

BROAD SHEET



Ponies grazing at Buttles Marsh

Working together for a better 2022

As it was for everyone else, 2021 was a particularly difficult year for the Broads and the Broads Authority. Although we still face many challenges this year, I am hopeful in the long journey to recovery from the Covid-19 pandemic that boaters, residents, visitors and businesses can work together to make the Broads even better than before.

I am very proud of our staff and volunteers who have all worked tirelessly in these testing and stressful times to achieve many incredible successes that we share with you in this issue of Broad Sheet.

Among the many highlights, we have continued to improve and create new facilities for boaters and visitors such as the new pontoon at Peto's Marsh, with its expanded nature reserve and new visitor centre owned by the Suffolk Wildlife Trust, a new 24-hour mooring at Berney and a new pontoon at the Geldeston 24-hour mooring. The re-opened visitor centre at Ranworth had a makeover and was extremely busy last season.

We continue to support the training of young people and run projects to introduce them to the wonders and

special qualities of the Broads. The excellent work of our Water, Mills and Marshes Heritage Skills Apprentices has been acknowledged by 3 Constructing Excellence Awards.

Generation Green, a youth project delivered by our education team, engages young people who don't normally get the chance to get out in the Broads. By creating exciting learning opportunities outdoors, we've seen the delight young people experience when they see wildlife up close for the first time.

In the autumn, dredging wherries finally left Hickling Broad as the three-year CANAPE wetland creation project was completed.

With partners, we successfully bid for a substantial grant to explore the Broads'

peat resources and restoration – an award of just under £800,000. This funding recognises that the Broads is an internationally significant store of carbon.

The Government's recent response to the Landscape Review of National Parks included among its proposals the suggestion that Rangers should be given greater powers. We are not sure how applicable this is to the Broads and will be consulting the Navigation Committee and our staff before the Authority responds to the formal consultation.

I look forward to seeing you out in the Broads, in what we anticipate will be an extremely busy season.

John Packman
Chief Executive - Broads Authority



Navigation charges set for 2022

This year, Broads' tolls will increase by 3.6%, to cover increasing costs of maintenance and improvements to the waterways.

The Authority's income last year was above that predicted because the number of hire boats did not decline as much as had been expected, and there was an increase in the number of private craft (particularly paddle boards and canoes).

However, inflation is having a severe impact on our outgoings, with the price of raw materials such as steel, wood and aggregate rising fast. In addition, the Employers' National Insurance contribution is rising to fund health and social care costs.

Forecasted income for the end of the 2021/22 financial year is a surplus of £189,000. This provides the Authority with an opportunity to plan for the future and the long-term requirements for maintaining the waterways. The surplus will contribute to the development of a new online tolls system, as well as reducing the impact that the rising cost of materials will have on next year's finances.

The IT computer software for toll payments needs replacing. Customer feedback has shown that people want to be able to submit applications for new craft and to buy short-visit tolls online. A new system will be developed over the next few years

to cater for this. The first step is to develop a clear specification for a system that works better for our customers.

The Navigation and Broads Authority Committee members unanimously agreed to recommend an increase in tolls of 3.6% in 2022.

Boat owners already registered with us can set up an online account and pay their toll online, or alternatively pay by calling 01603 756080, or by post. Personal visits to Yare House to pay a toll are currently unavailable in order to protect our small and vitally important Tolls Team from COVID-19.

The 3.6% increase in tolls will result in a typical unpowered dinghy paying an extra £1.31 and a small motor boat an extra £2.60 a year. A popular-sized sailing boat (11m sq) will pay an additional £3.52 and a large private motor boat (38m sq) an extra £19.76.

Please visit our website for more information on next year's navigation charges and to register to pay your toll online:

www.broads-authority.gov.uk/boating/owning-a-boat/tolls

What's on the web

There's lots of useful information and services available on our websites. For information on tolls, bridge heights, boating news and other Broads Authority news: www.broads-authority.gov.uk

For event information, and to inspire your visit to the National Park: www.VisitTheBroads.co.uk

Find Broads' slipways and launching points for paddlecraft and sailboats: www.broads-authority.gov.uk/boating/facilities/slipways-and-launching-points

Our YouTube channel features many helpful videos on water safety and navigation, for both new and experienced boaters - just search 'Broads Authority' on YouTube.

Sign up to receive our monthly e-newsletter, Broads Briefing: broads-authority.gov.uk/newsletter

You can also follow us on Twitter, Facebook and Instagram.

Useful Apps and websites

www.gopaddling.info/

The Go Paddling site offers plenty of information on routes, paddlepoints and courses for paddlers.

www.shop.ordnancesurvey.co.uk/apps/os-locate/

The OS Locate app is an accurate means of pinpointing your exact location on the map, anywhere in Great Britain. It can be downloaded from App Store or Google Play.

The Environment Agency website lists current water levels and tidal patterns.

This is the same data that aweigh.com uses and you can search by river name.

www.check-for-flooding.service.gov.uk/river-and-sea-levels



Putting safety first in the Broads

For the Authority and its partners, an increase in visitors to the Broads after COVID-19 lockdowns led to a renewed focus on how to improve safety in the area.

The safety of our staff, volunteers, visitors and all those using the Broads is a high priority. We have been working with the Broads Hire Boat Federation and hire companies to improve the handover process for hirers and to introduce a range of safety measures on the Broads.

Last season saw four new Seasonal Ranger posts created to increase patrolling on the Broads during the busiest times. A new post of Senior Ranger for Compliance and Safety was also created (see page 7) to free up other Rangers from the paperwork associated with investigating byelaw offences, allowing them to spend more time out on patrol.

The Ranger Team undertook extra training on safety and enforcement and started work earlier in the season in preparation for increased daily and evening patrols. A greater Ranger presence out on the water meant they could reach more members of the public with safety advice. Fortunately,

the number of verbal and written warnings given for breaches of Broads byelaws remained similar to previous years. Rangers tell us that the extra patrols may have acted as a deterrent to antisocial and unsafe behaviour.

Over 440 hire boat users completed face to face surveys, sharing their views on the handover process when hiring and on their level of competence in helming a vessel. The survey results are currently being analysed. Hire boat licencing is under review by the Broads' safety team and will be improved should the survey results show that changes to the handover process are necessary.

The Authority and partners have produced nine new animated boating safety videos for hirers, which have proved popular with new and experienced boaters. These are available on our YouTube channel and have had nearly fifty thousand views. The videos are now being updated, based on river users' and partners'

feedback.

The increased number of Rangers will remain in place this season and will focus on improving paddle sport safety, and on signage at popular areas such as Horstead Mill and Coltishall.

A Hire Boat Licensing Officer had previously been employed for one day per week to carry out hire-boat licensing inspections, audits, to visit and advise new businesses, and to deal with hire boat licensing, canoe and paddleboard operator inspections, enquiries and complaints. Due to increased demands on this post, it will increase from one to three days in 2022, funded from the Hire Boat Licence fee.

As always, if you require assistance on the water or have any safety concerns, please get in contact with Broads Control on 01603 756056 / Broads.Control@broads-authority.gov.uk or call 999 in case of a water-related emergency.



New and improved moorings

It's been another busy year for the Maintenance Team. They have constructed new moorings and refurbished existing mooring sites, working either in-house or with external contractors.

River Ant: Stage two of a major three-part refurbishment at the How Hill 24-hour mooring is complete, with new quay heading installed in the middle 100m section.

At the Sutton 24-hour moorings the team, helped by volunteers, replaced 90m of mooring timber capping and back rail on the Sutton 1 mooring site, nearest to the road. They also replaced 30 mooring posts and raised the level of the site. On the Sutton 2 mooring (closest to the broad) we replaced 50m of capping, including some quay heading back rail and six mooring posts. New signs were also installed.

Around 50m of capping and waling, including eight damaged mooring posts were replaced at the Horning Marsh 24-hour mooring. Gauge boards have also been repaired at both Horning Marsh and Ludham Bridge.

River Yare: With the help of volunteers, the team completely refurbished 60m of the timber on the western side of the Rockland 24-hour moorings. The capping, back rail, walings and mooring posts were replaced and the mooring path was topped up. New signs were installed, along with a new electric pillar on the western part of the mooring.

A new 24-hour mooring at Berney has been brought up to BA specification, including the installation of safety chains, ladders and signage. The path was also topped up.

At the Commissioners Cut 24-hour moorings, preliminary excavation work was carried out in advance of major repairs to piling, which will take place during 2022.

At the Hardley Cross 24-hour moorings, a safety ladder was replaced.

River Thurne: At the Boundary Farm 24-hour moorings, broken walings were repaired and mooring posts replaced. More repair work also started there earlier in 2021.

At Potter Heigham, bridge gauge boards were replaced.

River Bure: At the St Benet's Abbey 24-hour mooring, a major refurbishment of 300m took place last summer, including a full replacement of the timbers, replacement mooring posts and a new raised path.

River Waveney: At the Burgh Castle moorings, new signage and three electric pillars were installed.

A new mooring pontoon was installed at Peto's Marsh for boaters to gain access to the Carlton Marshes Nature Reserve direct from Oulton Dyke.

A new mooring pontoon was installed at the Geldeston 24-hour mooring.

Be paddle aware

The popularity of paddleboards has soared over the last two years. You may not be aware that all paddlecraft need to be tolled. To be safe in the water, paddleboarders should also wear a tether or float. See the tolls page on our website, and safety videos on our YouTube channel for more information.



New equipment helps with maintenance programme

The management of the Broads' waterways requires significant heavy plant machinery, diggers and excavators, as well as the means to manoeuvre equipment into remote and inaccessible locations. While this presents many challenges, some recent purchases are helping to streamline this work.

Last year, the Authority purchased a large trolley to move workboats around the dockyard, saving on fuel for multiple crane lifts. Five new floating pontoons (NATO floats) were purchased to create a mobile pontoon large enough to carry out a wide range of navigational maintenance work.

The floats are easy to manoeuvre and are used to transport equipment for tree work. They have dramatically improved the efficiency of our bankside tree and scrub management programme.

We replace our excavators every ten years because after that time, the cost of maintenance starts to increase.

Having reliable machinery when working in such remote locations is essential. Our new JCB 180 excavator replaces the identical one purchased in 2010.

Other recent purchases to help look after the Broads include a mini-excavator; a new engine for the large mud-wherry the Tony Hewitt, a replacement engine for the Spirit of Breydon and an electric Vivaro van, which means that two-thirds of our team vehicles are now electric.

Over half of our greenhouse gas emissions are produced by the Operations Team's work programme. Sourcing replacement machinery that delivers both cost savings and decarbonises the work of this busy team is one of our key priorities.

With this in mind, we have purchased more efficient and cleaner replacement engines for some patrol launches, work vessels and a new mini-digger. All Authority plant machinery and vessels now run on Hydrotreated Vegetable Oil (HVO) which gives a 90 percent reduction in carbon dioxide emissions.

Rare water voles safe in the Broads

This little visitor showed up on our work boat Snipe. We were unsure whether it was a water or field vole – it depends on the tail length, which is not visible here.

Meanwhile, work to create a new wetland habitat at Suffolk Wildlife Trust as part of mitigation management for a dredging project, saw Broads Authority Ecologists discover a healthy water vole population. They have spent the past two years slowly relocating them to new homes to ensure that these small creatures remain protected.



Dredging programme

Last year's dredging works began with the removal of approximately 7,000 m³ of sediment from the navigation channel in the Upper Waveney between Beccles Old Bridge and Geldeston Lock. The material is being stored at Geldeston Marshes and will be used by the Environment Agency for flood bank strengthening at Dunburgh.

During February and March 2021, the Authority plough dredged the lower reaches of the River Bure from Tar Works Road to the Bure Mouth, Great Yarmouth. This method of dredging uses the riverbed slopes and water currents to remove and even out irregular shoals that build up on the edges of the navigation channel.

The second phase of the wetland creation project at Peto's Marsh, Suffolk Wildlife Trust's Carlton Marshes, started last spring. Around 10,000m³ of sediment was dredged from Oulton Broad and used to create a

new 1-hectare wetland at the northern tip of the reserve.

In November, the dredging team returned to Hickling Broad for the final stage of the CANAPE Project. This involved topping up sediment levels within Chara Bay island and landscape planting reed rhizomes to the perimeter.

At the same time in November, the Authority began to dredge the River Chet to remove approx. 5,000m³ of sediment which will be used to help strengthen and reprofile the Wherryman's Way footpath.

December saw the long-awaited dredging of the Upper Thurne. The navigation channel from Martham Ferry to West Somerton had accumulated significant amounts of sediment, resulting in a shallowing of the channel. Dredged sediment will be used on an area of eroded reedbed at Martham Broad.

2022/23 future dredging projects

Upper Bure: Dredging between Coltishall Common and Hoveton Viaduct will start in November to move approximately 10,000m³ of sediment onto the Trafford Estate for agricultural benefit.

Oulton Broad: Dredging will resume in spring to complete the third phase of the Peto's Marsh habitat creation scheme at Carlton Marshes.

River Ant: April sees the dredging team move to the upper reaches of the main river, removing approx. 12,000m³ of sediment from Sutton Broad and Stalham Staithe, then moving to clear the build up of sediment from Wayford Bridge to Barton Broad. The sediment will then be used to strengthen the river banks to the north of Hunsett Mill.

Mills, marshes, walks and awards

The Land and Windmills project team, part of the Water, Mills & Marshes: Broads Landscape Partnership Scheme, funded by the National Lottery Heritage Fund, continues to restore and repair several of the iconic drainage mills in the Broads National Park. The small team of heritage craftspeople have spent the last four years working with students and local millwrights at Six Mile House on the River Bure, High's Mill, North Mill on Halvergate Marshes, and Strumpshaw Steam Engine on the River Yare.

The team are currently restoring Mutton's Mill on Halvergate Marshes. The remaining pair of sails has been removed for repair and scaffolding is in place so that the brickwork and cap can be restored. Last autumn, the team received one of the largest pieces of timber used in the project; an 18.5m piece of oak that will be fashioned into new stocks to hold a new pair of sails onto the windpump. It's difficult to imagine that such a large piece of timber will soon be spinning around in the wind, just as it would a hundred years ago!

The Authority is delighted to see the hard work and dedication of this small team during the pandemic being recognised by their peers in the

construction industry. Last year, our two apprentices Brandon Jarvis, Tom Allen, and their Heritage Skills Training Supervisor Sean Grimes were awarded the Norfolk Constructing Excellence Award in the category of Preservation and Rejuvenation, as well as coming second overall in Norfolk. Last August, they also won the Regional award in the category of Conservation and Regeneration.

The Landscape Partnership Scheme also works to improve access to the Broads and is now creating several new year-round walking trails at Halvergate Marshes. A 7.5 mile circular route will soon pass many of the iconic Broads' mills at Halvergate along the River Yare. The walks will be accessible by

train from the Berney Arms request stop between Great Yarmouth and Reedham. The trails are being delivered in partnership with Norfolk County Council's Experience project, which aims to encourage more people to get out and explore the best that Norfolk can offer.



Before and after at Six Mile House



Marking out the wet farming site before reed is planted

Climate change in the Broads - looking to the future now

The Authority's work on climate change cuts across our entire work programme, from decarbonising our operations, through to farmer advice on locking carbon in soils and working with partners to manage the impacts of climate change in the Broads.

We recognise the urgency of action needed and are putting the people who live and work in the Broads at the heart of the decisions about its future management. By working in partnership, we can manage climate change in the Broads more effectively.

The Broadland Futures Initiative (BFI) is a partnership with local communities, politicians and other stakeholders to identify the way forward for future flood-risk management in the Broadland area. It seeks to plan now on how we can cope better with the changing climate and rising sea levels. Some outputs of the project so far include a review of flood management policies, online stakeholder surveys, a virtual exhibition and village hall events to engage local communities.

A partnership of farmers and land managers led by the Authority has been awarded almost £800,000 to design peatland restoration projects in the Broads to improve carbon storage and help adapt to climate change. The Authority is also working with farmers and land managers to explore how future farming could deliver benefits for both nature and climate, and attract private carbon finance. For example, a parcel in the Upper Thurne area is

being prepared as a 'wet farming' site to produce crops suitable for wetlands (known as paludiculture). These methods also lock carbon into the soil - a bonus for the climate.

The UK Government aims to phase out the production of new fossil-fuel powered vessels by 2050. The 'Electrifying The Broads' (ETB) partnership group is researching how the transition to cleaner fuels and propulsion could take place in the Broads.

The second phase of the project will look to demonstrate potential technologies (such as biofuels and hydrogen fuel cells) to Broads' river users.

The Authority recently ran a survey of Broads' boaters, who, for the majority, were supportive of greener cruising. Over 80% of boat users surveyed would like to use greener fuels, but felt that it would be inconvenient to do so, citing a lack of electric charging infrastructure or biofuel availability. Cost was also regarded as a major barrier to adopting greener boating.

Sign up to the BFI newsletter on our website.

New Senior Ranger role speeds up Broads' prosecutions

To allow more time for Rangers to be out on patrol, a new post of Senior Ranger for Compliance and Safety was created, as part of a package of measures to improve safety for visitors and river users (see page 3).

Jon Hopes took up this post last year, to coordinate investigations, process prosecutions and oversee compliance with the Broads Navigation Byelaws.

Jon examines incident reports (such as speeding, injuries and boat collisions) to see how they can best be resolved. Investigations are time-consuming; obtaining CCTV footage and taking witness statements takes Rangers away from patrolling.

Jon's hard work has helped to streamline how we manage visitors and river user behaviour on the Broads, and as a result, investigations can be processed faster. It has also freed up the Ranger team from the lengthy paperwork involved in preparing prosecutions of Broads Navigation Byelaw offences to go to Court.

On the whole, most incidents on the water are dealt with by Rangers, who issue safety advice. River users may also be issued with a written Memorandum of Navigation Warning. Prosecution is only ever used as a last resort in cases of persistent, deliberate or intentionally reckless behaviour, or incidents with serious consequences.

While the Authority deals with Navigation Byelaws, we work together with Broads Beat, our partnership with the Norfolk Constabulary, to prevent and deal with anti-social behaviour and criminality on the water.

Last year, of 86 reported incidents that required investigation, eight were prosecuted in Court for Navigation Byelaw offences such as failing to navigate with care and caution and for breaking the speed limit. Fines totalling £9,023 were applied, which included all court costs.

Floating pennywort alert

Be on the alert for floating pennywort on the River Ant between Dilham and Hunsett Mill and also in the dyke near Smallburgh. We are asking people in the area who spot pennywort to ensure that they do not disturb it. Where boaters spot any plants in the river area, please try to manoeuvre around them if possible, with your engine off. Boat propellers chop up the plant allowing small fragments to spread through the waterways. Avoiding motoring through patches of river plants alongside checking, cleaning and drying your vessel after use will help control the spread.

Any sightings should be emailed to the Norfolk Non-Native Species Initiative NNNSI@norfolk.gov.uk with the exact location of where it was seen.



How can we improve Broad Sheet?

We are always keen to hear from our toll payers about topics or areas of the Authority's work you would like to see included in Broad Sheet. Please get in touch by email at:

Broads@broads-authority.gov.uk



Managing water plants for navigation and biodiversity

The Authority's annual programme of water plant management helps to maintain a balance between the requirements of boaters for navigable channels and conserving aquatic habitats to support wildlife.

Two plant cutting vessels operate in the Broads each year between April and October, depending on where plants grow during the spring and summer months.

Last year, plant cutting took place at the following locations:

Bure – Horstead to Belaugh

Ant – Cutting did not take place on the Ant due to floating pennywort in the river system

Upper Thurne – Hickling Broad navigation channel, Waxham Cut, Meadow Dyke, West Somerton to Martham Ferry

Wensum and Yare – Norwich city centre to Thorpe

Waveney – Barsham Marshes to Beccles Marshes, Geldeston Marshes

Several rare and protected water plant species are found in the Broads, such as the algae-like 'stoneworts'.

Alongside its cutting programme, each year the Authority surveys water plant populations and their habitats.

The types of plants that grow each year depend on factors such as seasonal temperature changes and water cleanliness. High levels of water plant

diversity are a sign of a very healthy Broads and river system.

Plant growth along riverside edges creates corridors for wildlife to move around the Broads and rivers and helps to support the high levels of biodiversity. Water plants also provide places for insects to live, and for fish to feed, breed and to hide from predators.

Last summer, staff surveyed the water plant populations of 18 broads and four rivers, by pulling a large rake along riverbeds at specific locations and recording what plant species came back. They found that plant diversity in some Broads was similar to the previous years, and over half of the Broads showed an increase in plant diversity.

The rare water-plant Holly-leaved Naiad fluctuates but is relatively stable across the Broads overall, but in the Upper Thurne healthy populations of rare stoneworts were found. High levels of plant diversity were found in the River Bure, and Wroxham Broad had increasingly greater diversity and water clarity.

See our website for further information.