

Navigation Committee

Agenda 22 October 2020

2.00pm

This is a remote meeting held under the Broads Authority's [Standing Orders on Procedure Rules for Remote Meetings](#).

Participants: You will be sent a link to join the meeting. The room will open at 1.00pm and we request that you **log in by 1.30pm** to allow us to check connections and other technical details.

Members of the public: We will publish a live stream link two days before the meeting at [Navigation Committee - 22 October 2020](#). The live stream will be suspended for any exempt items on the agenda. Please email committees@broads-authority.gov.uk with any queries about this meeting.

Introduction

1. To receive apologies for absence
2. To note whether any items have been proposed as matters of urgent business
3. To receive declarations of interest
4. Public question time – to note whether any questions have been raised by members of the public
5. **To receive and confirm the minutes of the Navigation Committee meeting held on 3 September 2020** (Pages 3-9)
6. **Summary of actions and outstanding issues following discussion at previous meetings** (Pages 10-11)

Reports for discussion

7. **Improving safety on the Broads waterways** (Pages 12-17)
Report by Chief Executive
8. **Proposed navigation charges for 2021-2022 in the navigation area and adjacent waters** (Pages 18-40)
Report by Chief Executive, Chief Financial Officer and Collector of Tolls

Reports for information

9. **Chief Executive's report and current issues** (Pages 41-48)
Report by Chief Executive
10. **Construction, Maintenance and Environment work programme – progress update**
(Pages 49-55)
Report by Head of Construction, Maintenance and Environment

Other matters

11. **To note the date of the next meeting – Thursday 14 January 2021 at 2.00pm**

Navigation Committee

Minutes of the meeting held on 03 September 2020

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Present

Nicky Talbot – in the Chair, Kelvin Allen, John Ash, Linda Aspland, Mike Barnes, Harry Blathwayt, Leslie Mogford (from item 7), Greg Munford, Simon Sparrow, Paul Thomas, Alan Thomson.

In attendance

Dan Hoare – Head of Construction, Maintenance and Environment, Bill Housden – Head of IT & Collector of Tolls, Linda Ibbitson-Elks – Head of Safety Management, Emma Krelle - Chief Financial Officer, John Packman - Chief Executive, Rob Rogers - Director of Operations, Lewis Treloar – Waterways & Recreation Officer, Maria Conti (minutes), Sarah Mullarney (meeting moderator)

Also present

Matthew Haywood and Mike Auger (Norfolk County Council), Alex Crossley (Hudson Architects)

1. Apologies for absence

Apologies were received from Matthew Bradbury and Andy Hamilton.

Remote meeting standing orders and recording

The Chair welcomed everyone to this meeting of the Navigation Committee, which was being held remotely under the Standing Orders for remote meetings adopted by the Broads Authority on 22 May 2020. The meeting was being live streamed and recorded, with the live stream accessible from a link on the Authority's website. The Broads Authority retained the copyright of the recording and the minutes remained the formal record of the meeting.

2. Declarations of interest

Members expressed their declarations of interest as set out in Appendix 1 of these minutes.

3. Matters of urgent business

No items were proposed as matters of urgent business.

4. Public question time

No public questions were raised.

5. Minutes of last meeting

The minutes of the meeting of 11 June 2020 were confirmed as a correct record.

6. Summary of actions and outstanding issues

Members noted the latest summary of actions and outstanding issues following discussions at previous meetings.

Referring to the Network Rail (NR) whole life strategy for swing bridges, the Director of Operations reported that NR had installed shorter rails at Somerleyton swing bridge to help prevent it locking in the heat, and were doing a full structure assessment with further works planned this winter. They had also repaired signal boxes on the line, which had melted in the recent very high temperatures, and had fabricated and installed new locking parts on Oulton Broad bridge, which was operational again.

The Chief Executive referred to serious faults with the electric equipment to raise and lower Haven Bridge, Great Yarmouth. He and the Head Ranger were in constant communication with Norfolk County Council, including writing officially to the Council Leader, to resolve this matter quickly. It was reported that contract work to get the bridge operational again might not be completed until next March, which would have a serious impact on hire boat operators and private boaters. The Authority had asked NCC if the bridge could be opened manually in the meantime, but had been told that the manual winding mechanism was unsafe. The Chief Executive assured members that officers would continue to monitor the situation and press for action.

The report was noted.

7. Chief Executive's report and current issues

Members noted the Chief Executive's report on significant matters relating to the maintenance and management of the waterways.

The Chief Executive acknowledged the Authority's staff and volunteers who had reacted quickly and professionally to deal with the recent fatal accident at Great Yarmouth Yacht Station. The Authority was providing supporting statements to the Marine Accident Investigation Board and the Police. The Chair expressed the Navigation Committee's condolences to the bereaved family, and thanked the Authority's teams for all they had done.

The report was noted.

8. River Wensum missing link project

Representatives from Hudson Architects and Norfolk County Council gave a presentation on the proposed 'missing link' project along the Norwich Riverside Walk on the River Wensum between Duke's Palace Bridge and St George's Bridge. This project was within the River Wensum Strategy. Members' views were invited on the preferred approach presented in the architect's feasibility assessment.

Architectural drawings showed the proposed structure, which consisted of a ramp up from St George's Street onto a suspended walkway along the side of the NUA building and down a second ramp to Duke's Palace Wharf. No part of the structure would be in the water.

A member referred to the potential obstruction to sailing craft from the overhanging trees on the opposite bank (in front of the Norwich Playhouse) at a navigation pinch point, and asked if the trees could be cut back. The Waterways and Recreation Officer said this issue had already

been raised with the Council. The Chair asked if the design would take account of high tidal flooding, and the project team noted that the proposed structure would be no lower than the apex of Blackfriar's Bridge. Another member suggested that shoals in the Old Palace Yard area should be dredged.

It was recognised that there would be some temporary obstruction to navigation to allow the structure to be installed, although some elements would be preassembled off site. Concerns were raised about vessels navigating under the walkway. It was noted that the project team was getting expert advice from the Department of Transport, who had experience of building similar structures elsewhere in the UK. The Director of Operations added that the Navigation Committee had commented on similar proposals, and safety and navigation issues were always assessed on a case by case basis.

The report was noted. The Chair thanked the project team for their presentation, and said the Committee looked forward to seeing more detailed designs.

9. Response to Covid-19 emergency and financial position of the Broads Authority and local businesses

The Chief Executive introduced his update report on the financial impact of the Covid-19 lockdown restrictions on the Broads Authority and hire boat companies, and sought the Committee's views on proposed recommendations to the full Authority as set out in paragraph 4.2 of the report. It was noted that the two members who had declared an interest in this item would not express personal views in this discussion, but could answer any questions from other members.

The Chief Executive reported that the local tourism season was continuing to improve and the waterways were very busy. He thanked the tolls and ranger teams for dealing with large numbers of existing and new waterways users. He noted that, despite a pattern of decline in hire boat numbers since the 1980s, numbers had held up well in recent years. However, the pandemic had retriggered the decline to some extent, with a loss of more than 10% of hire boats this year. Some companies were restructuring or leaving the industry, and others were selling off older boats and investing in fewer, larger boats. A concern for the Authority was the impact of this reduction on toll income next year, as well as this year.

The Chair thanked hire boat operators who had responded to the survey, and invited members' comments.

A member suggested that a repeat survey of hire boat operators should ask about their projected fleet size and bookings for next season. The Chief Executive noted that feedback from yards for this season was that September was fully booked, and some were booking through to November. Next year could be a bumper year, attracting holidaymakers who were nervous about travelling abroad, but conversely there was a risk of further C-19 lockdowns.

A member questioned if the Broads was near capacity in boat numbers, particularly in the northern rivers. The Chief Executive replied that the total number of boats remained relatively

static, with ex-hire boats tending to go into private ownership. A major constraint was the availability of permanent moorings, particularly with bigger boats coming into the system. The Authority had, for some years, been encouraging people to go to the southern rivers, and new projects such as the Suffolk Wildlife Trust (SWT) Carlton Marshes visitor centre would hopefully be a draw. A noticeable difference this year was the number of new users, including more local people. There was also a 13% increase in the use of unpowered craft, including stand up paddle boards and inflatable canoes. A consideration here for the Authority was giving advice to these users on the best areas to navigate and get safely in and out of the water.

As this was a significant year for the Authority's finances, it was agreed to invite all members of the Authority and the Navigation Committee to the next Tolls Review Working Group meeting, which would be held on 5 or 6 October.

It was agreed to recommend to the Broads Authority that it:

- i. Undertakes a further survey of hire boat yard bookings and income at the beginning of October, and that the survey includes questions about projected fleet size and bookings for next year;
- ii. Engages with individual yards to understand more fully their overall income position for this season and the prospects for 2021;
- iii. Requires yards to pay the third toll instalment of 30% by 30 September as already agreed; and
- iv. Delays the date for the fourth and final toll payment of 30% to 30 November, to give time for the Navigation Committee and the Broads Authority to consider the results of the second survey and the level of charges for 2021/22.

10. Potential use of Capital Receipts Reserve

The Chief Financial Officer introduced the report on options for the use of the Capital Receipts Reserve (CRR) to fund improvements to the public facilities at Acle Bridge. The first part of the report outlined the repayment of the Public Works Loan Board loan taken out to purchase the Dockyard from May Gurney in 2007. The CFO noted an error in para 2.3, line 6 which should read 'loss of £733.44' (due to early repayment fees) and not 'saving of £733.44'.

With regard to capital options to further improve the facilities offered to waterways users, visitors and local people at Acle Bridge, members agreed they would need to see a detailed business plan. In response to questions, the Director of Operations said it would be possible to reconfigure and increase the parking space within the existing boundary, and measures to improve access in and out of the site from the road had been considered. The Authority's ambition for the site was for a yacht station style facility, although it was noted that last year's trade for the seasonal café was mainly from road users. It was also noted that waste and recycling facilities in the area could be improved.

The report was noted.

11. CME work programme - progress update

The Head of Construction, Maintenance and Environment (CME) introduced his report on the Authority's management activities to maintain the public navigation, develop mooring facilities for public use, and demonstrate the effective use of available resources.

He also noted the following updates:

- A Notice to Mariners would be issued shortly advising that Meadow Dyke would be closed to navigation in October (8-4 Mon-Fri, excluding half term) to enable dredging. Boats could still navigate through the system outside the closure times. A member referred to the issue of ochre when dredging at Waxham Dyke and Horsey. The Head of CME noted that the main impact was ochre leaching from soils, rather than from sediment, but the team monitored this.
- The CME apprentices were completing their 1-year apprenticeship and had been offered a new role as trainee Operation Technicians for a further year.
- The weed harvester had been employed at Bargate Broad, Surlingham, where water quality improvements had resulted in increased plant growth. The Authority was considering whether the site, a SSSI, would need to be included in future cutting schedules.
- The management of Mutford Lock was moving from Sentinel Leisure Trust to East Suffolk Council. The Broads Authority was going through the agreement details to get this reassigned.

The Chair thanked the CME teams for continuing to maintain the waterways throughout the Covid-19 lockdown period.

The report was noted.

12. Hire boat code – draft version

The Head of Safety Management presented the proposed changes to the Hire Boat Code following consultation with hire boat operators, navigation authorities and other interests.

The report was noted.

13. Annual safety audit

The Head of Safety Management presented the annual review of marine incidents reported during the period April 2019 to March 2020, including an analysis of deaths and personal injury since 1993.

A member asked if the Authority should consider a new byelaw for the mandatory wearing of life jackets between Six Mile House and Breydon Bridge. The Director of Operations said the Authority's core message was that people should wear a life jacket at all times when on the water, rather than just on certain parts of the system. This message was reiterated by hire

boat operators. The message might be diluted by such a byelaw, which could also be difficult to enforce. However, the Boat Safety Group could be asked to look at this suggestion.

The report was noted.

14. Date of next meeting

The next meeting of the Navigation Committee would be on 22 October, starting at 2pm. The meeting would be held remotely.

15. Exclusion of the public

It was resolved that the public be excluded from the meeting under section 100A of the Local Government Act 1972 for consideration of the item below on the grounds that it involves the likely disclosure of exempt information as defined by Paragraph 3 of Part 1 of Schedule 12A to the Act as amended, and that the public interest in maintaining the exemption outweighs the public benefit in disclosing the information.

The public left the meeting and the live stream recording was suspended.

16. Exempt minutes

The exempt minutes of the meeting held on 11 June 2020 were agreed as a correct record of the meeting.

The meeting ended at 15.36pm.

Signed

Chairman

Appendix 1 – Declaration of interests: Navigation Committee, 03 September 2020

Member	Agenda/minute	Nature of interest
Greg Munford	9, 12	Hire boat operator
Simon Sparrow	9, 12	Hire boat operator

Navigation Committee

22 October 2020

Agenda item number 6

Summary of actions and outstanding issues following discussions at previous meetings

Title	Meeting date	Lead officer	Summary of actions	Progress so far	Target date
Network Rail Whole Life Strategy	19/10/2017	John Packman	Network Rail Whole Life Strategy planning for swing bridges and replacing Trowse Swing Bridge with a fixed bridge.	<p>May 2020: Following sensor replacement works at Somerleyton, Reedham & Oulton, Network Rail believes the operational reliability of these bridges will be improved. As we enter Summer 2020 we will monitor opening and breakdowns to ascertain this reliability. The Authority and Network Rail continue to discuss swing bridge issues. The Authority is also part of a Working Group with Norfolk County Council, Norwich City Council, LEP, Network Rail, and Greater Anglia working on the issues at Trowse Bridge and gathering wider support and funding for a replacement/better operational reliability of this bridge.</p> <p>July 2020: The Trowse Rail Bridge Working Group continues to meet. The next phase of this project is to meet with the Train Services Director for Southeastern. This meeting is being arranged and will include spokespeople from the working group, which includes John Packman. Further updates to be provided once a date has been confirmed.</p> <p>Sept 2020: The Authority has written officially to Norfolk County Council regarding Haven Bridge, Great Yarmouth. The County Council hopes to have a manual system for opening the bridge working.</p>	
Planning application with navigation implications: BA/2018/0466/FUL – Land at Burgh Castle – BFAP Compartment 34	17/01/2019	Rob Rogers	Lease arrangements and re-piling at Burgh Castle for the reinstatement of free 24 hour moorings.	<p>Following an exempt paper considered at Navigation Committee and Broads Authority, officers presented the landowner with a series of options on the alternative Burgh Castle mooring site, based upon the recommendations within the exempt report. We await the landowners response.</p> <p>16/01/20: Members supported 99-year lease agreement, including the Broads Authority taking on full responsibility for the piling structure.</p> <p>21/01/20: Management Team agreed 99-year lease at peppercorn rent and for Broads Authority to take full responsibility for the piling structure at Burgh Castle moorings.</p> <p>27/05/20: Development and improvements at Belton Reach (new name for Burgh Castle's moved mooring location) are progressing from an operational planning perspective, although the project has been deferred to 2021/2022 due to Covid-19 funding issues.</p>	

Title	Meeting date	Lead officer	Summary of actions	Progress so far	Target date
Feedback on Navigation Committee appointment process	13/06/2019	John Packman	Areas identified for improvement in co-opted member appointment process. Members discussed list of user organisations consulted as part of process, for feedback to officers.	Member feedback has suggested grouping organisations by interest rather than consulting a large list of individual organisations. Any formal changes to the process will be presented to the Broads Authority to adopt for future appointments.	01/09/2022
Safety by the water – draft guide	05/09/2019	Natalie Beal	Draft guide produced to support Broads Local Plan. Members suggested the guide be reviewed by the BA's solicitor for advice on adding a disclaimer at the beginning of the document.	The comments of the Navigation Committee will be reported to the Planning Committee. The final guide will be shared with Navigation Committee members for review before it is adopted by the Broads Authority. This will be reported to Navigation Committee at a future date.	
Landscapes Review	16/01/2020	John Packman	Members asked to comment on BA's proposed response to Landscapes Review (Glover Report) to report to BA meeting on 31 Jan 2020.	Broads Authority report 31/1/20 on Landscapes Review Proposal 27: A new financial model – more money, more secure, more enterprising; "unnecessary complexities, such as the requirement for the Broads Authority to account for income and expenditure from National Park Grant separately ... should be addressed." BA draft response is that it would be a Government decision whether to combine the finances and the BA would await the Government's response. A response is expected before the end of the calendar year.	
Mooring priorities - update	16/01/2020	Rob Rogers	Members made recommendations on mooring updates previously reviewed by the Committee on 13 June 2019.	Lease negotiations of new and existing sites progressing. Aug 2020: The Acle Bridge moorings are open after major repairs to the piling, and the electric charging posts will be operational soon when UK Power Networks connects the power. The Castle Staithe mooring at Wroxham is repaired and open to the public. Stalham Staithe mooring repairs are complete; when the Land Registry have completed the land transfer to the Town Council, the agreement with the BA to manage the site as a 24 hour mooring will start.	

Date of report: 06 October 2020

Navigation Committee

22 October 2020

Agenda item number 7

Improving safety on the Broads waterways

Report by Chief Executive

Purpose

To consult members on proposed measures to improve safety on the Broads waterways.

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1. Introduction

- 1.1. Following the lifting of Covid-19 restrictions and ‘unlocking’ of the Broads in June, which allowed the public to venture out and stay away from their home locations overnight, the Broads National Park has seen a massive upswell in visitors. This influx has been compounded by the shorter holiday season, usually starting in April, which was condensed into July, August and September.
- 1.2. Many of these visitors are new to the Broads, with some hire boat companies reporting that over 80% of their holiday bookings have been to families and groups who have not hired a boat here before. While this has been excellent news for Broads businesses, a

new audience brings many challenges and we have seen a lower level of experience in boat handling and an increase in poor behaviour.

- 1.3. The Broads is a relatively safe environment for the boating public, but this year in a short period there have been four fatal accidents, three in a very short period. On 19 June, a man returning to the boat he lived on missed his footing and drowned in the River Wensum in Norwich. On 19 August, a woman fell from a boat near the Great Yarmouth Yacht Station and was fatally injured under the boat. On 6 September, a man returning to a boat at Loddon Staithe fell in and drowned. On 15 September, a man was severely injured by contact with a propeller in the Lower Bure and later lost his life from his injuries.
- 1.4. These have been terrible accidents. As well as thinking about the families and friends of those who died, our staff who attended the scenes were deeply affected by the incidents, requiring support from the Authority. This season has also seen a high number of serious incidents and injuries, including broken legs and ankles from falls.
- 1.5. The Department of Transport's Marine Accident Investigation Branch (MAIB) is investigating the fatal incident on 19 August, and the Head of Ranger Services and I met them recently, as has our Head of Safety Management. The normal timescale for the publication of their findings is 7-9 months. While it would be wrong to comment on the individual incidents at this stage, or try to second guess what recommendations will be in the MAIB Report, the Authority has a duty regarding public safety on the water and needs to respond to the increase in poor behaviour on the water and to the issues that have emerged from the discussions with the MAIB Inspectors. The Inspectors have indicated that any actions taken by the Authority in advance of the publication of their report can be included within it.

2. Pre-visit training

- 2.1. Last year, the Authority discussed the proposal that an online training package should be jointly developed with the hire boat industry, part-funded by the industry and with a financial contribution from the Authority of £20,000 funded by a small increase in tolls. This option was not actioned in 2019.
- 2.2. In the light of the incidents this year, this project is re-presented as an option, with the view to making it compulsory for most hirers to provide evidence that they have completed the training course before their holiday. Some hirers, such as those providing sailing boats, already require evidence of competence through a qualification.
- 2.3. This proposal has since been welcomed by the Broads Hire Boat Federation.

3. Handover procedure

- 3.1. Questions have been raised about the adequacy of the handover procedure, particularly the following:

- Is it appropriate for a hirer to have the option not to have a river trial, on the basis of having made a previous visit?
 - Should more than one person be trained to operate the vessel?
 - Given the tidal nature of the system, is the duration of the practical training session offered sufficient to equip the recipient with the required knowledge to safely command the vessel?
- 3.2. These questions were all discussed at the recent meeting of the Boat Safety Management Group. It was agreed to take up these issues with the Broads Hire Boat Federation as a matter of urgency.

4. Hire boat licensing

- 4.1. The Broads Authority is the licencing authority for hire boat operators who supply vessels within the Broads executive waters. This relationship and our duties and powers have been a line of questioning from the MAIB following the fatality in August.
- 4.2. The licencing charges made by the hire companies allows the Authority to employ a Licensing Officer on a part-time basis. The role of this Officer is to audit the hire companies to ensure that compliance against the Hire Boat Code is maintained. The audit is heavily focused on safety (handover) and the information (awareness of tides, bridges, navigation marks, moorings) given to hirers.
- 4.3. In December 2019, the Hire Boat Code was put out for consultation. The proposal for changes to the Code considered the many advances in boat design, regulation and operation since the first Code was published in 2008, to make sure the licensing framework is fit for the future. The outcome of this consultation has been delayed due to Covid-19.
- 4.4. As part of the MAIB investigation is focusing on hire boat licencing and powers within the Broads Authority Act 2009 and the Code itself, the Authority will also carry out an internal review of its function as part of its continual improvement plan.

5. Tidal conditions

- 5.1. On a few occasions over recent years, the Ranger team has provided briefing sessions for hire yard staff at Great Yarmouth Yacht Station to familiarise those staff with the area and conditions. For the 2021 season, Rangers and Yacht Station staff will be available to host free training sessions for all boatyard staff involved in handovers. These will be held at the start of each season. Training will include first-hand experience of the tides and water flow (either from the shore or a short boat trip), a discussion on what boaters get wrong and, most importantly, what they need to know to keep safe. Training could also cover general issues such as speeding and wash around the whole Broads system. It could also extend to throwline training, which could be done in partnership with RNLI.

6. Single sex and young parties

- 6.1. For several years the Broads Beat team has carried out a 'meet and greet' service, when they are available at yards to speak to single sex crews before they start their holidays. Lists of single sex crews and young crews are provided by yards to both the Police and Authority ahead of these groups arriving. This 'meet and greet' service has proved a successful tool in helping such groups to understand the area, safety considerations and their potential impact on others using the area. However, it is time consuming and, on turnover days with multiple groups going out, not all can receive this briefing.
- 6.2. Single sex parties, often celebrating key events in their lives, are welcome on the Broads. They may well return to holiday in the area later in life. However, their behaviour is often influenced by the consumption of large amounts of alcohol which in itself can be dangerous but it can also be distressing and dangerous to other water users and residents who live adjacent to the rivers and Broads.
- 6.3. The Authority has a long term and successful relationship with the Norfolk Constabulary through Broads Beat, with the Authority making an annual contribution towards the costs of two officers. The Authority will review the situation with the Broads Beat officers.

7. Information and key messages

- 7.1. This season our communications team has been actively distributing additional safety messages through various channels including Authority social media accounts, website and press releases. Most recently this has featured specific advice relating to autumn boating. The 'infographic' style of messaging has resulted in good engagement from partners and the public.
- 7.2. The team is planning a comprehensive safety campaign for the 2021 season, aimed at people new to boating. This includes the filming of several short video clips on key safety topics such as planning ahead, mooring, bridges and tides and 'safety do's and don'ts which can be published online and promoted through social media. There would also be a specific film covering paddle sports, an activity that has proved so popular this year. Other initiatives include refreshing our boat safety copy within Broadcaster, producing downloadable posters, encouraging boatyards to send Broadcaster with booking confirmation information, and the creation of a series of boat safety stickers for children to collect. These initiatives will be funded from existing National Park grant budgets allocated to tourism and promotion.

8. Ranger services

- 8.1. Our Rangers and the staff at the Yacht Stations play a crucial role in advising and helping inexperienced hirers to enjoy the waterways safely. However, for the reasons set out below, our eight launches are not on patrol every day during the summer season. Typically, the launches are on patrol four days a week on average (NB. The

Breydon and Wroxham launches are out nearly seven days a week). While an increased number of Rangers would not have made any difference to the recent fatalities, it would have had an impact on managing the high levels of anti-social behaviour. With bookings at record levels, the Authority needs to consider whether it can afford to increase the Ranger coverage in the summer.

- 8.2. The Rangers' role is not just focused on patrolling (navigation). Usually their duties are split 60% on navigation functions and 40% on National Park work. Consequently, they have been funded 60% from Navigation Income and 40% from National Park Grant. This year because of the pressures on the waterways much more time has been spent on navigation activity (current estimate for the year 70% which will need to be updated with end of season data) and consequently the financial split will need to be adjusted at the end of the year to reflect work done. Patrolling and mooring checks were considered 'essential' work which we prioritised while most of the countryside tasks including educational visits and events were cancelled.
- 8.3. Their non-patrolling duties include carrying out countryside checks (each team has a land area to manage and check for safety – for example, Potter Heigham Staithe, Careys Meadow). They also have duties like tree and scrub maintenance, mowing Rights of Way (to meet the 40% countryside element), and carrying out the inspection of navigational marks and welfare checks on constant cruisers. Factor in adjacent waters, prosecution files or chasing up warnings and other blue book issues, and it all adds up to a considerable amount of time on tasks other than patrolling.
- 8.4. Rangers are contracted to work 37 hours a week, and have terms and conditions like all our staff. Their work is rostered and designed to allow maximum network coverage, but it has to factor in other duties, time off in lieu (accrued due to them not always being able to always finish on time if dealing with river issues), annual leave, sickness and escorts or other urgent duties, and allowing break periods and some weekends off.
- 8.5. Navigation income currently pays for 60% of a Ranger's time (Note: it will be adjusted at the end of the year to reflect actual time spent). This is prioritised on patrolling, but current funding does not afford cover on all launches over a 7-day week.
- 8.6. The support from our Volunteer Rangers is helpful, but it must be acknowledged that their role is limited:
 - Some volunteers are not active under Covid-19 mitigation rules because of their vulnerability;
 - They do not have the same powers or experience as a full-time Ranger and therefore are not required to function as a paid employee. They offer a reassuring presence; and
 - Volunteer Rangers enhance the Ranger service, they cannot replace it.
- 8.7. This year the volume and concentration of visitors has seen most parts of the network at peak levels, and the forecast is the same for next year. Indeed, next year will

probably be busier as the season will hopefully start in April and end in November as usual, giving high visitor numbers all season, extending the issues over a longer period and further stretching the existing Ranger team and the Quay Assistants.

- 8.8. An important part of the Ranger role is following through on severe breaches of the byelaws, with prosecutions in the Magistrates Court for offences such as speeding. Preparing a case file to the standard expected by the Crown Prosecution Service can take a week of a Ranger's time. Although prosecution is used only in the most serious offences, there are currently 38 outstanding prosecutions, amounting to more than a Full Time Equivalent Ranger's time. One option which is proposed is to have a Ranger dedicated to this task, enabling the rest of the team to spend more time out on patrol.
- 8.9. Rangers are the first line of assistance for most visitors, dispatched via Broads Control to deal with all manner of issues. Due to working hours we need to stagger when we have Rangers out. In the height of summer when there are 12 hours of daylight, boating traffic starts at first light and continues until 9pm-10pm. Many incidents (speeding, anti-social behaviour, untolled craft) often happen after 6pm when some users think Rangers have logged off.
- 8.10. A Ranger patrol is like a Bobby on the beat; it reassures many and its visible presence can often deter bad behaviour. If the objective was to have seven days a week 'Ranger in launch' service, we would need to increase the Ranger numbers during the peak season (April to November) by four seasonal employees. They could be contracted to work afternoon through to evening shifts, extending the cover both in terms of the number of days and the hours.

9. Financial implications

- 9.1. The estimated cost of the Authority's contribution to the interactive online safety training is £20,000, though this relies on contributions from the industry to meet the full cost. The costs of the additional Ranger to manage prosecutions and follow up on the Boat Safety Scheme, and four additional Seasonal Rangers, would be £110,000 in the first year. The funding of these items is covered in the following report on tolls for 2021/22.

10. Risk implications

- 10.1. There are significant risks to the public and the Authority if we and the Broads hire boat companies do not respond to the concerns raised in this report.

Author: John Packman

Date of report: 09 October 2020

[Broads Plan](#) objectives: 4.3

Navigation Committee

22 October 2020

Agenda item number 8

Proposed navigation charges for 2021/22 in the navigation area and adjacent waters

Report by Chief Executive, Chief Financial Officer, and Collector of Tolls

Purpose

To update members on the financial position of the hire boat companies and prospects for next year, and to consult members on the proposed level of navigation charges for 2021/22.

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1. Introduction

1.1. This report has two purposes:

- a. to report on the second survey of hire boat companies and consider the level of the final toll instalment of hire boat tolls due at the end of November 2020; and
- b. to consider the level of navigation charges for all vessels for 2021/22.

1.2. A briefing on tolls was held for all Broads Authority members, including the co-opted members of the Navigation Committee, on 5 October. 14 Authority members and four of the six co-opted members of the Navigation Committee attended. There was support at the meeting for an increase in tolls to maintain existing services and fund a package of safety measures including additional Rangers and a contribution to an online training system for those hiring boats on the Broads.

2. Survey of hire boat companies

2.1. At the last meeting, we reported on the recovery of the tourism industry following the partial lifting of the Covid-19 restrictions. The earlier survey of hire boat companies has been repeated, asking four questions:

1. Please can you provide an estimate of overall income for the period 1st April to 31st December 2020, taking account of any grants from Government assistance such as the Job Retention Scheme or grants from local authorities, compared to actual income for 1st April to 31st December 2019.
2. Could you please give an indication of forward, confirmed bookings for 2021 compared to bookings placed at the same point in 2019 for this year.
3. Please confirm the number of boats you are planning to operate in 2021 separated into the different classes (such as day boats, weekly hired, houseboats, passenger boats, etc.) identifying any increases or decreases.
4. Do you plan to take any other measures to reduce or increase the capacity for bookings in 2021 and if so, please briefly describe what they are? (e.g. adding an extra week to the start or end of the season)

2.2. The results of the survey will be reported at the meeting.

3. Predicted outcome for 2020/21

3.1. Appendices 1 and 2 show the number of hire and private boats in the different categories as at 30 September 2020. There has been an overall reduction of 270 (2.7%) in the number of private boats. This figure includes a reduction of 176 in sailing craft and 149 in motor cruisers, offset by an increase of 247 (16.1%) in rowing craft. The latter category includes stand-up paddleboards and small rowing dinghies, which have been particularly popular this year. It is not clear at this point whether the reduction in private boats is a permanent feature or a temporary reaction to the Covid-19 lockdown.

We are still chasing some private owners whose boats have been observed in the Broads waterways without a valid toll.

- 3.2. For hire boats, there has been a 154 (10.5%) reduction overall. The loss of 65 weekly hire motor cruisers, which account for most of the hire boat income, is the most significant. We are also aware that there will be further reductions in 2021. In part this is a symptom of the ongoing restructuring of the industry with the sale of older, less attractive boats and the investment of the proceeds in new larger boats by some of the bigger yards, and the exit of smaller non-profitable operators.
- 3.3. The impact of these reductions is a predicted loss of £170,000 in income, assuming the full final instalment of the hire boat tolls is paid in November.

Table 1

Toll income to 30 September 2020

Income	Private Boats	Hired Boats
Actual	£2,097,663	£1,099,134 (£698,664) ¹
Budget	£2,244,000	£1,199,000
Current Shortfall	- £146,337	- £99,866
Predicted Shortfall	c £70,000	c £100,000

- 3.4. At the start of the financial crisis arising from the Covid-19 situation, the Authority agreed with DEFRA that it would make savings of £400,000 before it would transfer any funds from the National Park Reserve (£400,000), or draw down funds available from the Control Change Notice (up to £800,000). Our Navigation savings consisted of £215,520 from cancelled contributions to earmarked reserves, £157,015 from delayed projects, cancelled activities, and the remainder from the Navigation Reserve.
- 3.5. The main projects to be delayed are the mooring refurbishment and electric charging points at Belton Reach (£125,250) and the dredging on the River Chet (£16,690). Both have been rescheduled for the 2021/22 work programme. We have also delayed the mooring sign upgrades, with a saving of £5,533. There were also smaller scale savings made from the Yacht Stations not being fully operational, and travel and conference budgets not being required (£9,542). Without those savings and delayed expenditure, the Predicted Outturn would be a deficit of £314,073, Reserves would fall to £223,627, just 6.1% of expenditure and well below the current agreed minimum.
- 3.6. However, the excess of savings in the main account over the potential losses now means that the Navigation Reserve is predicted to rise to £559,835 and would stand at

¹ This is amount actually received. The figure above includes the amount paid in the 4th instalment.

16.8% of expenditure, above the 10% minimum level adopted by the Authority (see Table 2) though this is at the expense of the earmarked reserves.

Table 2

Predicted outturn

Income and Expenditure	Latest Available Budget 2020/21	Predicted outturn 2020/21
Navigation Income	£3,525,600	£3,345,420
Expenditure	£3,659,493	£3,323,285
(Surplus)/Deficit	£133,893	(£22,135)
Transfer of accrued interest to earmarked reserves	£10,250	£5,500
Opening Reserves	£543,200	£543,200
Closing Reserves	£399,057	£559,835
Reserves as % of Expenditure	10.9%	16.8%

4. Significance of maintaining earmarked reserves

- 4.1. The Authority funds capital expenditure and, crucially, the replacement of vessels, vehicles and equipment from the earmarked reserves, and we would advise that the deferred payments to reserves be paid as soon as possible. The balances on the earmarked reserves at the end of September are in Table 3 below.
- 4.2. The Authority carries assets on its balance sheet that cover vessels (launches and wherries), vehicles and equipment (excavators, mud pumps) that have a historic cost value of £2.7m. The working life of these pieces of equipment varies from 5 to 25 years and the earmarked reserves are used for their replacement at their end of life. Without dedicated earmarked reserves, these pieces of equipment would need to be funded from revenue budgets, as the Authority does not receive capital grants. Where a launch can cost £100,000 plus, the earmarked reserves allow the Authority to smooth the cost over a number of years, meaning there are not sudden large increases when big pieces of equipment need replacing. Similarly, the Authority has similar liabilities relating to property (Mutford Lock) and its premises.

Table 3
Earmarked Reserves

Reserve	Balance 1 April 2020	In-year movements	Balance 30 September 2020
Property	£393,440	£962	£394,402
Plant, Vessels & Equipment	£310,245	(£31,465)	£278,780
Premises	£89,966	0	£89,966
CANAPE	£155,922	(£70,906)	£85,016
Computer Software	£7,184	(£161)	£7,023
Total	£956,757	(£101,570)	£855,187

5. Maintaining services

- 5.1. While general inflation is at a low rate (CPI=0.2% in August), the Authority's costs continue to rise. After a number of years with no or very low pay increases, the Local Government pay award this year is 2.75% (0.75% above the 2% budgeted); salaries account for roughly 66% of the Authority's costs.
- 5.2. To maintain the current level of services, taking account of inflationary pressures and the decline in the number of hire boat numbers, a 3% increase in tolls is required. Under that scenario, Navigation income would be set at £3,421,650 in 2021/22 (£100,000 below this year's budget and c.£80,000 above the predicted outturn). The profile for income to maintain services is shown in Table 3.

Table 3
Income to maintain services

Income and expenditure	2021/22	2022/23	2023/24
Navigation Income	£3,421,650	£3,544,900	£3,691,900
Expenditure	£3,546,320	£3,578,048	£3,699,257
(Surplus)/Deficit	£124,670	£33,148	£7,357
Transfer of accrued interest to earmarked reserves	£3,375	£5,000	£7,500
Opening Reserves	£559,835	£431,790	£393,642
Closing Reserves	£431,790	£393,642	£378,785
Reserves as % of Expenditure	12.2%	11.0%	10.2%

6. Package of safety measures

- 6.1. The summer season has seen intense activity on the waterways, with poor behaviour by some hirers and private owners, and three recent tragic fatal accidents (detailed in the previous report on this agenda). Safety within the Broads waterways must be the Authority's number one priority.
- 6.2. The Authority will engage with the Broads Hire Boat Federation and the Norfolk and Suffolk Boating Association to improve safety. As well as working with the companies on their handover procedure, the development of an online training package for hirers is considered essential. It is proposed that the costs would be shared with the industry and the Authority would contribute £20,000.
- 6.3. Another key action the Authority can take is to increase the amount of time the Rangers launches are out on the water. There are two ways to do this. Firstly, a great deal of Ranger time is taken in preparing prosecution files to the standard required by the Crown Prosecution Office for offences such as speeding. The appointment of an additional full-time Ranger to deal with prosecutions and to enforce Boat Safety Scheme standards would release a lot of time for other Rangers. If we wanted every launch to be on the water during the main season, then four additional seasonal Rangers would also be required. This would make a very visible and noticeable increase in the Authority's presence on the water, respond positively to the wish of many boat owners shown in toll payer surveys to see more Rangers on the water, and allow us to be proactive in dealing with poor user behaviour and increase support and advice to both hirers and private boat owners. The cost of these additions would be £110,000. The total cost of the package would be approximately £130,000 in 2021/22 and £120,000 in 2022/23.

7. Pressures and savings

- 7.1. Officers have looked at ways to reduce navigation related costs within the Authority. Budget holders were asked to plan for a 5% reduction in expenditure when submitting their requests for 2020/21. These requests were reviewed by Management Team prior to considering the potential level of tolls for 2020/21. While it has been possible to defer payments to the earmarked reserves and delay important projects, this is not possible for a second year and no further savings have been identified without having a significant impact on the services delivered.
- 7.2. It is important to be aware that, in following up Notices of Contravention for failure to pay a toll, our dedicated tolls team has been subject to more abusive phone calls than normal, from private boat owners angry about having to pay this year's charge following the period of Government imposed lockdown. Any toll increase next year is likely to exacerbate the situation.
- 7.3. The decline in the number of hire boats this year, and a predicted further reduction next year combined with fewer private boats, means that if the Authority is to maintain

the waterways to their current standard and services provided to boat owners, then tolls would have to rise to fill the gap: +3% to maintain services, or +7.5% to include the package of safety measures presented at section 6.

- 7.4. Members should also be aware that we need to start planning for the replacement of our online tolls system. This was developed in 2006 at a cost of £80,000, which was funded from specific Implementing Electronic Government funding provided to National Park Authorities and the Broads Authority. The software is at the end of its life and needs replacing. A project to do this will start in 2021, with a specification and business case developed for implementation from 2022. It is likely to involve a substantial capital sum and it may be appropriate to borrow the necessary finance and repay the costs over a period, which will be presented to members when we prepare the budget for 2022/2023 in a year's time.

8. Social, economic and environmental implications

- 8.1. Our toll payer surveys show that the Authority's tolls account for less than 10% of the typical costs of owning a boat. While boat ownership may be seen by some as a luxury, we know that this is not always the case. Covid-19 has had serious impacts on many people in ways that cannot yet be fully measured or appreciated. However, it is fair to say that many people face uncertainty regarding their financial security. Our community of private boat owners is diverse in nature and some may face difficult decisions regarding their continuing boat ownership. The resulting effect on private boat numbers in the Broads cannot be predicted.
- 8.2. Bookings for next year's hire boat holidays are exceptionally strong and the urgent need to improve safety on the Broads is a compelling argument for an increase in tolls, to pay for the package outlined above. However, it is acknowledged that companies in an already vulnerable financial position may find it difficult to afford the increased toll.

9. Financial implications

- 9.1. The Authority faces difficult choices this year. The ongoing uncertainty of the Covid-19 situation and the decline in hire boat income has reduced its navigation income at a time when it must take greater action to improve safety for all on the Broads.
- 9.2. The balance of the Navigation Reserves is recommended at a minimum level of 10% of net expenditure, which has been in place for a number of years and was previously considered adequate. The Covid-19 pandemic highlighted that our reserves would have not supported a prolonged lockdown. The reopening of the waterways means that our forecast is more optimistic, and shows that a detailed review of the appropriate level of reserves should be carried out in 2021/22. Any increase would need to be phased in over a number of years, through increased tolls charges to minimise the impact to the toll payers.

- 9.3. In response to a presentation setting out a series of options and seeking the guidance from the members attending the Tolls Briefing in early October, their initial feedback was that the Authority should raise tolls by 7.5% to keep up the existing level of maintenance of the waterways and the services provided to toll payers, as well as to fund a package of safety measures.
- 9.4. We have been giving this careful consideration and exploring if there is a different way of delivering the additional expenditure supported by Members.
- 9.5. Earlier this year the Authority agreed with Defra that, on an emergency once only basis, National Park Reserves could be used in 2020/21 to support Navigation Expenditure. This was in the context of the financial emergency faced by the Authority.
- 9.6. There is still a great deal of uncertainty around the level of National Park Grant for 2021/22, with the range of possible outcome being between a -5% reduction and an inflationary increase. At the moment the most likely scenario is flat cash. The projected deficit on the Authority's National Park Grant expenditure for 2020/21 will be £243k. The Authority's current level of reserves enables it to sustain this in the short term. The deficit is projected to be another £426,000 over the next two financial years after 21/22. While the Authority has strong National Park Reserves it will need to adjust spending down to match income with expenditure in the next few years. For 2021/22, subject to approval from Defra, the emergency safety package could potentially be funded from National Park Reserves.
- 9.7. An option officers could explore with Defra officials is whether the Department would permit the one-off use of £250,000 of National Park Reserves to fund the additional safety package in 2021/22 and 2022/23 and its impact reviewed in the second year. This would make it possible to deliver the safety objectives while limiting the tolls increase. To support the case with DEFRA, we would recommend an increase of navigation charges by 4% in 2021/22, just above the 3% necessary for maintaining services, such that the Authority could be in a reasonable position to continue funding safety measures in 2023/24 onwards, from navigation income, if that proved necessary.
- 9.8. This would clearly reduce the resources available to deliver National Park functions, but given the high priority members have accorded to public safety it may be justified and acceptable to Defra.
- 9.9. Charges on the Broads still represent good value for money. In recent years, toll increases have been modest and costs have been kept down through careful management. An illustration of the 4% and 7.5% increase is given in Table 4, which shows the impact in cash terms for different types of craft of different sizes.

Table 4

Sample 2021/22 charges for different vessels for two scenarios (+4% and +7.5%)

Type of Vessel	Size in Metre ²	Number (30 Sep 2020)	Toll 2020/21	+4.0%	+7.5%
Private Sailing craft	5	422	£42.70	+£1.70	+£3.20
Private Sailing craft	11	122	£93.94	+£3.74	+£7.04
Private motor boat	5	699	£69.90	+£2.80	+£5.25
Private motor boat	15	236	£209.70	+£8.40	+£15.75
Private motor boat	22	315	£307.56	+£12.32	+£23.10
Private motor boat	38	107	£531.24	+£21.28	+£39.90
Day hired boat – diesel and petrol	12	65	£578.16	+£23.16	+£43.32
Weekly hired motor craft	38	58	£1196.62	+£47.88	+£89.68
Weekly hired motor craft	48	61	£1511.52	+£60.48	+£113.28

9.10. A full list of the implications of these alternatives as applied to every vessel is in Appendix 3.

10. Risk implications

10.1. The setting of tolls is always challenging. In the current situation, the Authority must be mindful of both the impact of the falling numbers of hire boats on its income and the risk of not taking decisive action to improve safety.

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[Broads Plan](#) objectives

Appendix 1 – Hire Boat numbers on 30 September 2020

Appendix 2 – Private Boat numbers on 30 September 2020

Appendix 3 – Schedule showing 4.0% and 7.5% increase in charges for 2021/22

Appendix 1 – Hire Boat numbers on 30 September 2020

Class of Hire Boat	2018	2019	2020	Change 2019-20	% Change
Motor Cruisers	806	801	736	-65	-8.1%
Auxiliary Yachts	46	44	37	-7	-15.9%
All cabin hire boats:	852	845	773	-72	-8.5%
Day Launches	301	297	262	-35	-11.8%
Outboard Dinghies	9	8	4	-4	-50.0%
Passenger Vessels MCA	6	6	5	-1	-16.7%
Passenger Vessels SPB	7	7	4	-3	-42.9%
Total motor boats:	1,175	1,163	1,048	-115	-9.9%
Sailing Craft	95	87	74	-13	-14.9%
Rowing Craft	194	193	174	-19	-9.8%
Houseboats	26	26	19	-7	-26.9%
Total	1,490	1,469	1,315	-154	-10.5%

Appendix 2 – Private Boat numbers on 30 September 2020

Private boats	2018	2019	2020	Change 2019-20	% Change
Motor Cruisers	5,022	5,024	4,875	-149	-3.0%
Auxiliary Yachts	1,086	1,097	945	-152	-13.9%
Day Launches	561	549	540	-9	-1.6%
Outboard Dinghies	1,036	1,039	1,023	-16	-1.5%
Workboats	155	153	141	-12	-7.8%
Passenger Vessels SPB	21	23	13	-10	-43.5%
Total Motor Boats:	7,881	7,885	7,537	-348	-4.4%
Sailing Craft	1,068	1,010	834	-176	-17.4%
Rowing Craft	1,499	1,531	1,778	247	16.1%
Houseboats	46	47	45	-2	-4.3%
Total Unpowered Boats	2,613	2,588	2,657	69	2.7%
Total Private Boats	10,494	10,473	10,194	-279	-2.7%

Appendix 3 – Schedule showing 4.0% and 7.5% increase in charges for 2021/22

Category 1 – Weekly hired motor craft

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
12	13	377.88	15.12	28.32
13	1	409.37	16.38	30.68
15	8	472.35	18.90	35.40
17	1	535.33	21.42	40.12
18	4	566.82	22.68	42.48
19	6	598.31	23.94	44.84
20	11	629.80	25.20	47.20
21	11	661.29	26.46	49.56
22	18	692.78	27.72	51.92
23	6	724.27	28.98	54.28
25	7	787.25	31.50	59.00
26	9	818.74	32.76	61.36
27	9	850.23	34.02	63.72
28	34	881.72	35.28	66.08
29	12	913.21	36.54	68.44
30	19	944.70	37.80	70.80
31	13	976.19	39.06	73.16
32	11	1007.68	40.32	75.52
33	16	1039.17	41.58	77.88
34	12	1070.66	42.84	80.24
35	17	1102.15	44.10	82.60
36	18	1133.64	45.36	84.96
37	46	1165.13	46.62	87.32
38	58	1196.62	47.88	89.68

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
39	35	1228.11	49.14	92.04
40	24	1259.60	50.40	94.40
41	16	1291.09	51.66	96.76
42	26	1322.58	52.92	99.12
43	11	1354.07	54.18	101.48
44	52	1385.56	55.44	103.84
45	3	1417.05	56.70	106.20
46	47	1448.54	57.96	108.56
47	10	1480.03	59.22	110.92
48	61	1511.52	60.48	113.28
49	4	1543.01	61.74	115.64
50	27	1574.50	63.00	118.00
51	19	1605.99	64.26	120.36
52	28	1637.48	65.52	122.72
54	4	1700.46	68.04	127.44
56	3	1763.44	70.56	132.16

Category 2 – Weekly hired motor craft electric

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
21	1	455.07	18.27	34.23
40	1	866.80	34.80	65.20
41	1	888.47	35.67	66.83
48	3	1040.16	41.76	78.24

Category 3 – Day hired boats

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
6	2	289.08	11.58	21.66
7	1	337.26	13.51	25.27
8	14	385.44	15.44	28.88
9	19	433.62	17.37	32.49
10	37	481.80	19.30	36.10
11	41	529.98	21.23	39.71
12	65	578.16	23.16	43.32
13	14	626.34	25.09	46.93
14	7	674.52	27.02	50.54
15	6	722.70	28.95	54.15
16	2	770.88	30.88	57.76
17	2	819.06	32.81	61.37
21	2	1011.78	40.53	75.81

Category 4 – Day hired electric boats

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
7	5	230.93	9.24	17.29
9	1	296.91	11.88	22.23
10	12	329.90	13.20	24.70
11	15	362.89	14.52	27.17
12	6	395.88	15.84	29.64
14	4	461.86	18.48	34.58
15	5	494.85	19.80	37.05
17	1	560.83	22.44	41.99
21	1	692.79	27.72	51.87

Category 5 – MCA passenger boats and small passenger boats

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
5	1	207.20	8.30	15.55
8	1	331.52	13.28	24.88
23	1	953.12	38.18	71.53
37	1	1533.28	61.42	115.07
72	1	2983.68	119.52	223.92
84	1	3480.96	139.44	261.24
89	2	3688.16	147.74	276.79
98	1	4061.12	162.68	304.78

Category 6 – Motorised sailing craft for hire

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
13	1	332.28	13.26	24.96
17	1	434.52	17.34	32.64
18	2	460.08	18.36	34.56
19	1	485.64	19.38	36.48
21	3	536.76	21.42	40.32
22	1	562.32	22.44	42.24
23	3	587.88	23.46	44.16
24	2	613.44	24.48	46.08
25	7	639.00	25.50	48.00
26	5	664.56	26.52	49.92
29	1	741.24	29.58	55.68
30	2	766.80	30.60	57.60
35	2	894.60	35.70	67.20

Category 7 – Sailing boats and electric motorised sailing craft for hire

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
5	50	93.45	3.75	7.00
8	1	149.52	6.00	11.20
10	2	186.90	7.50	14.00
11	10	205.59	8.25	15.40
12	1	224.28	9.00	16.80
13	1	242.97	9.75	18.20
14	2	261.66	10.50	19.60
16	9	299.04	12.00	22.40
22	4	411.18	16.50	30.80

Category 8 – Houseboats for hire

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
22	1	351.12	14.08	26.40
23	2	367.08	14.72	27.60
24	1	383.04	15.36	28.80
28	2	446.88	17.92	33.60
29	2	462.84	18.56	34.80
31	1	494.76	19.84	37.20
34	1	542.64	21.76	40.80
35	2	558.60	22.40	42.00
36	1	574.56	23.04	43.20
39	3	622.44	24.96	46.80
40	2	638.40	25.60	48.00
41	1	654.36	26.24	49.20

Category 9 – Rowing boats, canoes etc. for hire

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
All	174	70.13	2.81	5.26

Category 10 – Private motor boats

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
5	699	69.90	2.80	5.25
6	227	83.88	3.36	6.30
7	165	97.86	3.92	7.35
8	145	111.84	4.48	8.40
9	141	125.82	5.04	9.45
10	183	139.80	5.60	10.50
11	228	153.78	6.16	11.55
12	231	167.76	6.72	12.60
13	147	181.74	7.28	13.65
14	181	195.72	7.84	14.70
15	236	209.70	8.40	15.75
16	225	223.68	8.96	16.80
17	107	237.66	9.52	17.85
18	141	251.64	10.08	18.90
19	109	265.62	10.64	19.95
20	124	279.60	11.20	21.00
21	198	293.58	11.76	22.05
22	315	307.56	12.32	23.10
23	256	321.54	12.88	24.15
24	99	335.52	13.44	25.20
25	89	349.50	14.00	26.25
26	96	363.48	14.56	27.30

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
27	110	377.46	15.12	28.35
28	174	391.44	15.68	29.40
29	123	405.42	16.24	30.45
30	112	419.40	16.80	31.50
31	83	433.38	17.36	32.55
32	49	447.36	17.92	33.60
33	98	461.34	18.48	34.65
34	114	475.32	19.04	35.70
35	110	489.30	19.60	36.75
36	54	503.28	20.16	37.80
37	83	517.26	20.72	38.85
38	107	531.24	21.28	39.90
39	93	545.22	21.84	40.95
40	65	559.20	22.40	42.00
41	88	573.18	22.96	43.05
42	69	587.16	23.52	44.10
43	44	601.14	24.08	45.15
44	24	615.12	24.64	46.20
45	16	629.10	25.20	47.25
46	62	643.08	25.76	48.30
47	23	657.06	26.32	49.35
48	23	671.04	26.88	50.40
49	14	685.02	27.44	51.45
50	10	699.00	28.00	52.50
51	10	712.98	28.56	53.55
52	14	726.96	29.12	54.60
53	5	740.94	29.68	55.65
54	14	754.92	30.24	56.70

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
55	13	768.90	30.80	57.75
57	3	796.86	31.92	59.85
60	5	838.80	33.60	63.00
62	8	866.76	34.72	65.10
63	3	880.74	35.28	66.15
64	3	894.72	35.84	67.20
66	1	922.68	36.96	69.30
67	1	936.66	37.52	70.35
68	1	950.64	38.08	71.40
70	2	978.60	39.20	73.50
72	1	1006.56	40.32	75.60
76	2	1062.48	42.56	79.80
77	1	1076.46	43.12	80.85
78	1	1090.44	43.68	81.90
79	1	1104.42	44.24	82.95
80	1	1118.40	44.80	84.00
86	2	1202.28	48.16	90.30
105	1	1467.90	58.80	110.25

Category 11 – Electric private motor boats

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
5	162	53.40	2.15	4.00
6	15	64.08	2.58	4.80
7	12	74.76	3.01	5.60
8	7	85.44	3.44	6.40
9	12	96.12	3.87	7.20
10	4	106.80	4.30	8.00

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
11	6	117.48	4.73	8.80
12	3	128.16	5.16	9.60
13	5	138.84	5.59	10.40
14	1	149.52	6.02	11.20
15	5	160.20	6.45	12.00
16	3	170.88	6.88	12.80
17	1	181.56	7.31	13.60
18	1	192.24	7.74	14.40
19	1	202.92	8.17	15.20
20	1	213.60	8.60	16.00
21	1	224.28	9.03	16.80
22	5	234.96	9.46	17.60
28	1	299.04	12.04	22.40
30	1	320.40	12.90	24.00
31	1	331.08	13.33	24.80
39	1	416.52	16.77	31.20

Category 12 – Motorised sailing craft

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
6	14	62.04	2.46	4.68
7	24	72.38	2.87	5.46
8	42	82.72	3.28	6.24
9	16	93.06	3.69	7.02
10	53	103.40	4.10	7.80
11	69	113.74	4.51	8.58
12	81	124.08	4.92	9.36
13	56	134.42	5.33	10.14

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
14	53	144.76	5.74	10.92
15	58	155.10	6.15	11.70
16	59	165.44	6.56	12.48
17	95	175.78	6.97	13.26
18	46	186.12	7.38	14.04
19	15	196.46	7.79	14.82
20	53	206.80	8.20	15.60
21	37	217.14	8.61	16.38
22	18	227.48	9.02	17.16
23	14	237.82	9.43	17.94
24	5	248.16	9.84	18.72
25	11	258.50	10.25	19.50
26	13	268.84	10.66	20.28
27	3	279.18	11.07	21.06
28	7	289.52	11.48	21.84
29	3	299.86	11.89	22.62
30	2	310.20	12.30	23.40
31	2	320.54	12.71	24.18
35	1	361.90	14.35	27.30
37	2	382.58	15.17	28.86

Category 13 – Private sailing craft and electric motorised sailing craft

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
5	422	42.70	1.70	3.20
6	65	51.24	2.04	3.84
7	42	59.78	2.38	4.48
8	89	68.32	2.72	5.12
9	27	76.86	3.06	5.76
10	37	85.40	3.40	6.40
11	122	93.94	3.74	7.04
12	38	102.48	4.08	7.68
13	8	111.02	4.42	8.32
14	19	119.56	4.76	8.96
15	7	128.10	5.10	9.60
16	5	136.64	5.44	10.24
17	8	145.18	5.78	10.88
18	8	153.72	6.12	11.52
19	7	162.26	6.46	12.16
20	4	170.80	6.80	12.80
21	7	179.34	7.14	13.44
22	1	187.88	7.48	14.08
23	4	196.42	7.82	14.72
24	1	204.96	8.16	15.36
25	2	213.50	8.50	16.00
27	1	230.58	9.18	17.28
28	1	239.12	9.52	17.92
33	1	281.82	11.22	21.12
38	1	324.52	12.92	24.32
40	1	341.60	13.60	25.60
45	1	384.30	15.30	28.80

Category 14 – Private houseboats

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
11	2	60.50	2.42	4.51
17	2	93.50	3.74	6.97
19	3	104.50	4.18	7.79
20	2	110.00	4.40	8.20
24	1	132.00	5.28	9.84
25	1	137.50	5.50	10.25
26	2	143.00	5.72	10.66
27	1	148.50	5.94	11.07
28	2	154.00	6.16	11.48
31	1	170.50	6.82	12.71
33	3	181.50	7.26	13.53
35	2	192.50	7.70	14.35
36	2	198.00	7.92	14.76
38	1	209.00	8.36	15.58
40	1	220.00	8.80	16.40
41	3	225.50	9.02	16.81
43	2	236.50	9.46	17.63
44	1	242.00	9.68	18.04
46	1	253.00	10.12	18.86
48	2	264.00	10.56	19.68
49	2	269.50	10.78	20.09
50	1	275.00	11.00	20.50
52	1	286.00	11.44	21.32
61	1	335.50	13.42	25.01
62	1	341.00	13.64	25.42
69	1	379.50	15.18	28.29
81	1	445.50	17.82	33.21

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
104	1	572.00	22.88	42.64
110	1	605.00	24.20	45.10

Category 15 – Private rowing boats, canoes etc

Size in Metre ²	Number of craft (30 Sep 2020)	Toll 2020/21 £	+4.0% Difference in cash (£) terms	+7.5% Difference in cash (£) terms
All	1778	35.07	1.40	2.63

Navigation Committee

22 October 2020

Agenda item number 9

Chief Executive's report and current issues

Report by Chief Executive

Purpose

To provide an update on significant matters relating to the maintenance and management of the waterways, and allow members to raise any such issues.

Contents

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1. Broads Authority meeting – 25 Sept 2020

Response to Covid-19 emergency and financial position

- 1.1. At the last Broads Authority meeting, members received an update on the financial impact of the Covid-19 restrictions on the Authority and the hire boat industry. The

Authority agreed with the views of the Navigation Committee and endorsed the recommendations in the report.

- 1.2. The third toll instalment for hire boat yards was paid in September as previously agreed, with the fourth and final payment delayed to 30 November. We carried out a further survey of the income for hire boat yard bookings at the beginning of October, and the results will be reported verbally under item 8 on this agenda.

Options for the use of the Capital Receipts Reserve funds

- 1.3. Authority members resolved that early repayment of the Public Works Loan Board would not be appropriate. It was agreed that officers would prepare costed plans for the improvement of the facilities at Acle Bridge for consideration by the Navigation Committee and the Broads Authority at future meetings.

Annual Meeting arrangements

- 1.4. It was agreed to cancel the Authority's Annual Meeting in 2020 and hold the next Annual Meeting in July 2021 as scheduled. Existing member appointments will be effective until that time.

2. Boat Safety Management Group meeting – 5 Oct 2020

- 2.1. The last Boat Safety Management Group (BSMG) meeting focused largely on the incidents reported during the period 1 April to 25 September 2020. As part of their investigation into the fatality at Great Yarmouth Yacht Station, the Marine Accident Investigation Branch (MAIB) highlighted six issues for consideration, which the BSMG discussed. These included the tidal nature of the Broads, qualifications of boat drivers, adequacy of the handover procedure, design of boats, unsafe behaviour of some people using the waterways, and boat numbers and size.
- 2.2. Members agreed that these issues should be raised with hire boat operators, although it was noted that the issues were also relevant to private boat users. The full findings of the MAIB investigation will not be reported for several months.
- 2.3. The Head of Ranger Services is investigating practical training for hire boat operators to highlight the issues that users may face in those areas where tidal influence is stronger. This will also seek to include throwline training from the RNLI.
- 2.4. The Head of Communications informed the BSMG about future safety campaigns for new visitors to the Broads.

3. Navigation patrolling and performance targets

- 3.1. The latest update on the significant use of powers by the Rangers is shown in Appendix 1, and reflects the continued busy period since the easing of lockdown restrictions. Appendix 2 shows the average navigation/countryside splits up to 29 September. As noted in the last report, while the percentage of time spent on patrolling and other navigation work is typically higher in the summer, this year the percentage is above

average. Patrolling was considered a priority task during the Covid-19 lockdown period, and some of the countryside tasks have been deferred.

4. Sunken and abandoned vessel update

- 4.1. The latest position on abandoned and sunken vessels is shown in Appendix 3. Since the last report, two sunken vessels were removed on the Yare and one abandoned vessel was registered. Two further vessels sunk on the Yare within the last week and we are following these up with the owners.

5. Planning enforcement update

- 5.1. There are no planning enforcement matters with navigation implications to report.

Author: John Packman

Date of report: 09 October 2020

[Broads Plan](#) objectives: 4.3

Appendix 1 – Rangers exercise of powers analysis

Appendix 2 – Ranger duties total time allocated and actual days

Appendix 3 – Sunken and abandoned vessels current position as at 08 October 2020

Appendix 4 – Prosecutions dealt with in court for non-payment of tolls since 03 September 2020

Appendix 1 – Rangers exercise of powers analysis: August-September 2020

Table 1

Verbal warnings

Verbal warnings	Wroxham launch Wroxham and upper Bure	Irstead launch Ant	Ludham launch Hickling, Potter Heigham, upper Thurne	Ludham launch 2 lower Thurne and lower Bure	Norwich launch Norwich and upper Yare	Hardley Launch Reedham, Chet and middle Yare	Burgh St Peter launch Oulton Broad and upper/middle Waveney	Breydon launch Breydon water, lower Waveney and Yare
Care and caution	27	10	2			2	3	2
Speed	1136	149	187	91	29	37	39	18
Other	9	1	4		52	23		18

Table 2

Written warnings

Written warnings	Wroxham launch	Irstead launch	Ludham launch	Ludham launch 2	Norwich launch	Hardley Launch	Burgh St Peter launch	Breydon launch
Care and caution		3					1	2
Speed	31	6	9	4	1	2	2	2
Other	6	15	3	1	2	5	2	
Special directions	26					1		

Table 3

Launch patrols

Launch patrols	Wroxham launch	Irstead launch	Ludham launch	Ludham launch 2	Norwich launch	Hardley Launch	Burgh St Peter launch	Breydon launch
Launch staffed by ranger	55	38	34	40	41	38	41	58
Volunteer patrols								
IRIS reports	5	8	5	9	6	2	3	14

Table 4

Broads Control total calls

Contact method	Number of calls
Telephone	5662
VHF	820
Total	6482

Appendix 2 – Ranger duties: total time allocated and actual days

Table 1

Broads Authority corporate duties

Work area	Actual days to date
Training	95.54
Broads Control	137.09
Team meetings, work planning	249.80
Partnership working	3.78
Assisting other sections	19.86
Billets and boatsheds	2.70
Launch – general	1.35
Trailers - general	0
Vehicle maintenance	1.69
Other equipment repair	1.62
Total	513.43

Table 2

Navigation duties

Work area	Actual days to date
Patrolling	539.97
Escorts	20.14
Prosecution files	17.43
Bankside tree management	27.77
Obstruction removal	6.96
Channel markers and buoys	1.01
Signs and boards maintenance	15.88
Adjacent waters	37.03
Reactive mooring maintenance	4.66
Total	670.85

Table 3

Conservation, recreation and countryside maintenance work areas

Work area	Actual days to date
Fen management	2.43
Lake, riverbank restoration	0.61
Invasive species control	3.99
Other conservation work	6.28
Pollution response	1.15
Visitor site maintenance	115.14
Public engagement	0
Public footpath work	3.78
Education work	0
Total	133.38

Team total up to 29 September 2020

- Navigation: 83%
- National Park: 17%

Appendix 3 – Sunken and abandoned vessels: position as at 08 October 2020

Description	Location found	Action	Notice affixed	Result
Motor Cruiser	River Yare Old River Thorpe.	Vessel sunk at owner's moorings	No	Not affecting the navigation
Motor Cruiser	Sutton/ Stalham Cut	Liaising with landowner, not in the navigation	No	Monitoring
Motor Cruiser	River Yare, Thorpe Marshes	Unregistered vessel new to system sunk	Yes	Removed
Motor Cruiser	River Yare, Thorpe Marshes	Sunken vessel	Yes	Speaking to owner to raise
Motor Cruiser	River Yare, Thorpe Marshes	No action taken by owner by deadline	Yes	Removed
Motor Cruiser	River Yare, Thorpe	Vessel new to system not registered	Yes	Vessel now registered
Yacht	River Yare, near Chet Mouth	Vessel sunk	No	Dealing with owner

Appendix 4 – Prosecutions dealt with in court for non-payment of tolls since 03 September 2020

Type of vessel	Vessel name	Fined	Costs awarded	Victim surcharge	Compensation
Motor Yacht	Miracle	£440	£150	£44	£227.95

Navigation Committee

22 October 2020

Agenda item number 10

Construction, Maintenance and Environment work programme - progress update Oct 2020

Report by Head of Construction, Maintenance and Environment

Purpose

To give an update on the Authority's management activities to maintain the public navigation, develop mooring facilities for public use and demonstrate the effective use of available resources.

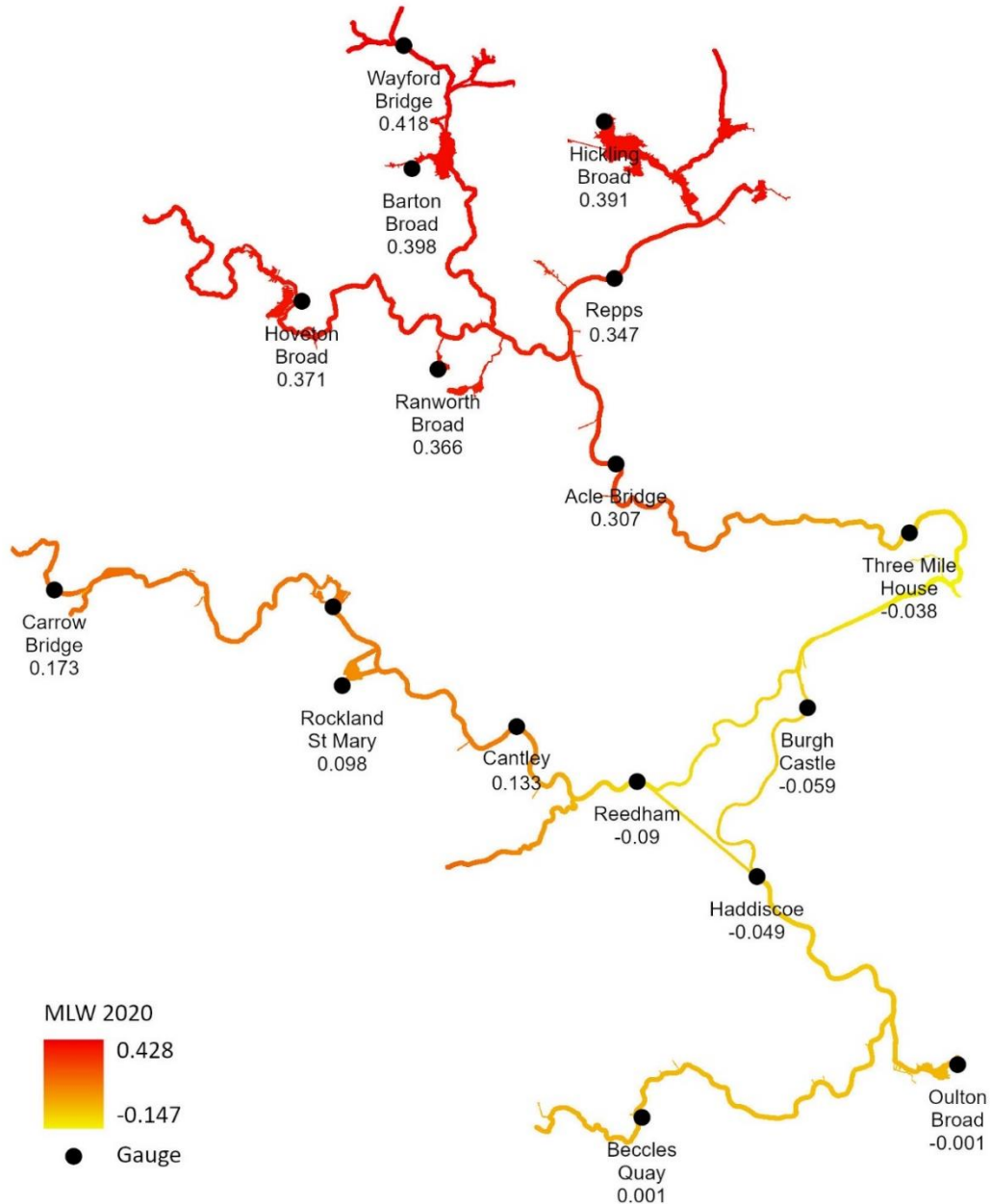
1. Maintaining water depths for navigation

- 1.1. The detailed breakdown in Appendix 1 gives the volumes for the annual dredging programme to the end of September 2020. To date, a total of 20,110 m³ of dredged sediment has been removed from the prioritised sites. This figure represents 49% of the programmed target of 41,400 m³ for 2020/21.
- 1.2. As of the end of September, the dredging of selected shoals in the River Yare between Trowse and Brundall has finished, generating a total of 8,570 m³ of sediment. 6,290 m³ of sediment from the Yare was brought to the Authority's licenced landfill site at Postwick Tip, as the sediment was shown to contain mercury at levels above the Environment Agency's permitted threshold of 1 mg/kg. The rest of the sediment (2,280 m³) was below this threshold and was able to be used to strengthen the floodbank at the Yare end of Rockland Short Dyke. A detailed topographic survey of Postwick Tip was carried out in February this year, when vegetation was at its lowest. This information will be essential in identifying where on the site future dredged sediment needs to be placed, and in calculating exactly how much more volume of dredged material can be accepted under the existing licence before the site needs to be capped and landscaped.
- 1.3. At Oulton Broad, the intended location for the bulk of the dredged sediment was Peto's Marsh. In the event, the material was split between the Authority's land on the other side of Oulton Dyke at Horseshoe Point and the habitat creation project at Peto's Marsh. The impacts of Covid-19 were felt in the ability of our ecological contractors and Natural England to gather the required evidence and issue the relevant licenses to enable the works in the presence of a very strong water vole population. A revised plan is now in place to ensure protection of the water voles on the site, with time extensions granted by all parties.

- 1.4. The forward dredging work for the winter season 2020/21 includes the completion of the reedbed creation area in Hickling Broad, funded by the CANAPE project. Dredging will focus on areas of Horsey Mere, Catfield Dyke and the River Thurne between Martham Ferry and Candle Dyke. A separate project will be conducted along Waxham Cut to achieve specification depth between Brograve Mill and the head of navigation. Finally, the Reedham end of Haddiscoe Cut is due for its regular clean out, with sediment being taken to a floodbank setback area at Raveningham.
- 1.5. Steady progress has been made on revising the model to assist our identification and targeting of areas where dredging is required to meet Waterways Specification depth. Environment Agency water level data spanning several decades and from multiple sites has been used to recalculate the mean low water (MLW) level throughout the Broads navigable system (see Fig. 1). This exercise was first carried out using data collated by Broadland Environmental Services Ltd (BESL) in 1994. This latest exercise builds on that earlier work and increases our confidence in the results, especially in the upper reaches of the navigable rivers. Early indications from the inclusion of the most recent 20 years' worth of data has generated some differences between the two modelled surfaces. It should be noted that variations between the modelled MLW levels have not been analysed to determine whether the variance is simply caused by the addition of new data, or whether there are trends over time. General patterns observed in the refreshed MLW level are that:
- MLW in the upper reaches of the northern rivers (Bure, Ant and Thurne) is generally higher (between 10-20 cm);
 - MLW in the rivers Yare and Waveney is the largely same as before; and
 - MLW in Breydon Water and the River Bure through Yarmouth is lower.

Figure 1

Location of EA gauge points and colour representation of the modelled mean low water (MLW) level. MLW at gauge points is in metres above Ordnance Datum (Newlyn).



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- 1.6. The impact of updating the model is that where MLW is now shown to be higher, the proportion of river length achieving Waterway Specification depth is going to be increased; that is, less dredging is required to meet targets. The converse is that where MLW is modelled as being lower, compliance with Waterway Specification is going to decrease; that is, more dredging is required to meet targets. Work is continuing to turn

this model development into dredge volumes for specific river reaches, and this information will be reported at the next meeting.

2. Maintaining safe public mooring facilities

- 2.1. Over a busy late summer season across the system, the maintenance team has been very active with reactive repairs at various 24-hour moorings. Keeping aggregate paths topped up and level, replacing broken or missing mooring posts, fixing gauge boards at bridges and replacing loose capping timbers have all featured.
- 2.2. We have completed drainage improvement works at Potter Heigham staithe within the past few weeks. The works have relieved pedestrian access and public health concerns, following the removal of an area of standing water that was home to a nuisance flock of feral ducks.

3. Our resources

- 3.1. Our approach for this year's round of apprenticeships has changed, due to the impacts of Covid-19 on the roll out of the revised Government apprenticeship scheme and the ability of educational providers to respond in time. As such, through review of an operations technician's post recruitment, we have been able to create a new role of trainee operations technician. All three of last year's apprentices, who completed their training and assessment in September, have taken up this role for a fixed one-year term.
- 3.2. Major refits were completed on two vessels, the tug Aberdour and the new welfare and support vessel Snipe. The tug has had its cabin and bows reshaped, a new hatch fitted, been blasted back to bare metal and repainted. Snipe had its hold redesigned and a new engine installed, and was repainted in the corporate livery.
- 3.3. Earlier this year, we started the transition to low carbon vehicles in our fleet of operational vehicles. We are adopting fully electric vehicles (PHEVs) within the plant and equipment team, whose vehicles are normally based at the Dockyard. Electric charging at the Dockyard is relatively simple, with the vehicles having all night to recharge before being used the next day. For the more mobile site-based operations technicians, electric charging options are more limited, so to move away from purchasing fully diesel vehicles we are adopting mild hybrid vans. As an example of the carbon saving from the use of PHEVs, the first 8 months' use of the Nissan e-NV200 electric van in the plant and equipment team was 990 KW/h of electricity to travel 6,100 miles. The diesel version of a similar sized Nissan van would have emitted (at 190 g CO₂/mile) 1,160 kg CO₂ for the same mileage. As the Authority's electrical supply comes from green sources, this saving can be included in the carbon budget. Given that over half of our total carbon emissions come from its operational activities, these types of reductions are needed to ensure the target of zero emissions by 2040 is met. As set out in the Climate Change action plan presented at the Broads Authority meeting in

July, the Authority's target for carbon reduction in 2020/21 is 15 tonnes CO2. By the end of the financial year, this vehicle will contribute about a tenth of this target.

4. Managing water plants

- 4.1. Water plant cutting has finished for this season, with just over 150 days of cutting time across the system. An additional location was cut to ensure navigational access across Bargate Broad and in the dykes connecting the site to the River Yare. As this location is a Site of Special Scientific Interest (SSSI), the cutting specification and area to be managed was agreed in advance with the landowners and Natural England. Whether this site needs to be considered in next year's cutting programme remains to be seen. Rangers will monitor the situation.
- 4.2. The report on the results of the experimental cutting of stoneworts in Hickling Broad is complete. The project steering group is assessing the results in terms of future management options, and intends to share the results and options with the Upper Thurne Working Group at their next meeting. Once this engagement with the Hickling Broad users is complete, we will bring an update to the Navigation Committee.

Author: Dan Hoare

Date of report: 08 October 2020

Background papers: [Climate Change Action Plan](#)

[Broads Plan](#) objectives: 2.1, 2.3, 3.1, 3.2, 4.2, 6.1

Appendix 1 – Dredging progress

Appendix 1 - Dredging progress

Project title	Active BA dredging weeks completed/ planned	Planned volume removed m ³	Actual volume removed m ³	Planned annual project cost ¹	Actual project cost
River Bure - COMPLETED South Walsham & Acle to Oby (Apr-May)	6/8	2,000	4,600	40,703	36,630
River Waveney - COMPLETED Oulton Broad to Peto's Marsh (May-Sept)	12/20	8,500	6,940	110,104	84,420
River Yare - COMPLETED Prioritised shoals between Trowse & Cantley (Jun-Sept)	16/15	6,400	8,570	114,507	82,320
River Thurne River Thurne sites & Catfield Dyke to Chara Bay (Oct-Feb) Plus 4 weeks for planting geotextile bags	0/19	8,000	0	150,664	9,230
River Yare Haddiscoe Cut to Raveningham (Nov-Feb)	0/20	8,500	0	106,990	875
River Thurne, Waxham Cut Sidecast (Jan-Feb)	0/7	6,000	0	26,862	670

¹ Project costs include staff time for all elements (pre-works ecological mitigation, site set-up, active dredging and site restoration), BA plant and budgetary expenditure (equipment hire, survey costs, contractor costs, mitigation works, materials & consumables, etc) within the reporting period.

Project title	Active BA dredging weeks completed/ planned	Planned volume removed m³	Actual volume removed m³	Planned annual project cost ¹	Actual project cost
Lower Bure Plough dredge (Mar)	Contractor	2,000	0	10,000	0
Site restoration Waxham Cut (Phase 1), Tyler's Cut	-	-	-	12,000	7,420
Site preparation Peto's Marsh, Carlton Marshes	-	-	-	16,000	7,190
Total	34/89	41,400	20,110	587,830	228,755