Broadland Catchment Partnership

Broadland Rivers Catchment Plan

A strategic plan connecting local communities, organisations and businesses with the management of land and water.

Contents

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Cover image by Mike Page.

Forward

The Broadland Rivers Catchment is the area that feeds water into the Broads. It has a strong farming heritage, internationally important wildlife, excellent angling, inland navigation, stunning landscapes and coast, historic towns and the city of Norwich. It is a thriving tourist destination. The Broads is low-lying and located at the bottom of the catchment, so is affected by what happens upstream as well as by tidal surges from the North Sea.

Tackling issues around water quality, water resources, flooding and wildlife habitat is important to many individuals and organisations in Norfolk and Suffolk, as is supporting recreation, tourism, agriculture and dependent industries. Improvements within the catchment, particularly over the past 30 years, are due to the dedicated effort of many individuals, groups and organisations. Despite this excellent work, there is much more to be done.

The Catchment Based approach supports and facilitates partners to work in a collaborative way, with an all-inclusive approach to project planning which result in multiple benefits, help us adapt to climate change and enhance the catchment for future generations. Defra is keen to involve local communities in decision-making by sharing evidence, listening to ideas, working out priorities, and carrying out joined-up actions that address agreed issues.

The Broads Authority and Norfolk Rivers Trust have co-hosted the Broadland Catchment Partnership since 2012 to encourage strategic thinking and help co-ordinate joined-up and targeted water and land management. Since then, the partnership has developed projects addressing agricultural runoff, engaged farmers, landowners and others in the local community around water quality issues, and developed a strong partnership which works together to share learning and develop ideas.

I am delighted with the work of the partnership so far, and I welcome the fact that partners are making the most of existing funding, seeking more innovative sources, and highlighting incentives to encourage best practice across all sectors.

We all have an impact on our catchment and by working together we can take the necessary steps to improve the environment and provide benefits to society and the local economy.

Dr John Packman

Chief Executive, Broads Authority

About the Broadland Catchment Partnership

Co-hosted by the Broads Authority and Norfolk Rivers Trust, the Broadland Catchment Partnership was formed in 2012. It comprises a range of organisations, groups, businesses and individuals dedicated to working together. Our aim is to improve our water environment and provide wider benefits for people and nature at a catchment scale - known as a Catchment Based Approach (CaBA). We have agreed a shared vision for the Broadland Rivers Catchment and produced this plan to work towards it.

Plans alone don't change things, but plans and people do! The Partnership has reviewed the best available evidence relating to the catchment, its key problems and their potential solutions, to inform our actions.

We have liaised with a wide range of interest groups and local experts to agree a direction. Many of these interest groups will be involved, and supported, in carrying out actions. The plan sets out where we want to get to and by when. As a live document, it can be updated as new information becomes available.

The action plan for the Catchment Partnership is held as a separate document alongside this plan.

The Broadland Rivers Catchment has sub-catchment partnerships within its boundaries who work at a more local level. This vital work feeds into the work of the Broadland Catchment Partnership and supports the work of the partnership as a whole.

Shared vision for the Broadland Rivers Catchment

The precious nature and value of water is widely recognised through ecosystem services it provides to society. The public goods that the catchment provides are understood and those who manage the land to provide these public goods are adequately rewarded.

- The catchment is more resilient to the impacts of the climate crisis, including flooding, drought, salinity incursions and extremes of temperature and precipitation. Drought and flood risk being mitigated through delivery of sustainable catchment-based approaches.
- The agricultural and water industries are sustainable and the organisations involved with land and water management work together effectively.
- All waterbodies achieve 'Good' status under the Water Framework Directive. Widespread understanding and support of the targets has motivated many people to change their practices to make a positive contribution.
- Natural hydrological functioning of waterbodies being restored through morphological enhancement and the catchment supports a wide range of habitats and native species.
- Priority nature conservation areas achieving heightened ecological status in accordance with national legislation.
- Communities embrace and celebrate waterbodies in their local environment whilst their enthusiasm and knowledge is sought as part of decision-making processes. Recreational use of water is sustainable in a respectful way.

- The common belief is that the water environment is in far better shape than in 2012 and becoming adapted to future climate change.

“Our key audience - the people who can really make a difference - are communities, farmers and land managers who live and work in the catchment along with other businesses.” Barry Bendall, The Rivers Trust

Goals

To meet the shared vision for the Broadland Rivers Catchment, our goals are:

1. Land use: Work with farmers, landowners and advisors to encourage sustainable farming practices that help to reduce agrochemical pollution, minimise soil erosion, improve soil health, and link habitats and public access.
2. Waste water management: Gather evidence through citizen science and other monitoring to encourage projects which reduce nutrients in watercourses from public and private waste water.
3. Water resource management: Promote nature-based solutions to water resource management challenges, educate water users on the value of water in the region, and provide a forum for cross sector discussion on water resource management.
4. Flood risk management and sustainable drainage: Coordinate with flood risk groups to promote low carbon nature-based solutions and sustainable drainage systems to slow surface run-off and increase groundwater recharge.
5. River channel and floodplain management: Provide a strategic catchment-scale perspective on river and floodplain management projects to increase connectivity, reduce fish barriers and control invasive species
6. Recreation and Understanding: Educate and engage local rural and urban communities on the value of water to influence behavioural change and understand the communities’ priorities and needs regarding water. Gather data and evidence on catchment health through citizen science monitoring and academic research programmes.
1. Investment: Identify investment from public and private finance sources and collaboratively design projects at a catchment-scale to increase funding opportunities for projects. Provide an accessible and transparent forum for cross-sector collaboration on integrated catchment management that is capable of delivering meaningful and beneficial change across the region.

Key messages

- Clean and plentiful water supplies are vital for drinking water provision, food production, supporting industry and sustaining the natural environment.
- We can all reduce the amount of water we use, saving ourselves money, and benefiting rivers and internationally important wetlands. We also have the option to increase the amount of rainfall we capture or encourage it to go into the ground - to replenish our vital groundwater aquifers.
- Rivers and wetlands provide enjoyment for many people whether angling, canoeing, watching wildlife or enjoying picturesque views. Rivers receive our wastewater and

many have been modified for flood defence, milling and navigation purposes. There are opportunities areas across the catchment to restore river reaches and reconnect the floodplain - using low-cost techniques - where no flood risk to property occurs.

- Adopting sustainable farming practices will allow us to continue to produce food, whilst maintaining healthy soil and providing other ecosystem services to society including flood protection, freshwater provision, wildlife habitat and recreation.

Progress so far

As the Broadland Catchment Partnership, we hold regular meetings with a wide range of stakeholders to share knowledge, ideas and facilitate collaboration. We have shared multiple ecosystem services and run-off modelling through a web map to locate interventions for multiple benefits and collaborative projects. We have reduced arable run-off using silt traps through a series of projects and the Water Sensitive Farming project has promoted and funded: compaction remediation, tramline management, cover crops, reduced tillage, controlled traffic, under sowing, mechanical weeding and regenerative agriculture.

The Broadland Slow the Flow project (2015 – 2016) constructed eight rural SuDS across the catchment using £31K from Defra's Catchment Partnership Action Fund (CPAF). These acted as demonstration sites and over one hundred farmers visited the schemes. The final schemes were completed in March 2016 using independent contractors and the Broads and Norfolk Rivers Internal Drainage Board.

The water sensitive farming project was funded through WaterLife and the WWF-UK and Coca-Cola Freshwater Partnership (2015 – 2018) and delivered water sensitive farming approaches where sugar beet is grown as part of the rotation. It was very successful and involved silt trap construction on farms, tramline disruption and knowledge sharing events for farmers across the catchment.

The University of East Anglia's Demonstration Test Catchment project (2009-2020) was part of a £12 million UK government funded initiative to evaluate the extent to which on-farm mitigation measures could cost-effectively reduce the impacts of agricultural pollution on aquatic ecology whilst maintaining food production capacity. This project deployed a comprehensive network of bankside telemetered sensor technologies across 20 km^2 of the River Wensum catchment which generated 8.9 million high-temporal resolution hydrological and hydrochemical measurements of surface water, soil water, groundwater and meteorological parameters from which the effectiveness of cover crops, reduced tillage, sediment traps, and biobeds could be accurately evaluated.

We have been working closely with The Upper Wensum Cluster Farm Group (Wensum Farmers) for 7 years (2015 -) who have established an innovative water quality testing programme to measure their impact upon nutrient leaching and run-off.

The Wensum Catchment Partnership (2018 -) was formed, supported by an officer to facilitate river habitat improvement and diffuse pollution reduction, who have established a citizen science water quality testing pilot run through Norfolk Rivers Trust.

The Waveney Catchment Partnership has been working with volunteers, agronomists and farmers to improve land management, river and riparian habitats, and hay meadows working closely with The Waveney Farm Cluster, which has received funding for a project working with farmers to reduce fertiliser application and monitor runoff.

We have enhanced river habitat in many of the catchments, most notably via the Upper Bure Valley (Riverlands) Partnership (2018 -) and undertaken Natural Flood Management at

Buxton (Bure) and Worthing (Wensum). We have improved fish passage most recently on the River Tiffey (Yare).

We are now building on our successes and looking to collaborate with more stakeholders, at the strategic and local level. We are exploring new ideas and projects with people and organisations who share the same goals, such as Water Resources East, the DEFRA Environmental Land Management pilots, WWF and private companies (e.g. Coca-Cola and Tesco). We will also engage with local people through citizen science including water quality monitoring (e.g. CastCo) and through opportunities such as exploring the creation of new river bathing water sites (e.g., River Waveney at Bungay).

Catchment Facts and Figures

The Broadland catchment drains an area of 3200 km^2 of predominantly rural land. It includes around two thirds of Norfolk and part of north Suffolk. The largest settlements include the city of Norwich and the seaside towns of Great Yarmouth and Lowestoft.

Rivers

The four main rivers are the Bure, Wensum, Yare and Waveney. The Bure, Wensum and Yare are recognised as globally rare chalk stream habitats which derive a significant proportion of their flow from the underlying chalk aquifer, resulting in cool, mineral-rich water and stable flows that support a host of unique species. Precipitation that falls within the catchment either percolates down into groundwater or drains or is pumped into the rivers. It ultimately flows through, or under, the Broads area and out to the North Sea at Great Yarmouth and Lowestoft. As the rivers reach the Broads Executive Area - where the land is mostly at or below sea level - they become wide, slow flowing and tidal. Most of the rivers have been modified (are no longer natural in their form) for the purpose of agricultural land drainage, historic milling and flood risk management.

The Broads

The Broads is a member of the national park family and is Britain's largest designated wetland. It is recognised to be of conservation interest and protected by law for the rare habitats and endemic species associated with the marshes and ditches. The area includes over 60 shallow lakes or 'broads' created by medieval peat diggings and flooded by rising sea levels. It is one of Europe's most popular inland waterways.

Water supply and treatment

The groundwater, rivers and broads of the catchment provide sources of public drinking water and support water dependent industries, especially around Norwich. It is acknowledged that water demand will outstrip supply in the near future and water companies are working on potential solutions to this challenge, but there are actions that we can all do to help.

Private drinking water and agricultural supplies are located throughout the catchment. Most public sewage treatment works ('water recycling centres') return wastewater to rivers, but some discharge directly into the sea. There are several large industrial wastewater systems

and many private sewage treatment works, including septic tanks, which discharge to rivers or to ground.

In recent years there have been increasing policies which have been introduced to address challenges to the water environment:

Nutrient Neutrality impacts large parts of the Broadland Catchment, where development can only be permitted if it leads to no net increase in nitrogen or phosphorus in the catchment.

Diffuse Water Pollution Plans have been produced by Natural England and the Environment Agency to protect sites of European importance. These include measures to reduce pollution from highways and road crossings.

Restoring Sustainable Abstraction Programme entails the Environment Agency engaging with abstractors from all sectors to help make their abstractions more sustainable by reducing the amount of water taken from the environment.

Regional plan for Water Resources Water Resources East has been tasked by government under the National Framework for Water Resources to create a regional water resources plan for Eastern England that looks ahead to 2050 and beyond.

Population and Demographics

There are areas of higher population density across the catchment, primarily Norwich, Great Yarmouth and Lowestoft. The rest of the catchment has low population densities, reflecting the fact that it is a largely rural catchment. The population of the catchment is around 850,000 permanent residents. Tourism, agriculture, and food and drink processing are essential to the economy. Around eight million people visit the Broads every year, supporting thousands of jobs and having an impact of around £660m on the local economy (based on STEAM data 2019, Broads including influence area).

The Broadland catchment has an older (50 - 64 vs 35 - 64) and whiter (94% vs 81%) population than England as a whole. It also has a slightly higher percentage of people with no or lower qualifications (27% vs 34% have level 4 qualifications or above) and proportion of people who are disabled (20% vs 17%). Using the household deprivation index, the catchment is more deprived than England as a whole, with 46% of houses not deprived in any dimension compared to 48% across England. The catchment has a higher percentage of people working in agriculture compared to England (2% vs 1%), which reflects the rural nature of the catchment in which ~6000 jobs rely directly on farming. There is also a higher percentage of people working in health and social care (17% vs 15%).

Recreation

Boating, walking, angling and birdwatching are popular activities throughout the catchment and on the coast. There is excellent inland navigation mainly in the Broads. Angling for coarse fish is particularly popular on tidal rivers, with renowned barbel fishing on the River Wensum and brown trout fishing on the upper Bure and Wensum. Bathing beaches on the Norfolk and Suffolk coast currently meet European guideline standards.

Figure 1 Location of the catchment, tidal limits, major settlements, roads and rivers. © Environment Agency copyright and/or database right 2014. All rights reserved. Contains OS data © Crown copyright [and database right] 2025.

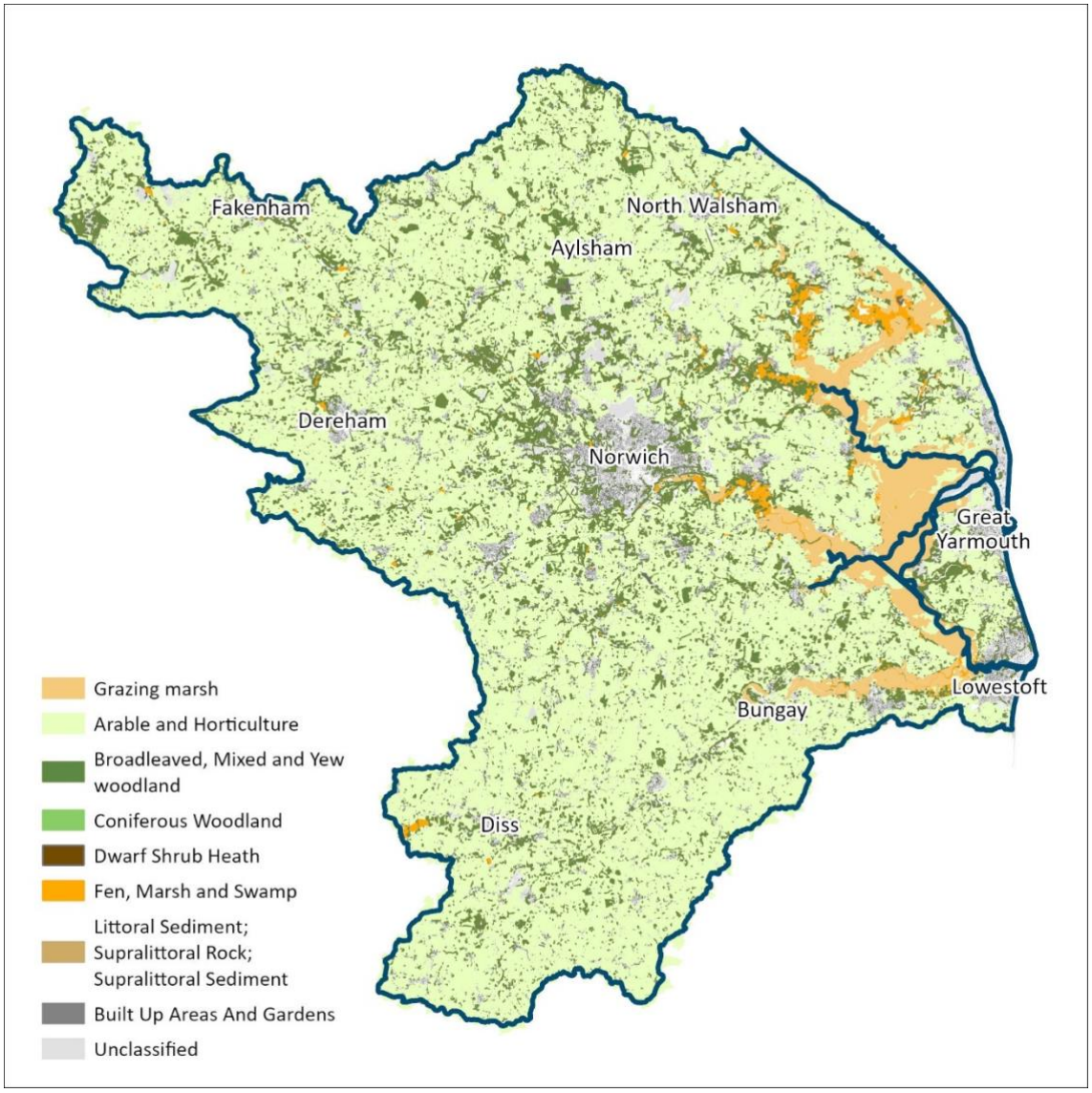

Figure 2 Land use. © Broads Authority. © Environment Agency copyright and/or database right 2015. All rights reserved. © Crown copyright and database rights 2025 OS AC0000814754.

Land use

Most land within the catchment (around 80%) is used for agriculture, with grazing meadows and semi-natural fens in river valleys and around the broads. There are small, scattered areas of woodland, scrub and heath. Much of the land is classified as high grade (grades 1-3) for agricultural production and crop yields are high in comparison with the national average. Agricultural land management dominates the landscape of the catchment.

In rural areas, the land has been extensively drained with under-field drains, ditches and catch-dykes. River channels have also been artificially deepened and straightened to drain the surrounding agricultural land in order to support increased crop productivity. Thirty-six water pumps and 746 km of watercourse are maintained across the Broadland catchment.

Flood risk management, including construction and maintenance of embankments, walls and flow regulating structures, reduces flood risk to agricultural land, infrastructure and properties, and over 30,000 people.

Wildlife and landscape designations

The catchment contains many sites of international nature conservation importance with a range of habitats, supporting a diversity of species, including some that are exceptionally rare.

The Waveney & Little Ouse Valley Fens, the Norfolk Valley Fens, the River Wensum, The Broads and Winterton-Horsey Dunes are all Special Areas of Conservation (SACs) designated for the presence of species and habitats of European significance. The Broadland and Breydon Water Special Protection Areas (SPAs) and Ramsar sites are designated for internationally important birdlife. There are over 90 Sites of Special Scientific Interest (SSSIs) across the catchment and many County Wildlife Sites (CWS) and Local Nature Reserves (LNRs). Small areas are part of the Norfolk Coast National Landscape.

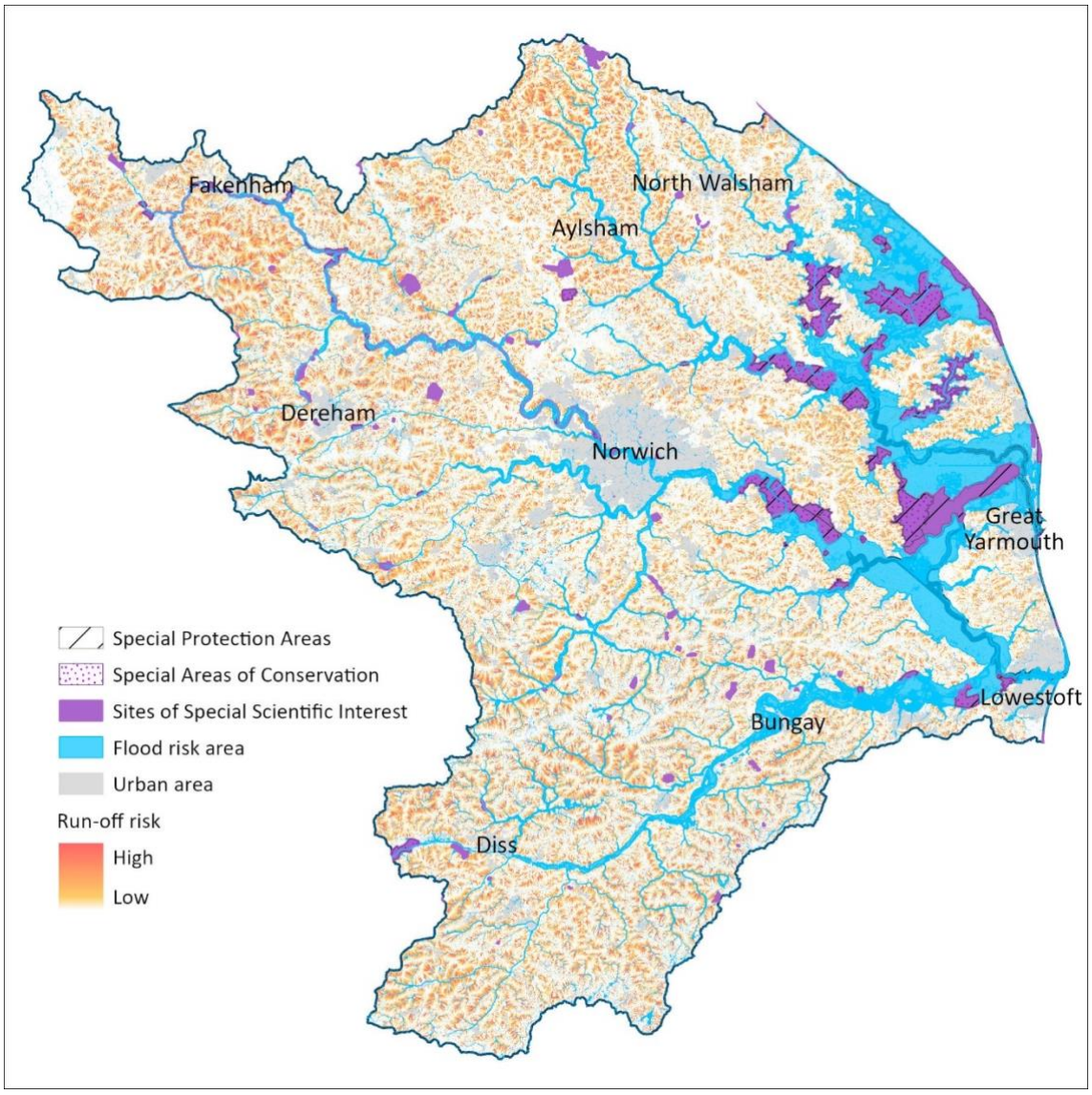

Figure 3 Wildlife habitats, landscape designations, flood risk and run-off risk from rural areas. SciMap model developed by Durham University.

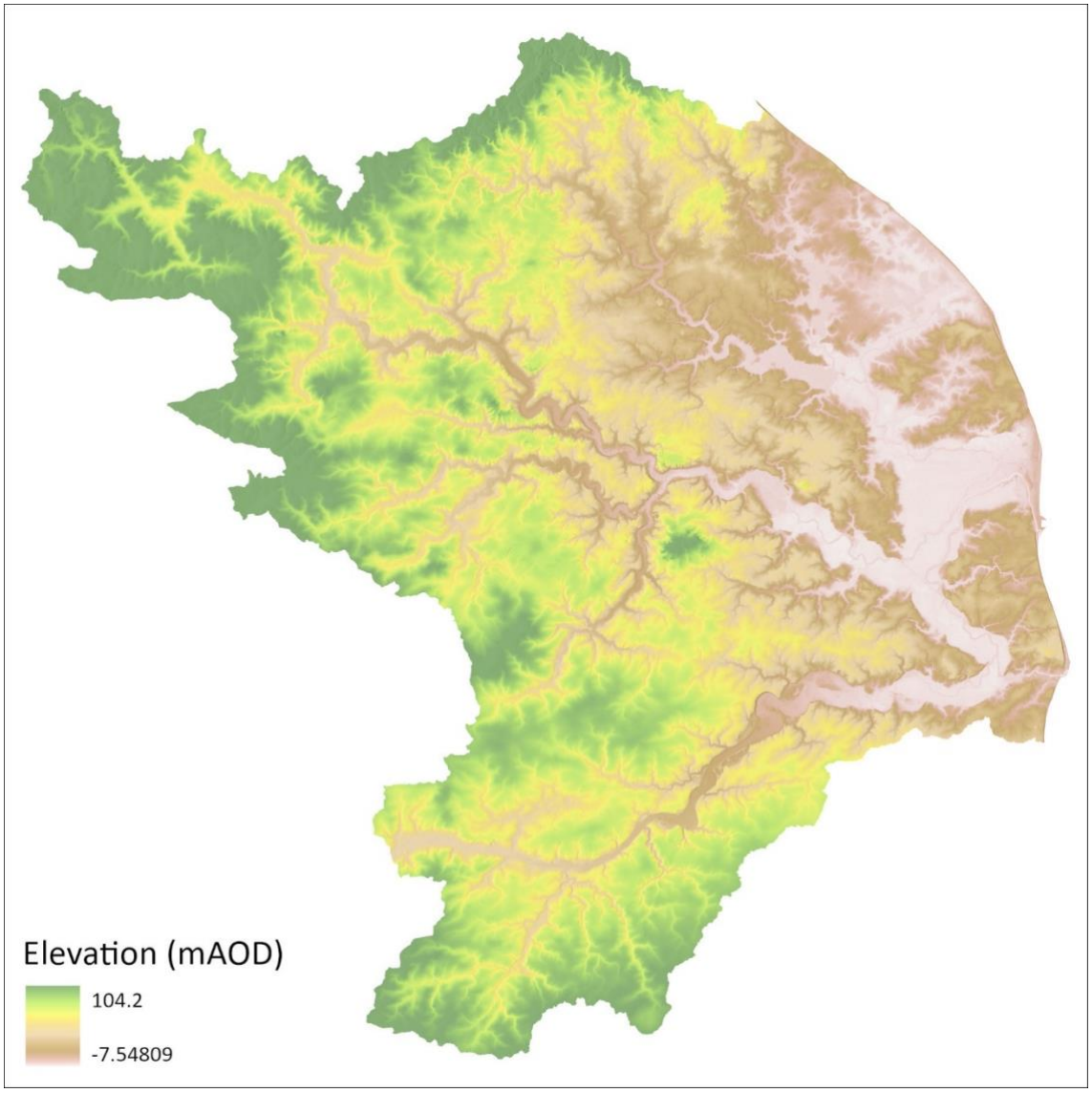

Figure 4 Elevation.

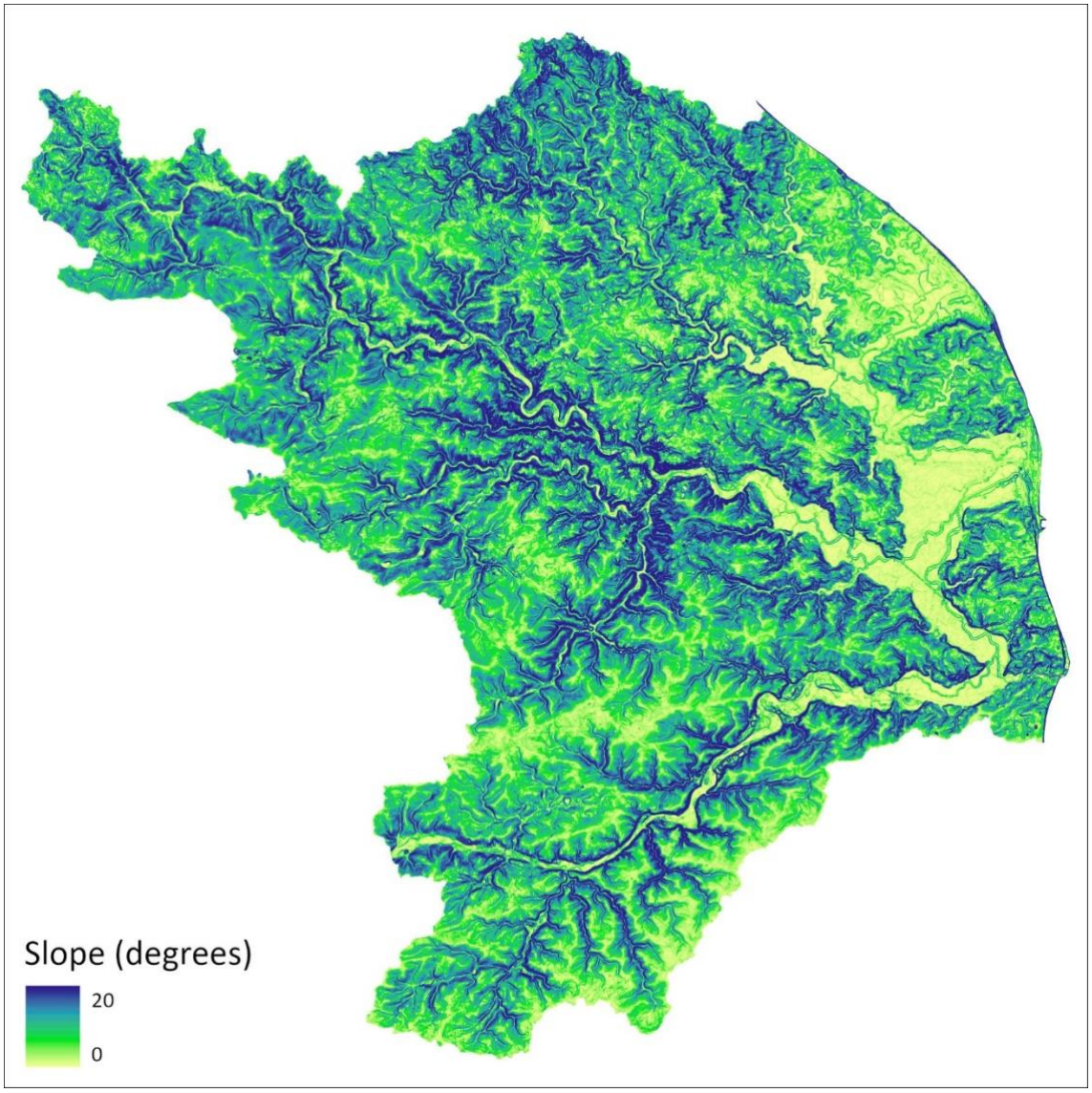

Figure 5 Slope. © Environment Agency copyright and/or database right 2022. All rights reserved.

Elevation and slope

The catchment is low-lying with highest elevations to the north and west and a maximum elevation of around 100 m above sea level. The land is predominantly gently sloping with steeper gradients bordering the river valleys to the south and west. Rainfall is relatively low with higher average levels to the west. Heavy rainfall can occur at all times of the year.

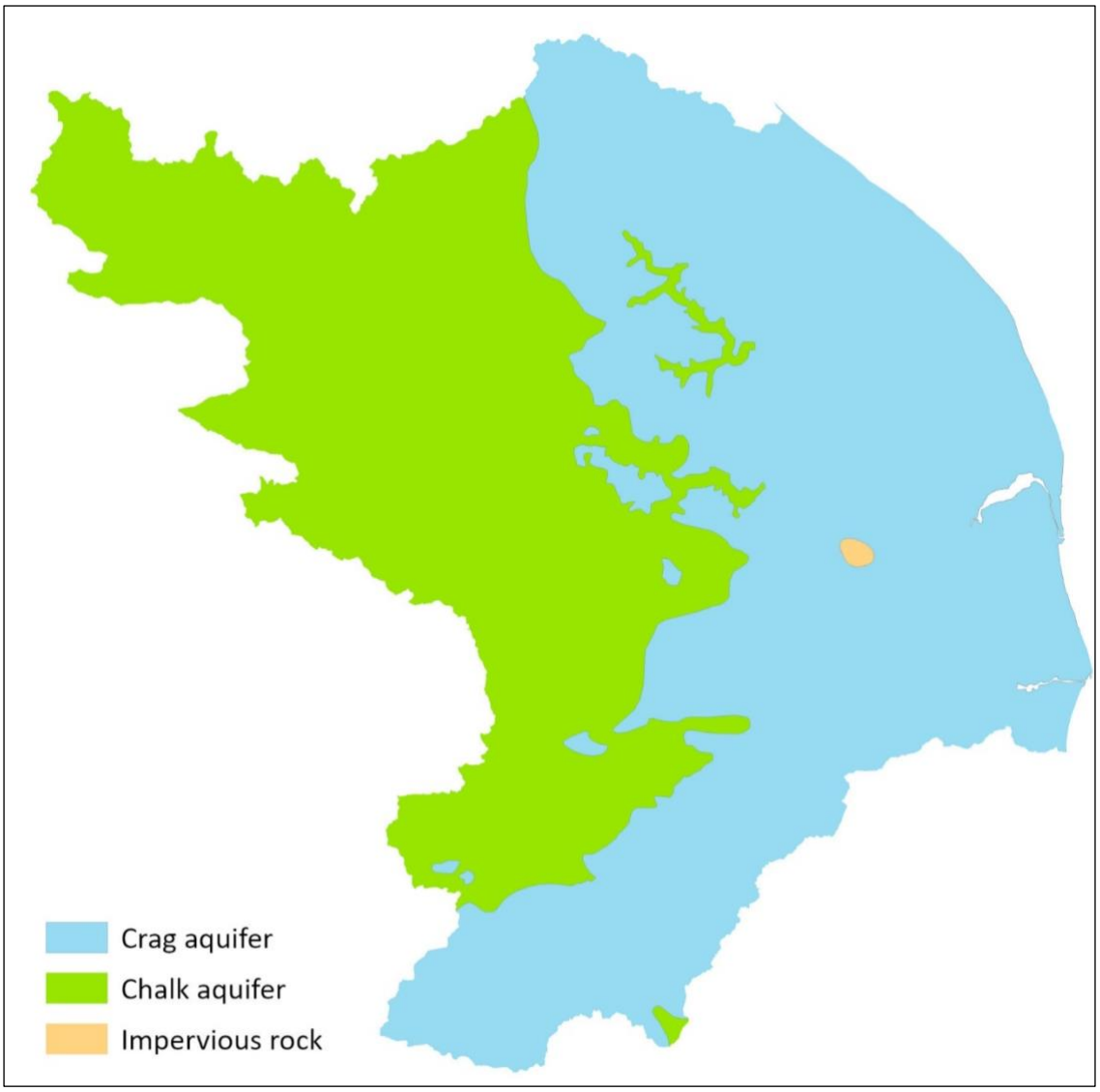

Figure 6 Geology. Contains British Geological Survey materials © UKRI 2025.

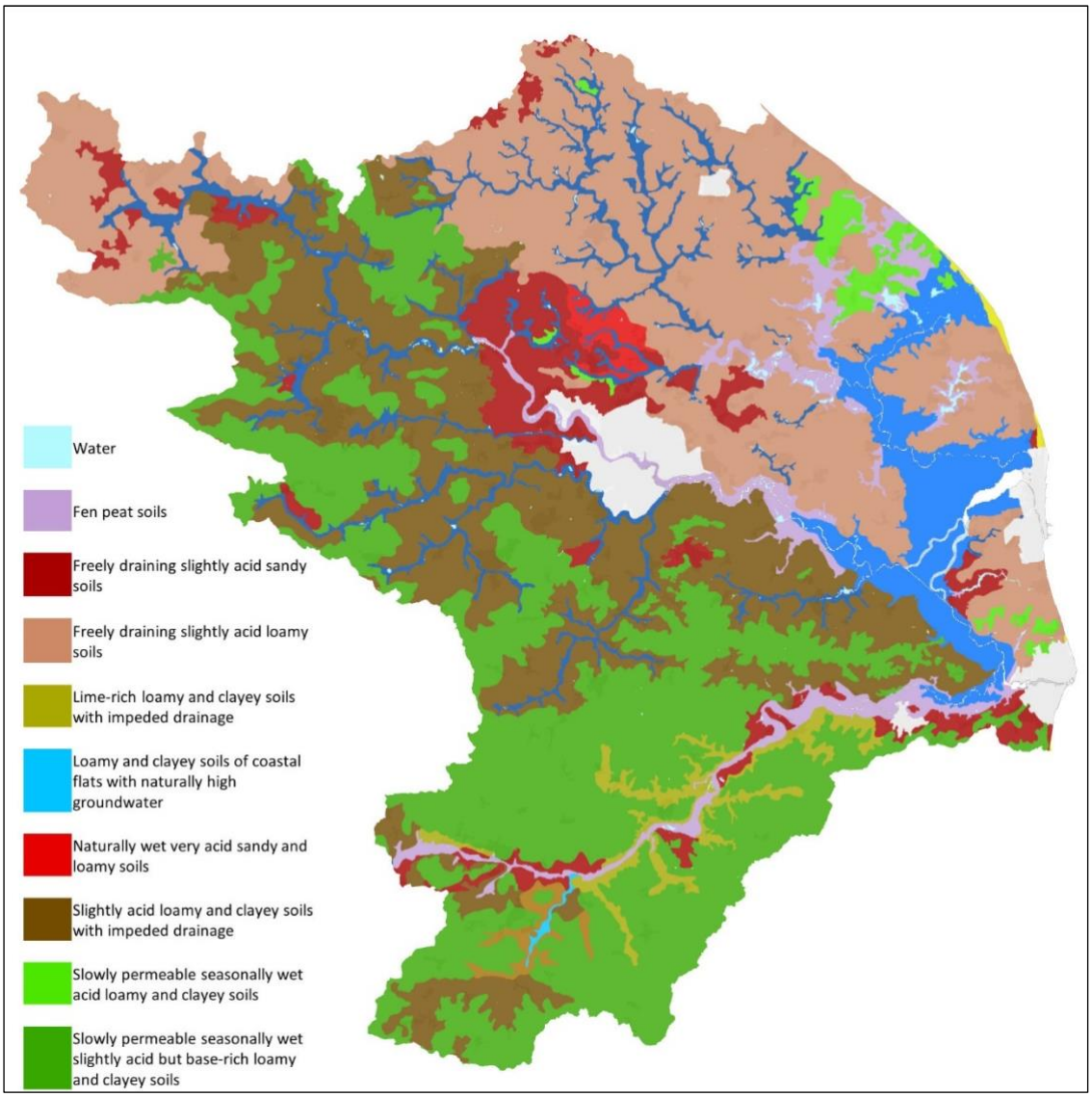

Figure 7 Simplified Soil. Soils data © Cranfield University (NSRI) used with permission.

Map 7 Simplified soil

Geology and soils

The underlying geology is Upper Cretaceous White Chalk to the west and Pliocene and Pleistocene Crag (gravel, sand and silt mix) to the east. This is largely covered by superficial Quaternary glacial deposits of sand, silt and clay. Chalk is close to the surface or even exposed in some locations, mainly in the north-west, giving rise to chalk streams. The BGS Geology viewer can be used for more detailed information.

In general terms, peat occurs around the Broads and along the river valleys upstream of Norwich; finer, sandier soils occur to the north and east; and heavier clay soils are found to the south and west. In reality, there is considerable variability in soil type even within individual fields. Cranfield University Soilscapes viewer gives more detailed information on this.

Peatland Restoration

Degraded peatland soils are currently a net contributor to carbon emissions in the catchment. These soils hold huge potential for carbon storage if managed correctly with a higher watertable, however this requires water in summer to keep the site wet at a time when this resource is highly in demand. The Broads Authority have been working with partners including Norfolk FWAG and Cranfield University on projects around peat restoration and paludiculture.

Sub-catchment Partnerships

The Broadland Catchment is a large area with four main rivers. Some of these rivers have developed catchment partnerships at a river catchment level, which feed into the overarching Broadland Catchment Partnership. Our ambition is to support and build upon these partnerships to strengthen the work being done at a river catchment level and promote increased community involvement in the partnerships.

Wensum Catchment Partnership

Hosted by Norfolk Rivers Trust, this partnership encompasses the River Wensum and its tributaries. The partnership has a management group, a main partnership, and three working groups that come together to work on ecology, morphology, and water quality. They have worked closely with the CaSTCo project to develop a collaborative monitoring plan for the catchment.

Waveney Catchment Partnership

This partnership is hosted by Essex and Suffolk Water and encompasses the River Waveney and its tributaries. It is a relatively small group of water companies, eNGOs, statutory bodies and farmers which meets quarterly to discuss work and issues in the catchment.

Priorities for the sub-catchment partnerships

1. Longer term sustainable funding for officer time to facilitate the partnerships
2. A move towards more collaborative project planning and working
3. Developing these sub-catchment partnerships in other areas of the Broadland Catchment

What are the problems?

Priority catchment wide issues based around key themes of water quality, water quantity, wildlife habitat and recreation have been agreed with all interest groups. These themes are taken from the River Basin Catchment challenges identified by the partnership. A separate Evidence Review summarises and signposts the best available scientific evidence around causes of the problems and specific solutions. The Evidence Review includes findings from the University of East Anglia and Environment Agency and water company monitoring and modelling. Findings have been used to inform actions based around the goals and activity areas for this plan. Most issues have a range of causes so certain activity areas can address multiple issues if effective measures are well targeted.

Current catchment challenges

- Physical modifications: Historic watercourse deepening/straightening/impounding with low lying drained and flood defended land
- Pollution from agriculture and rural areas: Arable agriculture is major land use, additional nutrient input from livestock on the marshes and erosion of road verges
- Pollution from wastewater: Small sewage treatment works without phosphate removal, septic tanks and domestic treatment plants common in rural areas
- Nature Recovery, protect and enhance rare habitats including chalk streams: Chalk streams are an important habitat in the catchment, and protecting aquatic habitats is part of the catchment management plan. Some habitats, especially water and wetland related, protected due to their internationally important bird life or rare and diverse wildlife, still do not meet European Habitats Directive standards for reasons including excessive nutrients and sediment.
- Storm overflows and drainage system incidents: Discharge of raw or partially treated sewage from wastewater treatment work overflows directly into rivers during rainfall events.
- Protect and restore healthy soils and nutrient balance: In a catchment dominated by intensive arable agriculture, mitigating nutrient pollution is key to achieving water quality targets.
- Build environmental resilience and adaptation to climate change: Water availability is a growing challenge for the catchment and the impacts of flood and drought events will increase under climate change. Saline intrusion from rising sea levels is also an increasing threat along the fluvial tidal reaches.
- Support Nature Recovery Network and Local Nature Recovery Strategy: Water quality and quantity will form a key part of this so it will be important for the catchment partnership to engage.
- Removing plastics/litter from the water environment: This is becoming an increasing issue which engages local residents and river users and opens up opportunities for citizen science involvement.
- 100% of rivers are failing to meet European Water Framework Directive targets due to the presence of uPBTs (ubiquitous, persistent, bioaccumulative and toxic substances).

Future challenges predicted

As we look to the future, climate change will lead to more unpredictable weather, with summer droughts and winter flooding becoming more commonplace. This will exacerbate issues around water resource availability, salinity incursions and flooding. Alongside this, a growing population will result in more housebuilding, putting greater pressure on our aging sewerage system, and there are likely to be new and emerging pollutants such as uPBTs which emerge as threats to the environment and human health.

We can work together now to address these challenges, and to create a more resilient catchment which is ready to face the changing world in a proactive rather than reactive manner, working towards a better future for all.

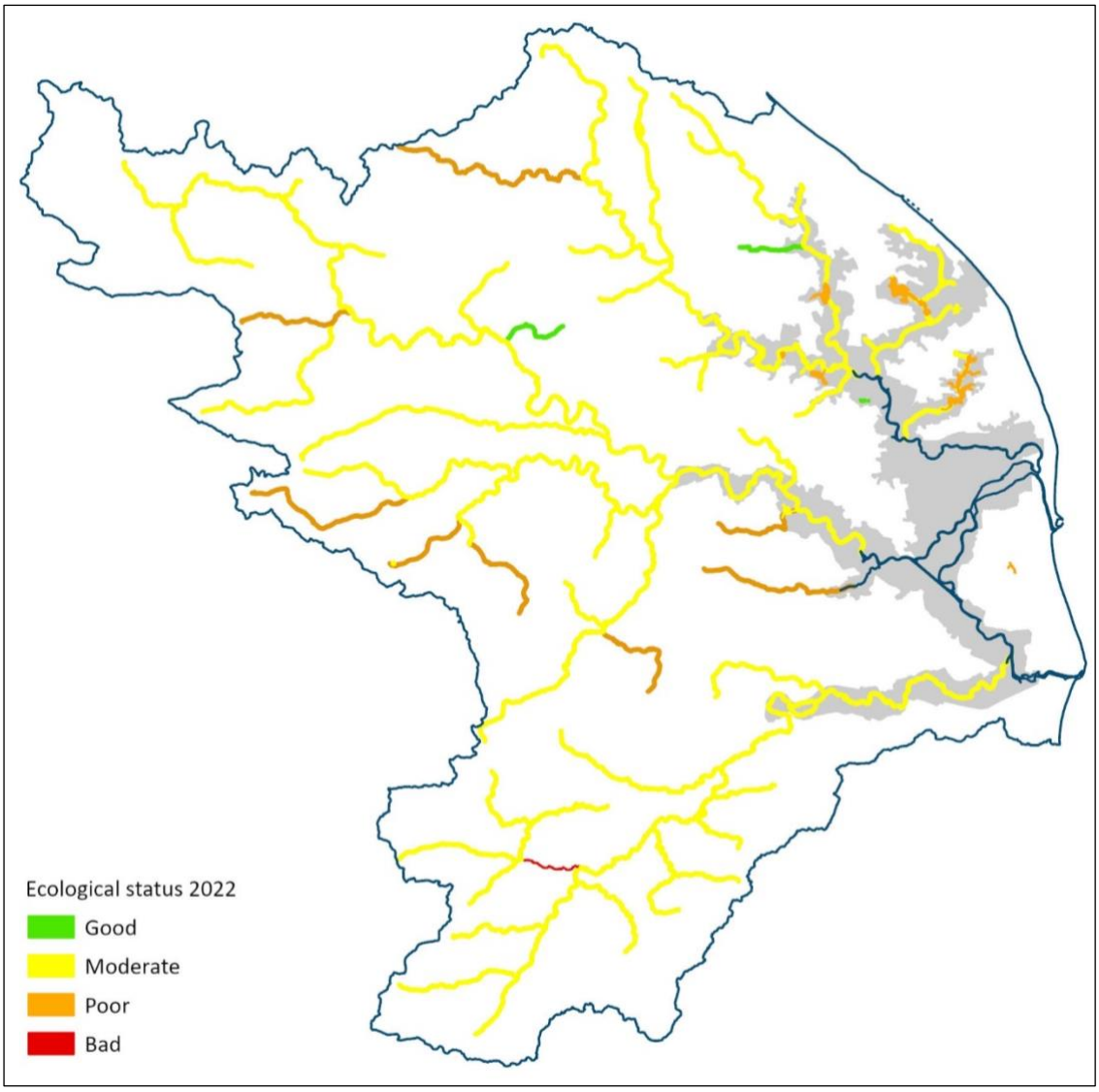

Figure 8 Water Framework Directive Status (ecology only) 2022. © Environment Agency copyright and/or database right 2015. All rights reserved.

Historic, current and future pressures

- Following food shortages and rationing during the Second World War, farmers were encouraged by government and the public to produce more plentiful and cheaper food. This resulted in the installation of more efficient pump systems to drain low-lying areas of the catchment and the removal of hedgerows to bring more land into agricultural production.
- Water is in high demand from farmers, water companies and the environment, and as climate change is increasing the risk of drought, balancing demand and supply is becoming more challenging. Climate projections are for an increase in average temperature with drier summers, wetter winters and more intense rainfall which will exacerbate the issue.
- Planned development of over 40,000 new homes by 2029 and seasonal population increases through tourism, will also increase the pressure on water availability and water quality.
- Unrestricted recreational use by tourists, dog walkers and an increase in footfall to sites since covid has increased disturbance of wildlife, in particular breeding birds.
- The phasing out of the Basic Payment Scheme (BPS) for farmers and the rollout of the new Environmental Land Management Scheme (ELMS) has the potential to increase investment in sustainable land management, but uncertainty around the scheme has resulted in some distrust within the farming community.

Some current and future opportunities

- Scientific research and development is producing drought and disease resistant cultivars and nutrient fixing crops. Technological innovations are also providing more efficient watering and harvesting systems. Precision farming reduces nutrient and pesticide use and soil compaction. Lighter weight farm vehicles have also been developed.
- Improved markets for local, less intensively produced food, crafts and fuel could prevent further loss of important grazing marsh and fen habitat. Rush, sedge, and reed are harvested from local wetlands. Local beef from the Broads and river valley grazing marshes can potentially command higher prices.
- Nature-based solutions such as constructed wetlands have the potential to help tackle water pollution issues around wastewater treatment works.
- Opportunities to access private finance for carbon and nutrient mitigation, as well as Biodiversity Net Gain, are increasing.

What's happening to solve the problems?

Many different organisations are working within specific sectors to improve the catchment and protect their members' interests (the various roles of relevant statutory, member and charitable organisations are summarised at the end of this plan). There are also several initiatives in place, (as outlined opposite). The partnership wants to join up all this work, share resources and involve local businesses and communities in developing, funding and carrying out projects. There will also be substantial investment from many organisations including the Environment Agency, local water companies and the Broads Authority.

River Basin Management Plan

The Anglian River Basin Management Plan published by the Environment Agency outlines work that a range of organisations will undertake within the region, including the Broadland Rivers Catchment, to comply with the Water Framework Directive, based on current status and reasons for failures. The plan was updated in 2022 and includes a catchment partnership page which outlines the work of the Broadland Rivers Catchment. This page outlines the current and future challenges identified by the partnership.

Water Company Business Plans

Anglian Water is the sole public sewerage provider in the catchment and also provides public drinking water supply to much of the catchment's population. Its Business Plan (2025 - 2030) includes actions it will take to maintain and improve these services. For AMP8, Anglian Water produced an 'Advanced WINEP' which is working more collaboratively with partners around the catchment to achieve environmental outcomes.

Essex & Suffolk Water provides public drinking water supply to parts of Norfolk and Suffolk in the east of the catchment. It is owned by Northumbrian Water and its Business Plan (2025 - 2030) contains the actions it will take to maintain and improve this service.

Broads Plan

The Broads plan (2022 – 2027) is the key strategic management plan for the Broads and is reviewed at least every five years. Climate change and flood risk, biodiversity and agriculture, navigation and protecting the landscape character are key themes. It includes actions for a range of organisations, based on partnership working and best use of shared resources.

Some water or wildlife related initiatives

Diffuse Water Pollution Plans have been produced by Natural England and the Environment Agency to protect sites of European importance. These include measures to reduce pollution from highways and road crossings

The Norfolk Rivers Trust has experience of working with farmers, landowners and communities to protect soil, water and wildlife across Norfolk.

The River Waveney Trust has experience of working with farmers, landowners and communities to protect soil, water and wildlife across the Waveney Catchment (Norfolk and Suffolk)

The Water Management Alliance deliver flood risk management across their counties.

The Norfolk Water Strategy Programme has been set up by Water Resources East, together with Norfolk County Council, Anglian Water and The Nature Conservancy to secure long term water resources for all users in Norfolk, with a focus on scaling up and targeting nature-based solutions and facilitating blended finance.

The Norfolk and Suffolk Biodiversity Partnerships conserve, enhance and restore biodiversity across their counties.

The CaSTCo project led by the Rivers Trust has set up citizen science monitoring of water quality in the Wensum Catchment

RSPB Species Coastal and Wetlands programme is working to help landowners create wet grassland for breeding waders in the Broads. This includes modelling how water levels could potentially be raised to deliver benefits for breeding waders and wildfowl, to use for tailored advice on how to enhance grazing marsh and support new and existing grassland Agri-Environment schemes.

UK legislation and payments for land management

The UK Environment Act was passed into law in 2021, with the goal of tackling the climate and nature crisis. It includes a goal to protect 30% of land and sea for nature by 2030 and includes requirements for Biodiversity Net Gain in planning applications, as well as the development of Local Nature Recovery Strategies.

Local Nature Recovery Strategies will be developed across the country. There will be 48 strategy areas across England, each one with a responsible authority to lead on preparing a local nature recovery strategy for their area. Of relevance to the Broadland Catchment, there will be one strategy for Norfolk lead by Norfolk County Council, and one for Suffolk lead by Suffolk County Council. These plans will set out the plan for interconnected sites for nature and should all be in place by March 2025.

Biodiversity Net Gain may provide a potential avenue of funding for biodiversity projects in the catchment, where development cannot deliver the required biodiversity gain on site.

Nutrient Neutrality – large parts of the Broadland Catchment are nutrient neutrality areas, where development can only be permitted if it leads to no net increase in nitrogen or phosphorus in the catchment. The Wensum and the Broads are both Nutrient Neutrality areas. Once again, this may provide an opportunity for funding of projects reducing nutrients in these areas, including nature-based solutions.

The lowland agricultural peatland taskforce was established by Defra in 2021 to shape more sustainable management regimes. The final report sets out 14 recommendations to ensure this sustainable management.

Environmental Land Management Scheme

The new land management scheme developed by the UK government has seen the phasing out of the BPS payments and therefore a requirement for farmers to adapt to a new system.

By 2028, the government aims for 70% of farmed land and 70% of all farms to be in a scheme.

The Sustainable Farming Incentive (SFI) pays farmers for sustainable farm practices that protect and enhance the natural environment whilst maintaining food production and supporting productivity. It has a low barrier to entry and several options which can be selected, with new options being added regularly.

Countryside Stewardship pays for more targeted actions for specific locations and habitats. The scheme aims to target incentives to where they will have the biggest impacts and encourage joined up working across larger areas.

Landscape Recovery supports large landscape projects looking at nature recovery and funding long term projects looking at blending public and private finance. There were two Norfolk projects funded in round one of the scheme (North Norfolk: Wilder, wetter, better for nature, and the Waveney and Little Ouse Recovery project) and two in round two (North-West Norfolk Coast Project, and the West Norfolk Nature Network).

The sections below outline the work that has been completed by the Broadland Catchment Partnership and the current policies related to the partnership goals. For current action the partnership is taking, please see the Action Plan.

1. Land management

Goal: Reduce agrochemical pollution, minimise soil erosion, improve soil health, and link habitats and public access

Farm advice

Just within the catchment member organisations, over 30 land advisers work across the catchment. Essex & Suffolk Water employs it's own catchment advisers who work in partnership to provide whole farm pollution prevention advice and training to farmers upstream of public water supply sources in the Waveney and Bure catchments. Anglian Water also employs catchment advisors who work in the Anglian Water catchment of the Broads, including the Wensum.

Catchment Sensitive Farming (CSF) is a partnership between Natural England and the Environment Agency working across the catchment to reduce water pollution from agriculture. It delivers practical solutions and targeted support, including capital grants, to enable farmers and land managers to take voluntary action to reduce diffuse water pollution from agriculture.

Norfolk Farming and Wildlife Advisory Group (FWAG) encourages farmers to protect and enhance the environment and provides case studies. It's advisors assist farmers in choosing, locating and managing suitable voluntary measures and environmental stewardship options to protect soil and water, and benefit wildlife. Norfolk Rivers Trust and the River Waveney Trust also provide farm advice and funding for projects in the catchment. This includes silt traps and river restoration, tree planting and more.

The Norfolk and Suffolk Farm Advisors group was established by Norfolk Rivers Trust in 2024 and provides a network for collaborative working and sharing funding and events between farm advisors in the area.

Raw drinking water protection

Groundwater Source Protection Zones (SPZs) have been defined around sources used for public drinking water supply. The zones are used to set up pollution prevention measures and to monitor the activities of potential polluters nearby. Drinking Water Protected Areas (DrWPAs) are waterbodies where large quantities of raw water are abstracted for human consumption. Safeguard Zones are areas upstream of 'at risk' DrWPAs, where raw water quality needs to be improved to avoid extra treatment at drinking water treatment works, and where action plans are in place to protect waterbodies.

The Waveney and Wensum catchments are Safeguard Zones and there are various candidate groundwater Safeguard Zones across the catchment. Anglian Water and Essex & Suffolk Water carry out monitoring, investigations and modelling to identify high risk areas upstream of their river abstractions. Information is shared with relevant groups including farmers to agree remedial actions.

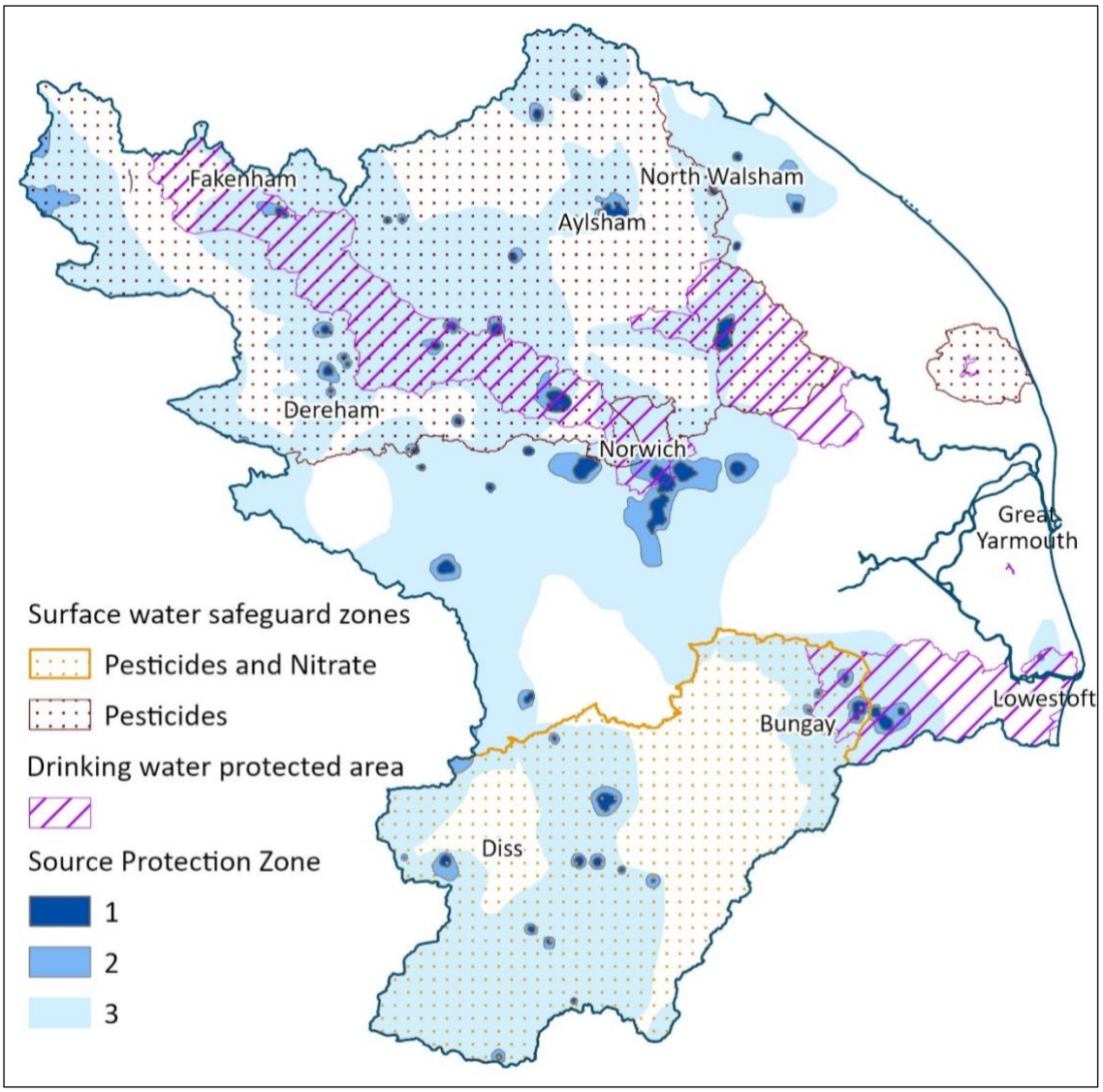

Figure 9 Drinking Water Protected Areas, safeguard zones and source protection zones. © Environment Agency copyright and/or database right 2016, 2022. All rights reserved.

2. Wastewater management

Goal: Reduce pollutants in watercourses from public and private wastewater

Anglian Water, as the sole public sewerage provider in the catchment, is responsible for the collection, treatment and disposal of sewage to standards set by UK and European law and regulated by the Environment Agency. The company has invested millions of pounds over the past 25 years in conventional phosphorus removal (iron dosing or ferric stripping) at many sewage treatment works (water recycling centres) in the catchment, in excess of legal requirements in some cases. This has been of great benefit to water quality and protected wetlands, but the treatment is relatively expensive and energy intensive to build and run, which results in relatively high carbon emissions.

The majority of residents in the catchment (those who receive public sewerage services) pay for these benefits to the water environment. Anglian Water surveys suggest that most of their customers are accepting of their water bill, including investment in the environment, but would not want to pay any more than at present. Installation of conventional phosphorus removal at small sewage treatment works would have high costs, potentially increase traffic on rural roads through delivery of raw materials for treatment and lack wider benefits.

There is increasing interest in the use of constructed wetlands on small works to provide additional removal of pollutants, as has been demonstrated at Ingoldisthorpe water recycling centre. Nature-based solutions like this are less energy intensive than conventional treatment solutions and have co-benefits for wildlife and people.

Nutrient Neutrality

Nutrient Neutrality laws were brought into place in the Wensum and the Broads in 2023, and now new development in these areas must mitigate for any additional nitrates and phosphates which are entering the system. Norfolk Environmental Credits is a not-for-profit organisation providing credits to developers to unlock development. Solutions for nutrient mitigation include taking land out of farming, building constructed wetlands or reed beds, replacement of old septic tanks with package treatment plants and more.

Private sewage package treatment plants and septic tanks, misconnections and discharge from boats all have a relatively small impact at a catchment scale but can cause serious localised water quality problems. There is limited legal requirement to register private sewage treatment works. Working with local rural communities to increase awareness and improve management practice is likely to be a cost-effective way to address this issue.

Raising awareness

Anglian Water's Keep it Clear campaign discourages people from putting the wrong things down sinks and toilets which lead to serious sewer blockages and sometimes overflows. The campaign has helped reduce sewer blockages by an average of 50% in locations in Peterborough and has been taken to Norwich.

Storm Overflows

The Storm Overflows Discharge Reduction Plan was updated in 2023 to address the issue of Combined Sewer Overflows (CSOs) and the impact that they have on water quality. Anglian Water now has monitors on all their storm overflows, and the Rivers Trust publish an annual map documenting spills locations and duration. The plan sets out that by 2035, water companies will have: improved all storm overflows discharging near every designated bathing water; and improved 75% of storm overflows discharging into or near 'high priority sites' and by 2050, no storm overflows will be permitted to operate outside of unusually heavy rainfall or to cause any adverse ecological harm.

Citizen science and monitoring

There has been an increasing focus in the catchment on citizen science for water quality monitoring. The Wensum Catchment Partnership has been running citizen science water quality testing as part of the CaSTCo project, working with the Rivers Trust, Anglian Water and the Environment Agency to identify and address pollution issues. The River Waveney Trust has also been running a citizen science water testing project part funded by Anglian Water, focused on achieving bathing water status at a site on the Waveney.

Other pollutants

There is increasing awareness of the impact of other pollutants such as microplastics, pathogens heavy metals, and organic contaminants in wastewater discharge and this is becoming an active area for research For example, the University of East Anglia is embarking on a four year research programme (2024-2028) to monitor concentrations of so called 'forever chemicals' such as PFAS across the River Wensum catchment and to determine if constructed wetlands could provide a mitigate solution to them at wastewater treatment works. Additionally, PFBs are a major reason why rivers are not achieving good status and more research is needed into this area. Chemical and plastic pollution from highways is another source which has not yet been addressed in the catchment.

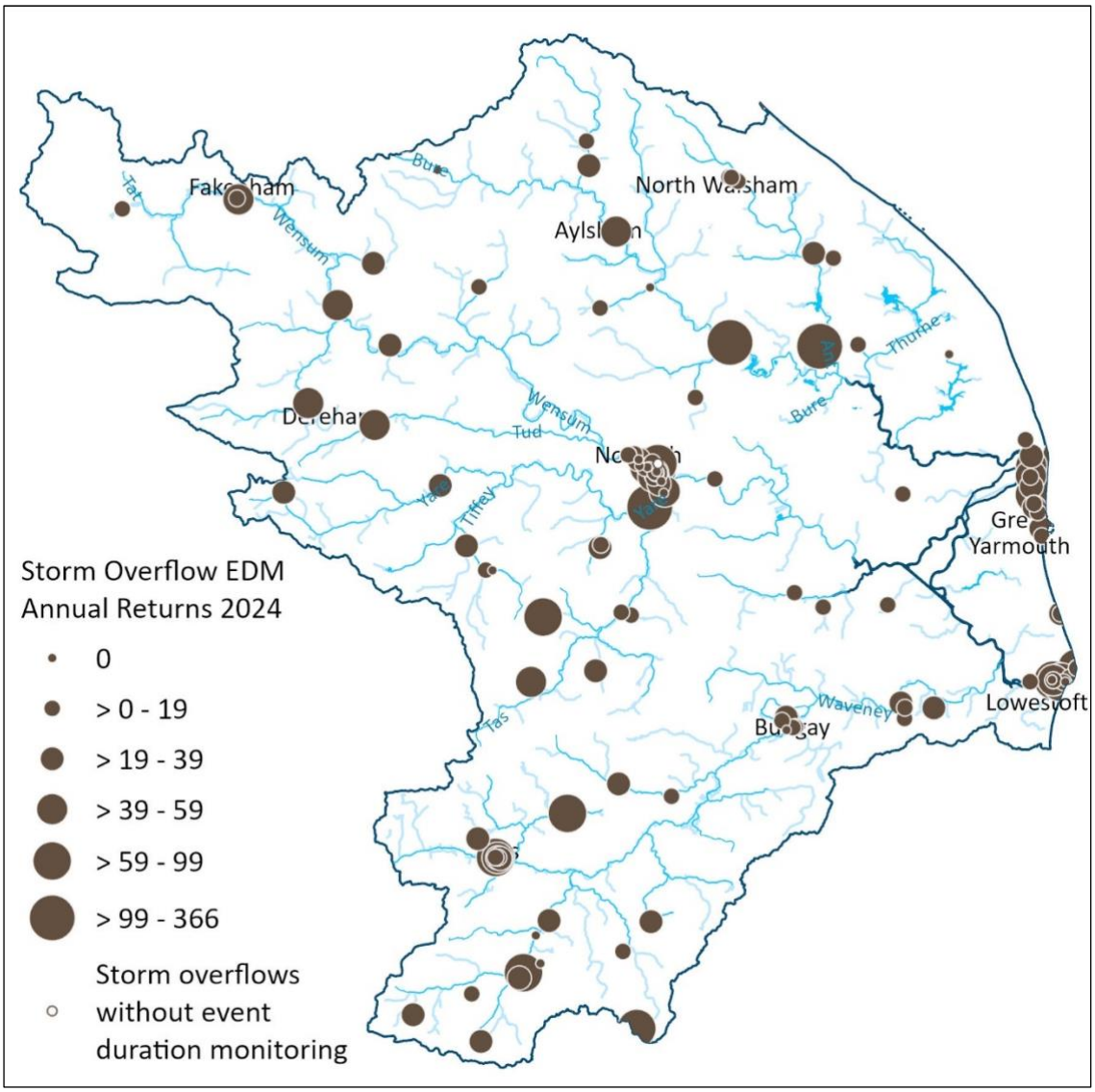

Figure 10 Event duration monitoring of storm overflows in 2024. Produced by The Rivers Trust. © Environment Agency copyright and/or database right 2024. All rights reserved.

3. Water Resource Management

Goal: Increase water capture and water use efficiency

Climate change and climate resilience

Water resource management is a priority issue within the Broadland Catchment as demand for water increases and supply is stretched. An increasing population will need more water and agriculture will need more water to supply crops. There is also an increasing demand from the environment sector for water to protect and restore important habitats and protected sites. As climate change makes rainfall more unpredictable, we are already seeing more extremes of weather with summer drought and winter flooding becoming increasingly common. This means that we need a joined-up approach to water resources management between all sectors to ensure a sustainable and resilient future.

Water abstraction and drought

The Environment Agency manages water resources through the Catchment Abstraction Management Strategy process to balance the water demands of society, the economy and the environment. Abstraction licences limit the daily, seasonal and/or annual volumes of water that can be abstracted. It is also used to identify water bodies that are failing or are at risk of failing to meet Good Ecological Status by 2027 due to water resource pressure. The process has identified that if all licences were used in full, at times of low flow, this could cause harm to the water environment.

Through the Restoring Sustainable Abstraction programme the Environment Agency has been engaging with abstractors from all sectors to help make their abstractions more sustainable by reducing the amount of water taken from the environment.

The Environment Agency Drought Plan for the Anglian River Basin includes measures to ensure protection of the environment.

Regional Water resources plan

The Regional Water Resources Plan is a long term water resources plan for Eastern England, developed by Water Resources East. It was published in December 2023 and aims to take an inclusive, multi-sector approach to water resource planning through to the 2050s.

Public Water Supply water resource management

The Anglian Water Water Resource Management Plan (2025 – 2030) and Essex & Suffolk Water Water Resource Management Plan (2025 – 2030) include actions to ensure public water supply and protection of the environment. These include demand side actions which aim to reduce water usage through compulsory smart metering and education. There is a challenge around helping the public to understand the value of water. Anglian Water is exploring implementing compulsory metering by 2030 and expects this to result in 94.8% of customers being metered. Nearly 70% of Essex & Suffolk Water customers are already metered, and they have a plan to meter all customers in the Suffolk supply area by 2030. The government has a target for household per capita consumption to reach 110 litres per person per day by 2050 – the current average consumption is 137 litres per person per day (source: Water UK).

Both water companies also have supply side solutions that will increase water supply. For Anglian Water this includes two new reservoirs in other parts of the region, plus a desalination plant at Bacton, and for Essex & Suffolk Water a water reuse centre and potential for a new reservoir to sustain water supply until 2050.

The Anglian Water draft Drought Plan (2022) and Essex & Suffolk Water Drought Plan (2022) include actions to be taken during periods of water shortage and scarcity. There is a need for more joined up thinking around drought and flood management, as they are currently viewed as separate issues with separate solutions.

Both companies have water efficiency teams who run using water wisely campaigns and provide advice and free products to help people use water more efficiently in the home and garden. These campaigns should be supported by the partnership to help increase uptake.

Agricultural and Business water resource management

The Broadland Agricultural Water Abstractors Group (BAWAG) is an association of around 180 agricultural and horticultural abstractors. It acts as a forum for discussion on sustainable agricultural water management and encourages its members to be more involved in water policy and strive for wise and sustainable use of water resources. BAWAG are working towards a collaborative, long term approach to water management planning for the agricultural sector.

The NFU Integrated Water Management strategy highlights the importance of a joined-up approach to flood and drought risk management. This includes improving soil health, building reservoirs and installing rainwater harvesting facilities. It also highlights the need for cooperation and collaboration within the farming community and with other sectors such as water companies.

Abstraction licensing is being overhauled in parts of the catchment, and many farmers are finding their licenses being removed or restricted. For locations relatively close to rivers, abstraction licences may be available to allow pumping into the reservoir when water is available at times of high flow. This reduces pressure on water resources at times of low flow or low aquifer level and guarantees supply for farm and horticultural business that may previously have had licence constraints at these times. Defra's Water Management grant provides funding for reservoirs and other water management options for farmers.

Environmental water needs

The need of the environment is a key part in water resource management planning. Different habitat types have different water needs, which can make it hard to include in planning. Many habitats are protected, which means that other water users are required to include this in their planning.

Water company Water Industry Natural Environment Plans (WINEPs) provide a way to engage and influence water companies with regards to the work they do in the environment. In the latest round of WINEP, Anglian Water produced an 'Advanced WINEP' which is working more collaboratively with partners around the catchment to achieve environmental

outcomes. This includes funding Catchment Plans for 11 catchments in the region, and a Partnership Centre of Excellence to facilitate partnership working.

Water Level Management

Water Level Management Plans (WLMPs) are strategic documents used by Internal Drainage Boards (IDBs) to manage water levels in areas containing environmentally sensitive and protected sites, such as Sites of Special Scientific Interest (SSSIs) or Natura 2000 sites. These plans balance the needs of flood risk management, agriculture, and habitat conservation, ensuring that water levels are maintained to support ecological objectives, while also serving the interests of local communities and land users by providing a structured approach to water level management that aligns with conservation objectives.

WLMPs involve close collaboration with stakeholders, including Natural England and the Environment Agency, to meet legal obligations and enhance biodiversity within protected landscapes.

Water Level Management Plans (WLMPs) were originally introduced in the 1990s as part of efforts to improve the management of water levels in environmentally sensitive and protected areas. They were developed in response to obligations under the Wildlife and Countryside Act 1981 and later reinforced by the requirements of the Habitats Directive (1992) and the Water Framework Directive (2000). These legislative frameworks emphasised the need to balance water management with the conservation of habitats and species, particularly in designated sites such as Sites of Special Scientific Interest (SSSIs) and European protected sites (e.g., Special Areas of Conservation and Special Protection Areas of which there are many in Broadland). Water Level Management Plans in the Broads are currently out of date, meaning that they are not informative and are likely to cause issues for future projects, including work on peat. Updating these plans is therefore crucial to continue key work in the Broads.

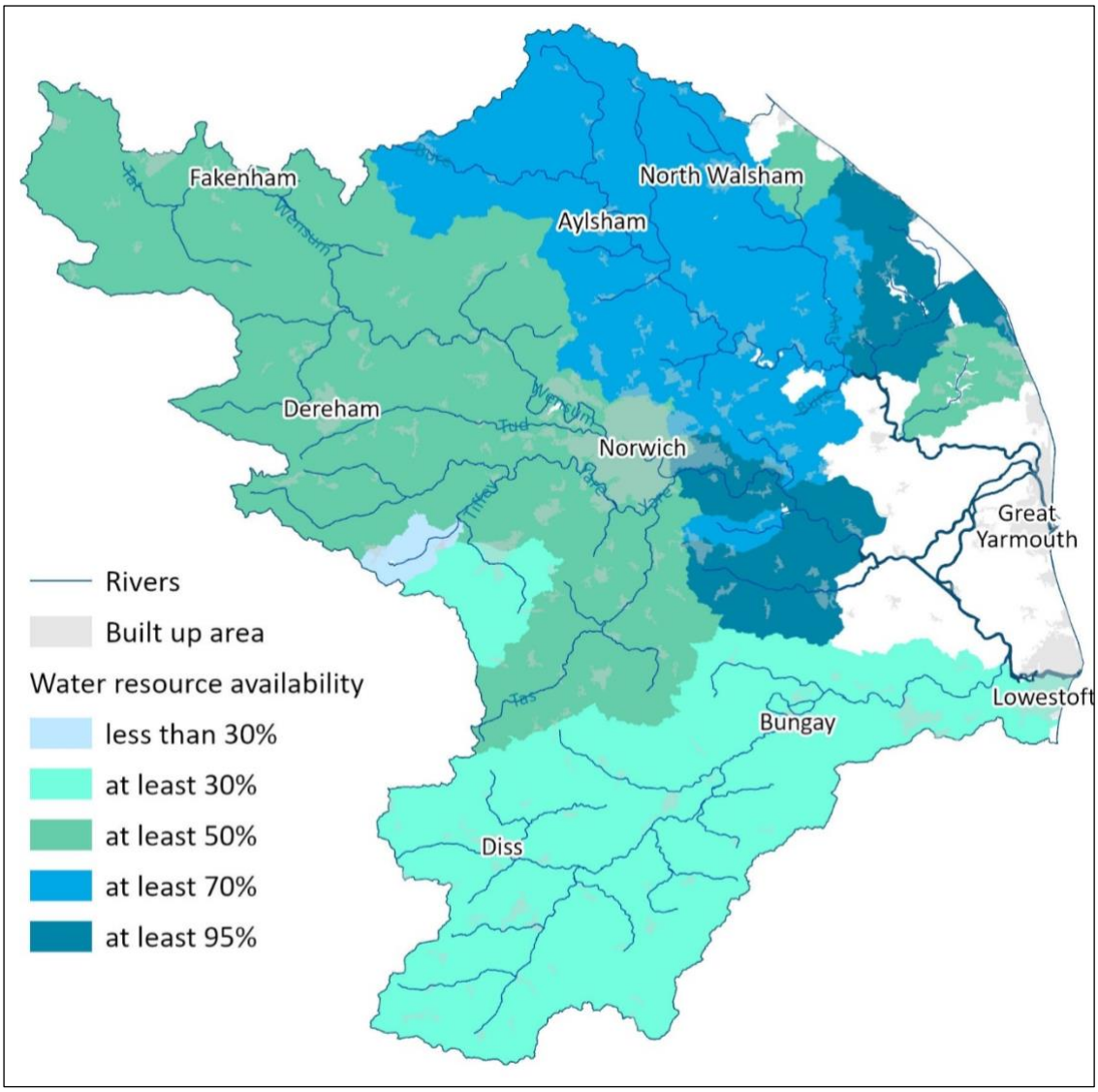

Figure 11 Water availability. © Environment Agency copyright and/or database right 2015. All rights reserved

4. Flood risk management and sustainable drainage

Goal: Slow surface run-off and increase groundwater recharge

Flood defence engineering and land drainage works continue to protect properties, infrastructure, farmland and wildlife habitat. The Broadland Flood Alleviation Project has reduced flood risk in the tidal catchment with recreational and wildlife benefits where practical.

Surface water

Norfolk County Council and Suffolk County Council, as Lead Local Flood Authorities, are responsible for co-ordinating the management of Norfolk and Suffolk respectively. This involves investigating the causes of flooding from groundwater, surface run-off and ordinary watercourses and drawing up Surface Water Management Plans (SWMPs) to reduce the flood risk and conserve water. Highways and urban areas act as sources and pathways for run-off and sediment. Retrofitting of Sustainable Drainage Systems (SuDS) features strongly. Schedule 3 of the Flood and Water Management Act (2010) requires all new developments to include SuDS once it has been implemented.

Rivers and sea

Managing flood risk from main rivers and the sea is the responsibility of the Environment Agency. The Broadland Futures Initiative has been set up to agree a framework for future flood risk management that copes better with climate change and rising sea levels. The Environment Agency have the lead responsibility and work with Natural England, County Councils, Internal Drainage Boards, Broads Authority and National Farmers Union, alongside local stakeholders and communities.

Reconnecting rivers with their floodplain, and other natural flood management measures, where possible (see 5. River channel and floodplain management) can reduce flood risk for downstream settlements. This makes it critically important not to locate any future development in river floodplains.

Salinity incursions are also an increasing threat to the lower reaches of the catchment in the Broads area. they can currently result in large scale fish kills and with climate change and sea level rise these are expected to increase, with threats to many of the important wetland habitats and wildlife in the Broads.

Sustainable drainage

Poor soil structure, compaction and drainage of agricultural land along with urban development have increased runoff and reduced infiltration of water in the catchment. Activities to improve soil structure and reduce compaction are under way, not least because this improves crop yields but also to reduce runoff. Some runoff from agricultural land during extreme rainfall events is inevitable and these events are increasing in frequency and magnitude. In areas where this is a known problem, or particularly high potential risk areas, Runoff Attenuation Features (RAFs) and Sustainable Drainage Systems (SuDS) are useful mitigation measures.

Funding for some SuDS measures is available through the ELMS Countryside Stewardship scheme, including funding for swales, sediment ponds and traps and silt filtration dams. To encourage water to drain into the ground (aquifer recharge) the drainage systems are best sited along run-off pathways where chalk or gravels are close to the surface, such as the upper Bure, Ant and areas of the Wensum catchment. Sluiced drains with debris dams and/or tree planting could also be effective at slowing the flow to rivers in other areas of the catchment, such as the Waveney and Yare tributaries, where heavier soils and a clay geology mean there is less infiltration.

Planting trees and hedges in similar wet, marginal, locations can potentially produce similar results, although it takes several decades to become fully functional due to root growth and leaf litter build up. The Woodland Trust promotes the benefits of trees for livestock, soil and water protection.

Natural Flood Management

Natural flood management through nature-based solutions can be used to reduce flood risk, slow the flow of water and increase groundwater infiltration. Leaky dams, temporary storage structures and reconnection of the river to the floodplain are all examples of natural flood management which can benefit flooding in a catchment. There is potential for these options to be funded through Countryside Stewardship, and increasingly through routes including private finance, and through the East Anglia NFM Local Levy Approach which is providing grants for NFM delivery.

5. River channel and floodplain management

Goal: Increase connectivity of river habitats

Strategic river habitat improvement schemes can improve fish and wildlife habitat, reduce downstream flood risk, increase aquifer recharge, lead to improvements in water quality and help move towards more sustainable river management. Re-meandering and reconnection with the floodplain (where there is no flood risk to property) are particularly effective measures. Norfolk Rivers Trust have carried out river restoration projects across Norfolk with WWF funding, resulting in successful habitat creation and floodplain reconnection. Learnings from their work should be integrated into the Broadland Catchment at a catchment scale.

Fish barriers

Over 150 fish barriers have been assessed by the Environment Agency and removal or bypass of some has already occurred. The removal of Homersfield Sluice on the River Waveney by the Environment Agency is an example of good practice. The redundant operational structure acted as a barrier to fish migration. The construction of a sequence of gravel riffles maintains the upstream water level, with no impact on flood risk. It provides habitat for invertebrates and spawning fish and incorporates provision for canoe access. By removing this redundant operational structure on the main river the costs associated with maintaining and insuring this liability were eliminated and, as such, it was funded as capital works under the Environment Agency flood risk management budget.

Eels have suffered a huge decline in numbers since the 1990s and under the Eel Regulations any water intakes have to be screened and structures made passable, although there are still many impassable structures. An Eel Management Plan for the Anglian River Basin District details measures to improve European eel populations.

Targeting and payments

Some river habitat improvement projects can be funded through ELMs, including the option ‘Making space for water’. There are also plans to pay through CS for enhancing floodplain floodwater storage and managing enhanced river and floodplain connectivity.

Funding may also be available through the Environment Agency flood risk management budgets. There may also be options for private finance to fund nature-based solutions for flood management.

This funding should be targeted to areas of improved grassland in non-tidal river floodplains where landowners are in agreement and adequately rewarded, and proposals are aligned with scheme priorities.

River maintenance

Maintenance and clearance of natural in-channel and bankside vegetation for land drainage and flood risk management by landowners, drainage boards and the Environment Agency has not always taken account of the needs of wildlife and habitat features. In general, more sympathetic management is now being carried out without compromising flood risk or drainage, to comply with Water Framework Directive ecological standards relating to dykes, ditches and rivers. Natural England and the Association of Drainage Authorities have

published The Drainage Channel Biodiversity Manual (NE121) for integrating wildlife, land drainage and flood risk management.

Reducing maintenance of riverbanks and selective felling of trees, or at least not removing them from the channel in areas of the upper catchment where no flood risk to property occurs, can cause rivers to temporarily enter floodplains and 'slow the flow' during high flow events. The River Waveney Trust has worked with the Environment Agency to implement this on some upper stretches of the River Waveney. The majority of suitable locations for similar projects are on private land. Improved stock grazing, angling and thus potential income generation may generate further landowner support.

6. Recreation and understanding

Goal: Increase sustainable use of, and learning about, water and wetlands

Citizen science

There are several citizen science projects underway in the catchment which are engaging the local community and providing evidence for further work in the catchment around pollution reduction.

The Wensum CastCO project has over 20 volunteers taking weekly water quality samples on the Wensum and tributaries. The project is led by the Rivers Trust with funding from Ofwat and the Environment Agency and Anglian Water are key partners. The project has led to on the ground interventions on water quality and data has been validated using the EA and UEA labs.

The River Waveney Trust also have a citizen science monitoring project, focusing on Bungay and an application for bathing water status at Falcon Meadow. This has included bacterial water quality testing and community engagement through events on the Meadow.

There are other opportunities to integrate with work already being done with citizen scientists. The Riverfly Partnership is a long running monitoring programme monitoring the biological health of our local rivers. Other schemes like Outfall Safari look at detecting missed connections in the sewage network and could be used to upskill volunteers to look for other issues while they are monitoring.

Academic and applied research

The catchment contains institutes of international recognition including the University of East Anglia, which has worked for many years on local rivers and the Broads. The Norwich Research Park is one of Europe's biggest concentrations of researchers in the fields of environment, health and plant science. It includes the John Innes Centre and Institute of Food Research. Easton College is one of the UK's leading land-based colleges covering agricultural and animal studies. There are opportunities for the partnership to work closely with these institutes and support local applied research.

Recreational access

Public access to the catchment could be better integrated, with more provision for recreation, including canoe access, in river habitat improvement and land management schemes. River crossings and ferries are limited and many footpaths, cycle paths and bridleways are not particularly joined up without the use of highways. However, some landowners do not want to provide additional access across their land and some high conservation priority sites are unlikely to be suitable for access, at least at certain critical times of the year, so as not to disturb rare wildlife and breeding birds.

County councils are responsible for the maintenance of rights of way signs and employ trails officers for management of promoted trails. Programmed maintenance is carried out on these trails and other footpaths if there is a confirmed health and safety risk.

Local Access Forums for Norfolk, Suffolk and the Broads are consulted by county and district authorities on recreational access and rights of way. The Broads and Norfolk River Valleys was historically a recognised target area for access provision under Environmental Stewardship.

The Broads Authority provides promotional material, signs, information boards, parking and facilities for disabled people in its Executive Area. Its Integrated Access Strategy is improving recreational access including provision of moorings in areas of high demand. It is working with landowners to establish permissive paths to link existing routes, and with canoeists to improve access arrangements and produce trails and information guides for users.

The Environment Agency and local angling organisations seek to improve angling access including facilities for anglers with disabilities. The Environment Agency installs temporary barriers to protect fish populations in boatyards at times of tidal surge and saline incursion.

Some of our partners are working very successfully in this area. The River Waveney Trust canoe access project is using volunteers and small contractors to maintain the waterway on the upper reaches of the Waveney for canoes and paddle boarders. The Norfolk Wildlife Trust Sweet Briar Marshes is engaging with communities in Norwich and bringing nature into the city.

Equality, diversity and inclusion

Engagement work in the catchment should focus on reaching different groups, including young people, minorities, and those living in urban areas. In particular, aiming to recruit more volunteers from more diverse backgrounds with greater ownership, engagement and understanding.

There are some groups working in the catchment who are already working very successfully in this space, including Norfolk Wildlife Trust and the Restoration Trust. Working to support and integrate our work with these groups would enable us to expand the reach of the catchment and support great work already being carried out.

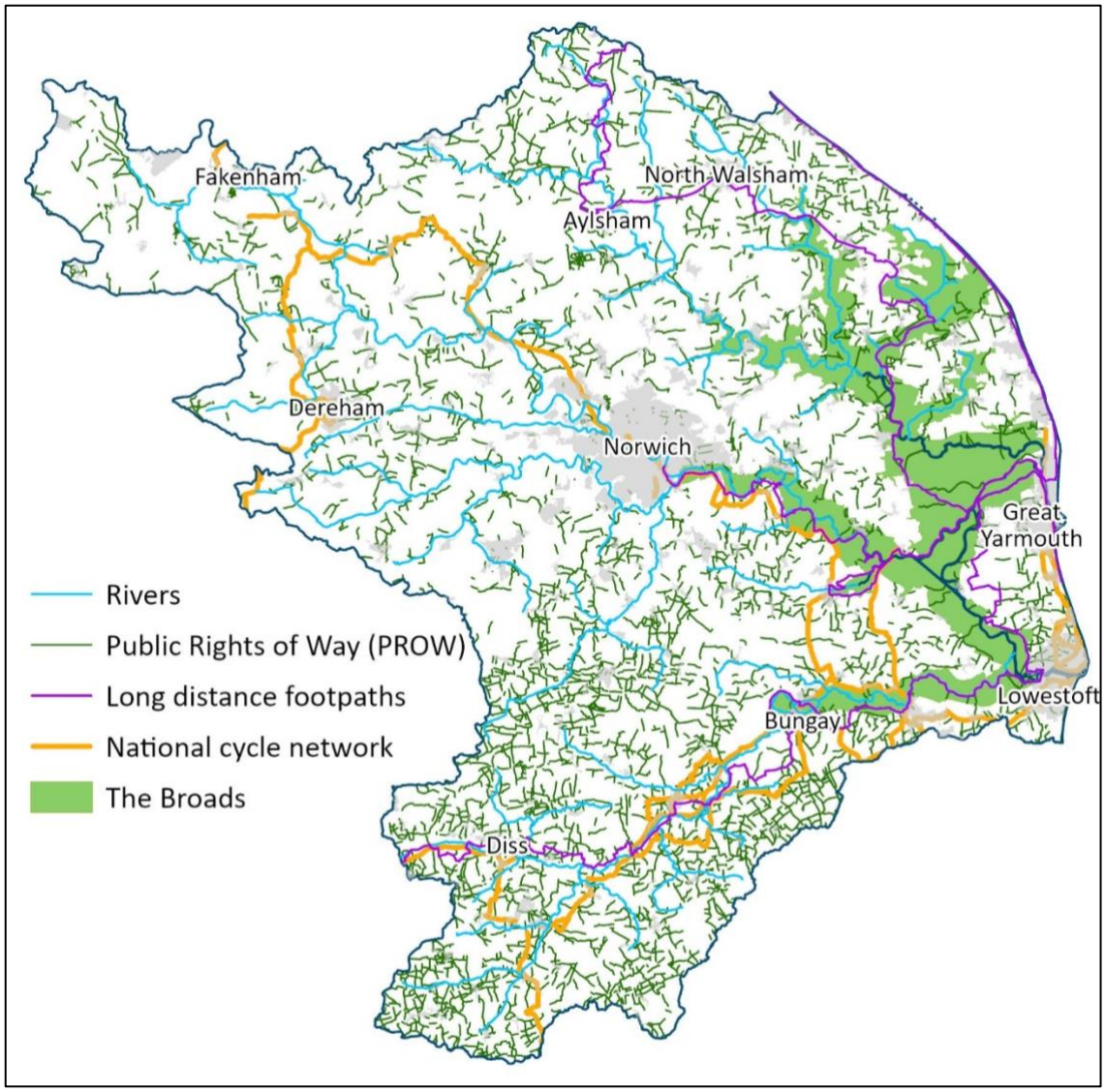

Figure 12 Recreational access. Contains public sector information licensed under the Open Government Licence v2.0. © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2025. © Norfolk County Council. © Suffolk County Council. The legal register of public rights of way is the Definitive Map and Statement, which is held by Norfolk County Council and Suffolk County Council respectively.

7. Investment

Goal: Increase, combine and attract new funding for projects and provide a financial model for the partnership

Local nature recovery strategies

These are strategies across the country which will agree priorities for nature recovery and map actions in priority areas. In Norfolk, Norfolk County Council is the responsible authority and is working with partners to develop the strategy. The first strategies must be published by March 2025 and will be updated every 3-10 years. The actions in these strategies are important as they will be used to incentivise biodiversity net gain, be integrated into the planning system, and help to target funding to priority actions.

Private finance and investment

Private finance is a burgeoning area which offers opportunities for investment in nature.

Biodiversity Net Gain is now mandatory, with all new development requiring at least a 10% uplift in biodiversity. Whilst there is an incentive towards on-site mitigation, this is not always possible and so there is a market for habitat restoration funded through off-site mitigation using BNG credits.

Nutrient Neutrality is also now in place in parts of the Broads and on the Wensum. These measures are meant to protect European designated sites and prevent and more nitrates and phosphates from polluting them. This means that all new development in nutrient neutrality areas must mitigate for the nutrients being added into the system by funding work in the same catchment to remove the same amount of nutrients. This can fund projects such as treatment wetlands, field buffers, and septic tank upgrades.

There are other sources of private finance such as carbon credits, which are still an emerging market.

The Norfolk Water Fund is a platform being developed by the Norfolk Water Strategy Programme which will provide a framework for governance and investment in water projects across Norfolk.

Summary and Future Developments

Problems arise due to the physical geography, land use, weather and climate of the catchment, and the complex way in which water services are provided and regulated; food is produced, subsidised, and traded; planning and development decisions are made; and the environment and society are protected and provided for.

Management of land and water has evolved in a piecemeal fashion over centuries and occurs in specific sectors with regional, county or district boundaries that do not reflect the natural boundaries of a catchment. In some circumstances the planning of improvements to the water environment has failed to make use of the knowledge of those who live and work in the catchment.

To solve the complex challenges presented in this plan, it is vital that we work together in partnership at a catchment scale. Integration of those working in different sectors is key to ensuring that we are all working together towards a common goal.

The Broadland Catchment Partnership will work towards the goals of this Catchment Plan, using our Action Plan which is held in a separate document and will be reviewed annually to ensure progress.

To sustain long-term solutions, some institutional change may be required. Linking elements of the Environmental Land Management Scheme and private finance into a landscape-scale approach will be necessary to achieve the ambitious goals of this plan.

By working together, we can take the necessary steps to improve the environment and provide benefits to society and the local economy.

Actions of our partners and other stakeholders

Responsibilities of organisations with statutory duties working in the catchment in relation to the environment

Anglian Water - Provision of water supply to much of the catchment and sewerage services throughout the catchment to legal standards.

Broads Authority - Conservation, navigation, recreation, and planning and development in the Broads Executive Area.

Broadland, Great Yarmouth, Mid Suffolk, North Norfolk, South Norfolk, West Norfolk and Waveney - The district councils covering planning and local services, together with Norwich City and town and parish councils.

Environment Agency - Protection and enhancement of the water environment to European legal standards including river works, pollution prevention and water resource regulation, and managing flood risk from rivers and the sea.

Essex & Suffolk Water - Provision of water supply to legal standards in parts of the south and east of the catchment.

Internal Drainage Boards - Management of water levels to reduce flood risk to agricultural land, properties and infrastructure in special areas including the Broads and Norfolk Rivers (both part of the Water Management Alliance); and Waveney, Lower Yare & Lothingland.

Natural England - Protection of the Environment (Habitats Directive) including planning and development advice, managing Environmental Stewardship agreements, and notifying, assessing and protecting designated areas.

Norfolk County Council - Management of Norfolk surface water flood risk, biodiversity, county farms, coast and trails.

Suffolk County Council - Management of Suffolk surface water flood risk, biodiversity, county farms, coast and trails.

Actions of charities and member organisations working in the catchment in relation to the environment

Broadland Agricultural Water Abstractors Group - Promotion of sustainable use of water resources, advice on water policy and water management.

National Farmers' Union - Championing farming and provision of professional representation and services to members.

National Trust - Management of estates around Blickling and Horsey, river restoration and environmental education.

Norfolk FWAG - Provision of independent environmental and conservation advice to farmers and landowners in Norfolk.

Norfolk Rivers Trust - Conservation and restoration of Norfolk's rivers and wetland habitats.

Norfolk Wildlife Trust - Protection and enhancement of Norfolk's wildlife and wild places including reserves, and public education.

River Waveney Trust - Conservation and restoration of the Waveney Catchment's rivers and habitats, with a focus on community engagement.

RSPB - Conservation of wild birds and their habitats, managing reserves, education, advice and lobbying.

Suffolk Wildlife Trust - Protection and enhancement of Suffolk's wildlife and wild places including reserves, and public education.

The Rivers Trust - Promotion of sustainable, holistic and integrated catchment management through engagement.

University of East Anglia - deliver applied, interdisciplinary teaching and research in environmental Science.

Woodland Trust - Protecting, creating and restoring native woodland in the UK with the help of communities.

Water Resources East - is a not-for-profit membership organisation pioneering a collaborative, cross-sector approach to water resources and integrated water management planning in Eastern England.

Other Stakeholders

Farm businesses - Contact your local Catchment Sensitive Farming officer for advice on how to protect soil and water resources, improve wildlife and save money.

Community - Get in touch with your local rivers trust: Norfolk Rivers Trust or River Waveney Trust. Contact your local wildlife trust: Norfolk Wildlife Trust or Suffolk Wildlife Trust.

Have you made the connection?

If you feel you can contribute to the partnership in any way or would like further information please contact: admin@broadlandcatchmentpartnership.org.uk

www.broadlandcatchmentpartnership.org.uk (where you can find an online pdf version of the plan with links to supporting documents, plans and organisations)