities are prepared for and resilient to change. Experience of longer-term planning for change is being shared more widely and frequently to support everyone, particularly those more vulnerable and less able to adapt quickly or easily. Land, buildings, infrastructure, services and working practices are modified to cope with the impacts of sea level rise and changing regimes, including more frequent and more intense weather conditions and changing water levels. Sustainable management of land and water resources is commonplace. Local renewable energy generation is high, using methods that fit into the Broads landscape, and energy efficiency measures and low carbon options are widely chosen. Research is focused on innovative ways to save energy and benefit the local economy.



Broads °Community aims to share information and ideas on adapting to climate change

<sup>22</sup>Broads Climate Adaptation Plan, Broads Authority, 2016.

**Aspiration 10** Build the awareness and adaptive capacity of local communities to the challenges of climate change and sea level rise

Focus Building and sharing concerns, knowledge and practical community level responses to climate change and sea level rise				
Ref	Strategic actions	Key outputs by 2022 / [lead delivery and reporting partners]	Resources	Indicators
10.1	Develop and promote tailored 'climate-smart' mitigation and adaptation measures, guidance and support to local communities	Broads Community initiative developed and promoted; interpretation programme developed to raise awareness and promote practical adaptation measures for communities within the Broads and other protected areas; adaptation options included with public strategies/appraisals [ <b>Broads Climate Partnership</b> ]	Broads Climate Partnership; resources required	Pilot project by 2018; potential roll out in phased programme 2018-20
		Community Resilience Strategies for Norfolk and Suffolk in place and promoted, evolving into becoming more 'climate smart' [ <b>NRF, SRF, BA</b> ]	LA resources with external funding	# Community Resilience Strategies in place
		Increased provision and promotion of facilities, schemes and incentives that encourage the use of low energy/environmentally friendly schemes through the Green Tourism Business Scheme, The GreenBlue, and green product marketing [ <b>LAs, BA, BT, WCOs, LEP</b> ]	Partners and business initiatives	Increase in green tourism certification take up
10.2	Commission and coordinate research to inform management approaches to decrease carbon emissions and increase carbon sequestration in the Broads	Research completed and information promoted to raise awareness of the value of well managed peatland ecosystems as carbon sinks, and the impacts of poor water and land management on the ability of peatlands to capture carbon [ <b>BA, Broads Climate Partnership, BCP, BBP</b> ]	Academic R&D grants	# research reports reported through Broads Climate Partnership
		Research and development carried out on renewable energy generation techniques appropriate to the Broads; enhanced, up-to-date information on renewable energy generation options produced and published [ <b>LAs, UEA</b> ]	Partner and academic R&D grants	kW net increase in renewable energy (BA planning permissions)



Stills from Broads Future, a short video raising issues around flood risk management in the Broads

[www.broads-authority.gov.uk/looking-after/projects/broads-community](http://www.broads-authority.gov.uk/looking-after/projects/broads-community)

# Appendices

## A Broads Plan partners

Many organisations, groups and individuals contribute to the planning and implementation of actions in the Broads Plan, including those listed below. This is not an exhaustive list, and numerous others help to care for the Broads.

**Anglian Water** is a landowner and provides a water supply to much of the Broadland catchment and sewerage services throughout the catchment.

The **Broadland Catchment Partnership** aims to improve the water environment and provide wider benefits for people and nature through a coordinated catchment-based approach. The BCP is co-hosted by the Broads Authority and Norfolk Rivers Trust. Partners include Anglian Water, Environment Agency, Essex & Suffolk Water, NFU, Natural England, Norfolk County Council, Norfolk and Suffolk Farming and Wildlife Advisory Groups, Norfolk Wildlife Trust, River Waveney Trust, RSPB, Rivers Trust, Suffolk County Council, Suffolk Wildlife Trust, University of East Anglia and Water Management Alliance.

The **Broads Authority** has a statutory duty to conserve the natural and cultural heritage of the Broads, promote its understanding and enjoyment, and protect the interests of navigation. It is the local planning authority and a harbour and navigation authority. (Also see section 1.2)

The **Broads Biodiversity Partnership** seeks to improve biodiversity through a coordinated approach. The group is hosted by the Broads Authority. Partners include Norfolk Wildlife Trust, Suffolk Wildlife Trust, RSPB, Butterfly Conservation, Dragonfly Society, Anglian Water, Environment Agency, Essex & Suffolk Water, Natural England, Norfolk County Council, River Waveney Trust, Suffolk County Council, University of East Anglia and the Water Management Alliance.

The **Broads Climate Partnership** is a high-level forum to coordinate debate about climate change and sea level rise issues and options for the Broads. Its members include the Broads Authority, Environment Agency, Natural England, National Farmers Union, local authorities and the University of East Anglia.

The **Broads Environmental Education Network (BEEN)** involves around 40 organisations such as education bodies, charities, businesses and visitor attractions, all with a common goal to improve people's understanding of the Broads. It supports the development of 'Broads Curriculum' online education resources for schools.

The **Broads Forum** acts as a reference group for advice and comment on strategic aims and objectives for the Broads. It promotes closer liaison and understanding between various bodies and organisations with an interest in the Broads and its wider catchment. (See membership over page).

The **Broads Land Management Service** is a 'one stop shop' where conservation bodies working in the Broads can offer advice to landowners through agricultural advisors and services. Partners include the Broads Authority, Natural England, Norfolk FWAG, RSPB and the local Wildlife Trusts.

The **Broads Local Access Forum** is a semi-independent body established under the Countryside and Rights of Way Act. It advises the Broads Authority on improving and promoting public access to land within the Broads and adjacent parts of Norfolk and Suffolk.

**Broads Tourism** acts as a forum for local tourism businesses. It aims to promote the Broads as a high quality, 'green' visitor destination through quality standards, staff training and clear, coordinated messages that define the area's status and special qualities.

**District Councils:** The Broads Executive Area straddles six District Council areas: **Broadland, Great Yarmouth, North Norfolk, Norwich, South Norfolk** and **Waveney**. The councils provide a range of community services including housing, planning, and waste collection and recycling. The coastal councils are also coastal erosion risk management authorities.

Within the Broads area, the **Environment Agency** is responsible for water quality and resources, fisheries, conservation and ecology, and for the regulation of major industry, including waste, and the treatment of contaminated land. It is also responsible for managing flood risk from main rivers, reservoirs, estuaries and the sea.

**Essex & Suffolk Water** is a landowner, and supplies water to parts of the south and east of the Broads catchment.

The **Greater Norwich Development Partnership** involves Broadland, Norwich and South Norfolk councils working together on a Joint Core Strategy (JCS), setting out a long-term vision and development objectives for the area. The Broads Authority executive area extends into the JCS area and must be regarded in that strategy.

**Historic England** is a public body offering expert advice on heritage issues and promoting the wider conservation of the historic environment. English Heritage, as a new independent charity, oversees the National Heritage Collection of historic properties.

**Internal Drainage Boards** are independent public bodies responsible for managing water levels in low-lying areas. As the district land drainage authorities, IDBs supervise land drainage and flood defence works on ordinary watercourses.

**Lead Local Flood Authorities** manage the risk of flooding from surface water, groundwater and ordinary watercourses and lead on community recovery. Norfolk County Council and Suffolk County Council are LLFAs.

The **National Farmers Union** champions British farming and provides professional representation and services to its farmer and grower members. 'Why Farming Matters to the Broads' sets out an NFU vision to support and encourage a sustainable future for the Broads.

The **National Trust** is a charity working to preserve and protect historic places and spaces. It is one of the UK's largest landowners and owner of a large number of heritage properties, including historic houses and gardens, industrial monuments, and social history sites.

**Natural England** aims to enhance England's wildlife and landscapes and maximise the benefits they bring to the public. It focuses on agri-environment land management, habitat and landscape conservation, coastal public access and National Trails, and conservation designation.

**New Anglia Local Enterprise Partnership** works with businesses and public sector partners to help grow jobs in Norfolk and Suffolk. The two counties are global leaders in life sciences, food and agriculture and the 'all energy' sector. The LEP is also the Government's Green Economy Pathfinder leader.

The **Norfolk Biodiversity Partnership** has a shared vision for the conservation, enhancement and restoration of the county's biological diversity.

The **Norfolk Coast Partnership** and the **Suffolk Coast & Heaths AONB Partnership** are designated as outstanding landscapes whose distinctive character and natural beauty are so precious that it is in the nation's interest to safeguard them. Part of the Norfolk Coast AONB overlaps with the Broads Authority executive area.

**Norfolk County Council** and **Suffolk County Council** are responsible for a wide range of public services in their respective counties including social care, public safety, roads and transport, education, environment and waste management. As highway authorities, their responsibilities include public rights of way for the Broads.

The **Norfolk Geodiversity Partnership** records, conserves and promotes appreciation of the county's geological and geomorphological diversity, through the Norfolk Geodiversity Action Plan.

**Norfolk Wildlife Trust** and **Suffolk Wildlife Trust** are charities working to protect and enhance county wildlife and wild places including reserves, and promote environmental education. Norfolk Wildlife Trust is the oldest Wildlife Trust in the country.

**Parish councils:** There are 91 parish councils partly within the Broads Authority executive area. They are the level of government closest to the community, representing local interests, delivering services to meet local needs and working to improve community life and wellbeing.

The **RSPB** is Europe's largest nature conservation charity. It works across the UK to protect special places for wildlife, save species from extinction and create opportunities for people to experience and help protect wildlife and nature. It does this through its network of nature reserves, land management on third party sites, promoting environmental policies and principles, and environmental campaigns and education.

The **Whitlingham Charitable Trust** was set up in 1988 to manage Whitlingham Country Park as an open place where the public can enjoy quiet pursuits in a rural environment. The Broads Authority has responsibility for the day-to-day management of the Park and the Flint Barn visitor centre. Norfolk County Council manages the water space and the Outdoor Education Centre.

**Wild Anglia Local Nature Partnership** aims to enhance the natural environment of Norfolk and Suffolk through effective partnership working with business and communities.

#### The following interests are represented on the Broads Forum

[www.broads-authority.gov.uk/broads-authority/committees/broads-forum](http://www.broads-authority.gov.uk/broads-authority/committees/broads-forum)

Association of Drainage Authorities  
Barton Turf Adventure Centre  
British Association for Shooting and Conservation  
British Rowing  
British Water Ski Federation  
Broads Angling Strategy Group  
Broads Hire Boat Federation  
Broads Local Access Forum  
Broads Reed and Sedge Cutters Association  
Broads Society  
Broads Tourism  
Canoe England  
Country Landowners Association  
East Anglian Waterways Association  
Eastern Region Rowing Council  
Eastern Rivers Ski Club  
Easton College  
Friends of the Earth  
Horstead Centre  
How Hill Trust  
Inland Waterways Association  
Museum of the Broads  
Nancy Oldfield Trust  
National Farmers Union  
National Trust  
Norfolk and Suffolk Boating Association  
Norfolk Archaeological Trust  
Norfolk Association of Local Councils  
Norfolk Heritage Fleet Trust  
Norfolk Schools Sailing Association  
Norfolk Wherry Trust  
Norfolk Wildlife Trust  
Norfolk Windmills Trust  
Oulton Broad Sports Centre  
Oulton Broad Users Enterprise  
Ramblers Association  
Royal Yachting Association  
RSPB  
Sport England  
Suffolk Association of Local Councils  
Suffolk Wildlife Trust  
Sustrans  
The Conservation Volunteers  
Visit East Anglia  
Visit Norfolk  
Visit Norwich  
Where to go in North Norfolk  
Wherry Yacht Charter Charitable Trust  
Yare Users Association

## B Abbreviations and links

AINA	Association of Inland Navigation Authorities	LA/LPA	Local Authority / Local Planning Authority
ALARP	'As low as reasonably practicable', used in risk management safety systems	MMO	Marine Management Organisation
AONB	Area of Outstanding Natural Beauty	NA LEP	New Anglia Local Enterprise Partnership
AW	Anglian Water	NBIS	Norfolk Biodiversity Information Service
BA	Broads Authority	NC/SC	Norfolk Constabulary / Suffolk Constabulary
BASG	Broads Angling Strategy Group	NCC	Norfolk County Council
BAT	Broads Angling Trust	NCS	National Citizen Service
BBP	Broads Biodiversity Partnership	NE	Natural England
BC	British Canoeing	NCP	Norfolk Coast Partnership
BCP	Broadland Catchment Partnership	NGO	Non-Governmental Organisation
BEEN	Broads Environmental Education Network	NGP	Norfolk Geodiversity Partnership
BEIS	Dept. for Business, Energy & Industrial Strategy	NNNSI	Norfolk Non-Native Species Initiative
BESL	Broadland Environmental Services Ltd	Norwich	
BHBF	Broads Hire Boat Federation	CC	Norwich City Council
BIS	Dept. for Business, Innovation & Skills	NP/NPA	National Park / National Park Authority
BMF	British Marine Federation	NPE	National Parks England
BRASCA	Broads Reed and Sedge Cutters Association	NR	Network Rail
Broads		NRF/SRF	Norfolk Resilience Forum / Suffolk Resilience Forum
IAS	Broads Integrated Access Strategy	NRT	Norfolk Rivers Trust
Broads		NSBA	Norfolk and Suffolk Boating Association
LPS	Broads Landscape Partnership Scheme	NSPG	Norfolk Strategic Planners Group
BT	Broads Tourism	NWSF	Norfolk Water Safety Forum
CAMS	Catchment Abstraction Management Strategy	NWT	Norfolk Wildlife Trust
CFE	Campaign for the Farmed Environment	RDPE	Rural Development Programme for England
CFMP	Catchment Flood Management Plan	RWSP	River Wensum Strategy Partnership
CPE	Coastal Partnership East	SAC	Special Area of Conservation
CPRE	Campaign to Protect Rural England	SCC	Suffolk County Council
CS	Countryside Stewardship	SE	Sport England
CSF	Catchment Sensitive Farming	SFRA	Strategic Flood Risk Assessment
DMO	Destination Management Organisation	SMP	Shoreline Management Plan
EA	Environment Agency	SNC	South Norfolk Council
ESW	Essex & Suffolk Water	SSSI	Site of Special Scientific Interest
FE	Further Education	SWMP	Surface Water Management Plan
FWAG	Farming & Wildlife Advisory Group	SWT	Suffolk Wildlife Trust
GYBC	Great Yarmouth Borough Council	TBs	Tourism businesses
HBO	Hire Boat Operators	TCV	The Conservation Volunteers
HE	Historic England	UEA	University of East Anglia
HHT	How Hill Trust	VN	Voluntary Norfolk
HLF	Heritage Lottery Fund	WCO	Wildlife, heritage and conservation bodies
IDB	Internal Drainage Board	WCT	Whitlingham Charitable Trust
		WFD	Water Framework Directive
		WSF	Water Sensitive Farming

## Broads Plan links

**Anglian Water / Essex & Suffolk Water management plans**  
[www.anglianwater.co.uk](http://www.anglianwater.co.uk)  
[www.eswater.co.uk/your-home/Planning-for-the-future.aspx](http://www.eswater.co.uk/your-home/Planning-for-the-future.aspx)

**Biodiversity 2020: A strategy for England's wildlife and ecosystem services**  
[www.gov.uk/government/publications/biodiversity-2020-a-strategy-for-england-s-wildlife-and-ecosystem-services](http://www.gov.uk/government/publications/biodiversity-2020-a-strategy-for-england-s-wildlife-and-ecosystem-services)

**Broadland Catchment Abstraction Management Strategy**  
<https://www.gov.uk/government/publications/cams-broadland-abstraction-licensing-strategy>

**Broadland Flood Alleviation Project**  
[www.bfap.org/](http://www.bfap.org/)

**Broadland Rivers Catchment Flood Management Plan**  
(and links to water management plans)  
[www.gov.uk/government/collections/catchment-flood-management-plans#anglian-river-basin-district](http://www.gov.uk/government/collections/catchment-flood-management-plans#anglian-river-basin-district)

**Broadland Rivers Catchment Plan (2014)**  
[www.broads-authority.gov.uk/\\_\\_data/assets/pdf\\_file/0004/457177/Catchment-Plan-website-final.pdf](http://www.broads-authority.gov.uk/__data/assets/pdf_file/0004/457177/Catchment-Plan-website-final.pdf)

**Broads Act 1988, Broads Authority Act 2009**  
[www.broads-authority.gov.uk/broads-authority/how-we-work/legislation](http://www.broads-authority.gov.uk/broads-authority/how-we-work/legislation)

**Broads Angling Strategy (2013)**  
<http://basgonline.org/document-library/>

**Broads Climate Adaptation Plan**  
[www.broads-authority.gov.uk/\\_\\_data/assets/pdf\\_file/0004/709159/Climate-Adaptation-Plan-Summary.pdf](http://www.broads-authority.gov.uk/__data/assets/pdf_file/0004/709159/Climate-Adaptation-Plan-Summary.pdf)

**Broads Education Strategy**  
[www.broads-authority.gov.uk/broads-authority/how-we-work/strategy](http://www.broads-authority.gov.uk/broads-authority/how-we-work/strategy)

**Broads Integrated Access Strategy**  
[www.broads-authority.gov.uk/broads-authority/how-we-work/strategy](http://www.broads-authority.gov.uk/broads-authority/how-we-work/strategy)

**Broads Lake Restoration Strategy, Broads Lake Review**  
[www.broads-authority.gov.uk/looking-after/managing-land-and-water/water-quality/broads-restoration](http://www.broads-authority.gov.uk/looking-after/managing-land-and-water/water-quality/broads-restoration)

**Broads Landscape Character Assessment (2006, update 2017)**  
[www.broads-authority.gov.uk/news-and-publications/publications-and-reports/planning-publications-and-reports/landscape-character-assessments](http://www.broads-authority.gov.uk/news-and-publications/publications-and-reports/planning-publications-and-reports/landscape-character-assessments)

**Broads Local List of Heritage Assets**  
[www.broads-authority.gov.uk/planning/Other-planning-issues/protected-buildings/broads-local-list-of-heritage-assets](http://www.broads-authority.gov.uk/planning/Other-planning-issues/protected-buildings/broads-local-list-of-heritage-assets)

**Broads Reed and Sedge Cutters Association Action Plan**  
[www.broads-authority.gov.uk/\\_\\_data/assets/pdf\\_file/0019/416413/Action\\_Plan\\_for\\_the\\_Reed\\_and\\_Sedge\\_Cutting\\_IndustryMay2012.pdf](http://www.broads-authority.gov.uk/__data/assets/pdf_file/0019/416413/Action_Plan_for_the_Reed_and_Sedge_Cutting_IndustryMay2012.pdf)

**Broads Volunteer Strategy**  
[www.broads-authority.gov.uk/broads-authority/how-we-work/strategy](http://www.broads-authority.gov.uk/broads-authority/how-we-work/strategy)

**Diffuse Water Pollution Plans**  
[publications.naturalengland.org.uk/publication/5848526737113088](http://publications.naturalengland.org.uk/publication/5848526737113088)

**English National Parks and the Broads: UK Government Vision and Circular (2010)**  
[www.gov.uk/government/publications/english-national-parks-and-the-broads-uk-government-vision-and-circular-2010](http://www.gov.uk/government/publications/english-national-parks-and-the-broads-uk-government-vision-and-circular-2010)

**Flood Management High Level Review for The Norfolk Broads, Eccles to Winterton and Great Yarmouth Tidal Walls, CH2M, 2016**  
[www.broads-authority.gov.uk/looking-after/projects/broads-community](http://www.broads-authority.gov.uk/looking-after/projects/broads-community)

**Greater Norwich Joint Core Strategy**  
[www.greaternorwichgrowth.org.uk/planning/joint-core-strategy/](http://www.greaternorwichgrowth.org.uk/planning/joint-core-strategy/)

**Habitats and Birds Directives**  
[jncc.defra.gov.uk/page-1375](http://jncc.defra.gov.uk/page-1375)

**Habitats Regulation Assessment, Revised draft Broads Plan 2017**  
[www.broads-authority.gov.uk/\\_\\_data/assets/pdf\\_file/0015/802203/Broads-Plan-HRA-final-for-consultation-at-revised-draft-plan-stage.pdf](http://www.broads-authority.gov.uk/__data/assets/pdf_file/0015/802203/Broads-Plan-HRA-final-for-consultation-at-revised-draft-plan-stage.pdf)

**Localism Act 2011**  
[www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/5959/1896534.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/5959/1896534.pdf)

**Making Space for Nature (2010)**  
[webarhive.nationalarchives.gov.uk/20130402151656/](http://webarhive.nationalarchives.gov.uk/20130402151656/)  
<http://archive.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf>

**National Character Area profile: 80. The Broads (2015)**  
[publications.naturalengland.org.uk/publication/11549064](http://publications.naturalengland.org.uk/publication/11549064)

**Network Rail CP6 Delivery Plan**  
[www.networkrail.co.uk/running-the-railway/long-term-planning/periodic-review-2018-pr18/](http://www.networkrail.co.uk/running-the-railway/long-term-planning/periodic-review-2018-pr18/)

**Norfolk Community Resilience Strategy**  
[www.norfolkprepared.gov.uk/wp-content/uploads/2016/02/NRF-CRes-Strategy-2015-FINAL-screen-online-version.pdf](http://www.norfolkprepared.gov.uk/wp-content/uploads/2016/02/NRF-CRes-Strategy-2015-FINAL-screen-online-version.pdf)

**Norfolk County Cycling and Walking Action Plan**  
[norfolk.citizenspace.com/consultation/norfolk-cycling-and-walking-action-plan/supporting\\_documents/Norfolk%20Cycling%20and%20Walking%20Action%20Plan\\_ALL\\_optimised\\_NORWICH%20MAP%20HIGHER%20%20FINAL.pdf](http://norfolk.citizenspace.com/consultation/norfolk-cycling-and-walking-action-plan/supporting_documents/Norfolk%20Cycling%20and%20Walking%20Action%20Plan_ALL_optimised_NORWICH%20MAP%20HIGHER%20%20FINAL.pdf)

**Rights of Way Improvement Plans for Suffolk and Norfolk (including the Broads)**  
[www.norfolk.gov.uk/out-and-about-in-norfolk/public-rights-of-way/about-public-rights-of-way](http://www.norfolk.gov.uk/out-and-about-in-norfolk/public-rights-of-way/about-public-rights-of-way)  
[www.suffolkpublicrightsofway.org.uk/home/rights-of-way-improvement-plan/](http://www.suffolkpublicrightsofway.org.uk/home/rights-of-way-improvement-plan/)

**River Wensum Strategy**  
[www.norwich.gov.uk/info/20225/planning\\_policies\\_supporting\\_documents/1511/the\\_river\\_wensum\\_strategy](http://www.norwich.gov.uk/info/20225/planning_policies_supporting_documents/1511/the_river_wensum_strategy)

**Shoreline Management Plans**  
[www.gov.uk/government/publications/shoreline-management-plans-smps/shoreline-management-plans-smps](http://www.gov.uk/government/publications/shoreline-management-plans-smps/shoreline-management-plans-smps)

**Strategic Economic Plan, New Anglia LEP, 2014**  
[newanglia.co.uk/wp-content/uploads/2014/03/New-Anglia-Strategic-Economic-Plan-V2.pdf](http://newanglia.co.uk/wp-content/uploads/2014/03/New-Anglia-Strategic-Economic-Plan-V2.pdf)

**Strategic Housing Market Assessment for Central Norfolk (2016)**  
[www.north-norfolk.gov.uk/media/2776/central\\_norfolk\\_strategic\\_housing\\_market\\_assessment\\_part\\_2.pdf](http://www.north-norfolk.gov.uk/media/2776/central_norfolk_strategic_housing_market_assessment_part_2.pdf)

**Suffolk Community Resilience Plans**  
[www.suffolkresilience.com](http://www.suffolkresilience.com)

**Suffolk flood risk management strategies**  
[www.suffolk.gov.uk/roads-and-transport/flooding-and-drainage/flood-management-in-suffolk/](http://www.suffolk.gov.uk/roads-and-transport/flooding-and-drainage/flood-management-in-suffolk/)

**Suffolk Walking Strategy**  
[www.healthysuffolk.org.uk/assets/Useful-Documents/Final-Active-for-Life-WS.pdf](http://www.healthysuffolk.org.uk/assets/Useful-Documents/Final-Active-for-Life-WS.pdf)

**Surface Water Management Plans (Norfolk)**  
[www.norfolk.gov.uk/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/flood-and-water-management-policies/surface-water-management-plans](http://www.norfolk.gov.uk/what-we-do-and-how-we-work/policy-performance-and-partnerships/policies-and-strategies/flood-and-water-management-policies/surface-water-management-plans)

**Sustainability Appraisal, Revised Draft Broads Plan 2017**  
[www.broads-authority.gov.uk/\\_\\_data/assets/pdf\\_file/0008/804986/SA-of-revised-draft-Broads-Plan-2017-Sept-consultation-draft-2.pdf](http://www.broads-authority.gov.uk/__data/assets/pdf_file/0008/804986/SA-of-revised-draft-Broads-Plan-2017-Sept-consultation-draft-2.pdf)

**Sustainable Tourism in the Broads: Strategy 2016-20**  
[www.broads-authority.gov.uk/broads-authority/how-we-work/strategy](http://www.broads-authority.gov.uk/broads-authority/how-we-work/strategy)

**UK Biodiversity Action Plan**  
[jncc.defra.gov.uk/page-5155](http://jncc.defra.gov.uk/page-5155)

**UK Government 25-year Plan for the Environment**  
[www.gov.uk/government/publications/defra-single-departmental-plan-2015-to-2020/single-departmental-plan-2015-to-2020#a-cleaner-healthier-environment-benefiting-people-and-the-economy](http://www.gov.uk/government/publications/defra-single-departmental-plan-2015-to-2020/single-departmental-plan-2015-to-2020#a-cleaner-healthier-environment-benefiting-people-and-the-economy)

**UK National Parks Partnerships LLP**  
[www.nationalparks.gov.uk/support-us/partnerships](http://www.nationalparks.gov.uk/support-us/partnerships)

**Water Framework Directive**  
[jncc.defra.gov.uk/page-1375](http://jncc.defra.gov.uk/page-1375)

**Water, Mills and Marshes: Broads Landscape Partnership**  
[www.broads-authority.gov.uk/looking-after/projects/water,-mills-and-marshes](http://www.broads-authority.gov.uk/looking-after/projects/water,-mills-and-marshes)

## C State of the Park monitoring

State of the Park data provides a snapshot of change in a protected area over time. The 16 indicators below will help inform the planning, implementation and review of the Broads Plan and related plans, programmes and

policies. We also have the advantage of the more detailed Broads National Character Area profile<sup>23</sup>, which covers almost all of the Broads Authority executive area as well as a wider area of influence. Natural England's aim is to refresh the NCA periodically as new information becomes available to them.

Ref	Indicators (for Broads executive area unless otherwise stated)	Current status	*Date	*Trend	Data source
1	% of 932 biological or chemical elements measured in Broadland rivers and lakes that support good health	72%	2016	Data from 2011/12 No comparative data	Environment Agency
2	(a) % of SSSI Land in 'favourable' condition (b) % of SSSI Land in 'unfavourable but recovering' condition	(a) 63% (b) 28%	2016	88% in 'favourable or recovering' condition	Natural England (MEOPL)**
3	Extent of (Section 41) priority habitat: (a) % in BA Executive Area; (b) % in NCA	(a) 59.2% (b) 35.6%	2016	No comparative data	Natural England
4	Priority species: (a) Swallowtail butterfly: Observed number at 9 transect sites; (b) Booming bittern: Observed min/ max number	(a) 92 (b) 17/22	2016	(a) 76 (b) 20/25	UK Butterfly Monitoring Scheme (Norfolk)
5	Invasive species: Number of mink trapped (Norfolk Mink Project): (a) Bure, (b) Wensum, (c) Waveney, (d) Yare	(a) 8 (b) 11 (c) 0 (d) 13	2016	(a) 30 (b) 5 (c) 0 (d) 21	Norfolk Mink Project
6	Navigation: Depth of rivers and water bodies (% non-compliance with agreed waterways specifications)	62.3%	Mar 2017	April 2014 30.20%	Broads Authority
7	Light pollution and dark skies: Extent of area in (a) two darkest categories and (b) two brightest categories (nanowatts/cm <sup>2</sup> /sr)	(a) 64.6% (b) 0.2%	2016	No comparative data	Campaign to Protect Rural England
8	(a) Number of Listed Buildings 'at risk' conserved [and total number of LBs 'at risk']; (b) Number of Scheduled Monuments 'at high or medium risk' conserved [and total number of SMS 'at high or medium risk']	(a) 3 [26] (b) 1 [1]	3-year average to 2016	(2011/12 only) (a) 7 [37] (b) 0 [4]	Historic England, Broads Authority
9	Tourism sector (Broads Area of Influence): (a) Visitor numbers; (b) Visitor direct spend (c) Economic impact; (d) Jobs dependent	(a) 7.4m (b) £431m (c) £584m (d) 7245	2015	(a) 7.3m (b) 289m (c) 469m (d) 4881	Scarborough Tourism Economic Activity Monitor
10	New media: (a) BA corporate website: Users [% new visitors]; (b) 'Enjoy the Broads' visitor website: Users [% new visitors]	(a) 153,739 [61.4%] (b) 180,584 [80.1%]	Feb 2017	No comparative data	Broads Authority
11	% schools within 5m buffer using the Broads for 'Learning Outside the Classroom' experiences at least once a year	New indicator	n/a	No comparative data	Broads Authority

<sup>23</sup>Natural Character Area profile: 80. The Broads, Natural England, 2015

<b>12</b>	Registered boats on the Broads: (a) Hire motor craft (b) Hire sailing/rowing craft and houseboats; (c ) Private motor craft; (d) Private sailing/rowing craft and houseboats	Total: 11,946 (a) 1145 (b) 310 (c) 7826 (d) 2665	Nov 2016	Total: 12,526 (a) 1274 (b) 311 (c) 7941 (d) 3,000	Broads Authority
<b>13</b>	Physical access network: (a) Total length of footpaths and other rights of way; % that were easy to use by the public; (b) Length of frontage provided for public short-term/ overnight mooring owned/ operated by BA	(a) 344km; 75%; (b) 7279.3m	2015/16	(a) 336km; 87%; (b) 7825m	Broads Authority, Norfolk County Council, Suffolk County Council
<b>14</b>	Value of volunteer days organised or supported by the BA	£185,250	2015/16	No comparative data	Broads Authority
<b>15</b>	BA planning permissions: (a) Number of new dwellings, incl. new affordable housing; (b) Net change in business floor space (m <sup>2</sup> )	(a) +1 (b) -20m <sup>2</sup>	2015/16	2011-16 total net change: (a) +206 (b) +1620.42m <sup>2</sup>	Broads Authority
<b>16</b>	Renewable energy: Additional kW of generating power (BA planning permissions)	+130.65	2015-16	2011-16 total net change: +1206.65kW	Broads Authority

\*Unless otherwise indicated, **Date** refers to a single year, and **Trend** shows available data in 2011/12, when the last Broads Plan was implemented.

\*\*Monitoring Environmental Outcomes in Protected Landscapes

#### Maps

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[www.broads-authority.gov.uk/broads-authority/ordnance-survey-terms](http://www.broads-authority.gov.uk/broads-authority/ordnance-survey-terms)

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