

Navigation Committee

08 June 2023

Agenda item number 11

Safety at Great Yarmouth

Report by Director of Operations

Purpose

Following the publication of the MAIB report into the fatal accident at Great Yarmouth and the Coroner's inquest into the resulting death, this report examines the safety issues at Great Yarmouth.

Broads Plan context

Theme C: Maintaining and enhancing the navigation

Recommended decision

To note the report.

Contents

1.	Introduction	1
2.	Diamond Emblem 1	2
3.	Additional Measures	3
4.	Role of the Broads Authority	4
5.	Analysis of Risk Factors and Mitigation Measures	4
6.	Financial implications	5
7.	Risk implications	6
8.	Conclusion	6

1. Introduction

- 1.1. It is imperative that all those involved in safety on the Broads waterways learn from any accidents that take place on inland waters and continue to drive-up safety standards. The Department of Transport's Marine Accident Investigation Branch (MAIB) examined the capsizing of the Breakaway V on the River Bure on 19 July 2003. The findings of this investigation were instrumental in the Broads Authority promoting a Private Bill

through Parliament to give it additional powers to licence hire boats and introduce compulsory third-party insurance and other safety measures.

- 1.2. While the Broads are generally a safe boating environment, tragically in 2020/21 there were 5 reported fatalities within our waterways: three related to boating, one of which was the subject of a MAIB investigation.

2. Diamond Emblem 1

- 2.1. The publication of the revised Code for the Design, Construction and Operation of Hire Boats (Hire Boat Code) was delayed at the request of the MAIB following the tragic events of Ferry Marina's hired vessel 'Diamond Emblem 1', on 19 August 2020, when a woman sadly lost her life at Great Yarmouth.

- 2.2. On 27 October 2020, Graham Wilson the Deputy Chief Inspector of Marine Accidents made the following recommendation to the Association of Inland Navigation Authorities:

2020/129 Revise the Code of Practice for Hire Boats to include:

"A requirement for in-water trial, before handover, to assess the competence of those expected to drive the boat, irrespective of their previous experience or length of hire of the vessel (3.3.4)."

The Association of Inland Navigation Authorities (AINA) and British Marine subsequently accepted that recommendation in full and the Hire Boat Code was amended accordingly.

- 2.3. At its meeting on 18 March 2022 the Broads Authority adopted the new Hire Boat Code in its entirety into its licensing conditions and included the requirement that all operators must be accredited under British Marine's Quality Accredited Boatyard scheme (from 1 April 2023).
- 2.4. In May 2022, the MAIB report was published with the following recommendations for the Broads Authority:

The Broads Authority is recommended to:

2022/114 Make the British Marine and Visit England Quality Accredited Boatyard Scheme a requirement of the Broads Authority's Hire Boat and Hire Operators licensing provisions in addition to its own internal inspection regime.

2022/115 Review its licensing conditions for hire boat operators to ensure that:

- Licences are only issued when a complete set of the required signed and
- dated documentation is submitted by the operators.
- An appropriate level of verification is conducted on a change of ownership.

of companies to ensure that the new owners are operating their vessels in accordance with the applicable requirements.

2022/116 Retain a copy of Declarations of Conformity and other associated information demonstrating compliance with the requirements of the Recreational Craft Directive (RCD) for all boats operating in their waters.

- 2.5. At the May 2022 meeting, the Broads Authority accepted the MAIB recommendation 2022/114 and incorporated the QAB into the licensing conditions for hire craft (powered and sail). Recommendation 2022/115 had already been accepted as this presented minor changes to our Hire Boat licensing processes.
- 2.6. In response to recommendation 2022/116, the Authority is committed to retaining RCDs for a seven-year period after a vessel enters into hire service. It will retain documentation associated with a boat's compliance with both the Boat Safety Scheme standard and the Hire Boat Code for the full period that the boat continues to operate in its waters, and the Authority considers that this provides an appropriate level of documentary oversight given the context and enforcement of these standards.
- 2.7. On 17 May 2023, the MAIB, stated that the Broads Authority had "*implemented appropriate actions*".
- 2.8. On 12 April 2023, the Norfolk coroner Yvonne Blake listed Miss Laura Perry's medical cause of death as "*multiple injuries and drowning, or as a consequence of entrapment beneath a boat following a fall into the water*". The Coroner heard evidence presented by Graham Wilson, Deputy Chief Inspector at the MAIB, who led the investigation. Mr Wilson stated that "*such a benign situation, but within the space of 44 seconds things went horribly wrong*".

3. Additional Measures

- 3.1. At the 20 November 2020 meeting, the Broads Authority meeting adopted a package of measures with the aim of further enhancing safety on the Broads' waterways. The package included:
 - Increased Ranger staff and patrols between April & November, maintaining a 7-day launch presence on the network to encourage safety.
 - Increased the Hire Boat Licensing Officer time from 1 day a week to 3 days.
 - A suite of free online instructional videos, developed in conjunction with the Broads Hire Boat Federation, RNLI, Maritime Coastguard Agency, and British Canoeing to provide safety advice and information.
 - An increase in the number of 'Super Safety Events' where random spot checks are conducted for vessels on our waters. These multi-agency events help educate boaters on a variety of safety issues from boat handling, and speed, as well as looking for vessel defects, non-wearing of life jackets and any hazardous boating issues.

- Developed closer ties with relevant organisations through regular meetings with the Broads Hire Boat Federation, the Royal Yachting Association, British Marine, and The Norfolk and Suffolk Boating Association, as well as Broads Beat, Maritime Coastguard Agency and the Drowning Prevention Forum.

4. Role of the Broads Authority

- 4.1. The Broads Authority (Pilotage Powers) Order 1991 confirms that the Broads Authority is a “Competent Harbour Authority” as defined in the Pilotage Act 1987, and as such the Authority falls under the requirements of the Port Marine Safety Code.
- 4.2. Unlike a port, the Broads Authority is designated a “Special Statutory Authority”, affording the area the same level of protection as a National Park, but with tailor-made legislation relating to navigation. The Authority, therefore, balances the navigational duties and powers of a harbour authority with the conservation and recreational duties and powers of a National Park authority. These duties and powers are principally set out in the Norfolk and Suffolk Broads Act 1988.
- 4.3. The Broads Authority, as Duty Holder for the Broads, has developed a Safety Management System (SMS) in accordance with the requirements of the Port Marine Safety Code taking cognisance of the advice in the Guide to Good Practice on Port Marine Operations.

5. Analysis of Risk Factors and Mitigation Measures

- 5.1. Passage through the Lower Bure and across Breydon presents challenges with the main risk factors being the strong tides, low bridges, and narrow channel. These factors are outside the Authority’s control. But there are several existing control measures to assist a safe passage, including:
 - Published information on the conditions and how to safely navigate this area (including broadcaster and on the website)
 - Signage in advance of the area from all directions
 - Specific safety video covering this area, available online.
 - Ongoing campaign to encourage lifejackets to be worn, especially in tidal areas.
 - Safety information specifically for this area is covered in hire boat handovers.
 - We have gauge boards at the bridges on the lower Bure and advanced gauge boards on the lower Bure, Turntide Jetty and Burgh Castle moorings.
 - Ranger patrols 7 days a week in the summer when the tide reduces the clearance on the lower Bure bridges to 7’6” or less and when there are adverse weather conditions (strong winds, fog, etc) between 8 am and 6 pm.
 - Yacht station is staffed 8 am to 8 pm in summer, to assist boaters on site and to answer telephone enquiries on tide times, advice on how to cross Breydon and

mooring availability at the yacht station. Yacht Station staff post tide times every day on Broads Authority social media channels.

- The Broads Authority ran specific training at Great Yarmouth Yacht Station in 2021 (it will be offered again in 2024) for hire company show-out staff, to familiarise them with the specific challenges presented on the Lower Bure and Breydon water. This course includes tuition from the RNLI, BroadsBeat and the Coastguard, explaining how their experience and assets are used to maintain safety.
- 5.2. The Authority's officers are continually reviewing safety in this area. Over the last few years and working with the Secretary of the Broads Hire Boat Federation, extra buoys have been placed, in addition to the posts, on Breydon to help keep navigators in the channel and we have put in a new yellow post and signage at Turntide jetty.
 - 5.3. The Authority has also been working with a company to look at electronic bridge height sensors but after reviewing this for a year the sensors are not currently able to provide an accurate enough reading to be able to rely on these instead of the current gauge boards. We will continue to look at this system as the technology improves. The current method of indicating bridge heights, whilst basic, is accurate and reliable.
 - 5.4. The conditions on the Lower Bure and Breydon mean that helms, along with any crew members, need to be alert when manoeuvring in this area. For most vessels, this is successfully managed (sometimes under the guidance of Quay Rangers or Rangers). The MAIB findings into the tragedy on Diamond Emblem 1 stated that an issue with understanding the dual controls experienced by the vessel hirers, and a failure to understand where the engine stop button was located, were contributory factors to this incident.
 - 5.5. There is no speed limit past Great Yarmouth Yacht Station; the 5mph limit signed at this location is advisory, although the byelaws do apply, and vessels would need to exercise care and caution when navigating in this area. The strong tide in this area means it can be necessary for boats to ensure they have enough speed to maintain steerage, if yacht station staff see anyone in difficulty, they will give advice as required.

6. Financial implications

- 6.1. Great Yarmouth Yacht Station provides a vital safe haven for vessels wanting to transit across Breydon water and staff are on hand from April to November to assist vessels to moor, provide daily tide times as well as answering telephone calls on bridge heights, weather conditions and mooring availability. The Great Yarmouth Yacht Station's gross expenditure (22/23, including staff salaries) was £120,367 (net costs £68,536).
- 6.2. The costs for patrolling Breydon are approximately £93,000 for 2022/23.
- 6.3. Last year (April 2022 to March 2023), the Breydon Rangers gave bridge advice to 385 vessels, 184 vessels were turned back due to being too high to pass the bridges, investigated into 6 bridge strikes, 34 groundings, issued 13 Memorandum of

Navigational Warnings and Breydon was closed 5 times due to adverse weather conditions.

6.4 The table below shows the maintenance costs for the last three years on the Lower Bure and Breydon.

Lower Bure and Breydon Water	2021/22	2022/23	2023/24
Lower Bure plough dredging (contractor)		£6,000	
Lower Bure gauge boards replacements (contractors)	£800	£1,860	
Lower Bure/Breydon in-house dredging	£8,250		£8,250
Breydon Channel marker post purchase	£35,122	£4,950	
Breydon Channel marker installation (in-house)	£16,402		£44,250
Total	£60,402	£12,810	£52,250

7. Risk implications

- 7.1. The Port Marine Safety Code establishes an agreed national standard for port marine safety and formalises the duties and responsibilities for safety and environmental protection within Broads Authority waters. The Code is applicable to all harbour authorities, and compliance is not optional.
- 7.2. The Code requires that all harbour authorities base their powers, policies, plans and procedures on a Formal Safety Assessment (FSA), and that they maintain a Safety Management System to control the risks that are identified to a level which is As Low As Reasonably Practicable (ALARP).
- 7.3. Under the Broads Authority FSA, the passage of Great Yarmouth & Breydon Water has its own risk assessment, highlighting the challenges this section of the system has, due to height restrictions from low bridges, fast tides, areas of shallow water, narrow channel, and the busy waterway. The Risk Assessment gives the passage of Great Yarmouth & Breydon Water a score of 5, meaning a medium risk.
- 7.4. The Broads Authority Formal Safety Assessments will be reviewed in the winter of 2023 by the Boat Safety Management Group. This review will consider the risks, cross reference the accident data, assess any new risks and look at mitigation measures. A report will be presented to the Navigation Committee on its findings.

8. Conclusion

- 8.1. As part of the Authority's commitment to enabling safe boating on the Broads, a Navigation Safety Policy has been developed which states the Authority will:
 - Maintain an effective Safety Management System to enable the Broads Authority to undertake and regulate marine operations in a way that safeguards the Broads, its users, the public and the environment.

- Monitor and manage the navigation of vessels within the Broads limits.
 - Consult widely with Broads Authority employees, Broads users and other relevant stakeholders in respect of navigational safety issues.
 - Ensure that an efficient, safe, and appropriate level of Pilotage is available in accordance with the Pilotage Act 1987.
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 - Place and maintain navigational marks where they will be of best advantage to vessels.
 - Disseminate any relevant navigational safety information to Broads users.
 - Regularly review the effectiveness of the Broads Authority legal powers, byelaws, and directions in respect of navigational safety.
 - Evaluate the safety performance of the Broads Authority through reporting systems contained within the Safety Management System.
 - Employ suitably qualified personnel and provide the necessary training to ensure that they are competent within the roles they are required to perform, and ensure sufficient resources are available to implement procedures and systems effectively.
 - Ensure the craft used within the Broads Authority have the required certification and are fit for purpose, and the crew are appropriately trained and qualified for the tasks they are likely to perform.
- 8.2. This policy will be reviewed on an annual basis with due consideration given to any changes to the operating environment, the organisation and legislation.
- 8.3. The Broads Authority invests considerable resources into the safety on the water and supplies additional measures on the Lower Bure and Breydon, to reflect the challenges this area can present.
- 8.4. The Broads waterways remain a safe and enjoyable location for recreational craft activities, but as with any waterborne activity, care, caution, knowledge and understanding of key aspects (weather, tide, bridges, passage, safety etc) needs to be considered prior to commencement.

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[Broads Plan](#) strategic objectives: Theme C: Maintaining and enhancing the navigation

Appendix 1 – MAIB report on the investigation of the fatal person overboard from the motor cruiser Diamond Emblem 1 at Great Yarmouth Yacht Station, River Bure, England on 19 August 2020
[Diamond Emblem 1 report published by Marine Accident Investigation Branch \(broads-authority.gov.uk\)](#)