

Broads Authority

10 May 2024

Agenda item number 12

Reviewed Safety Management System (SMS)

Report by Director of Operations

Purpose

The revised Safety Management System was reported to the Navigation Committee on 11 April and no comments were raised by members. The SMS is now reported to the Broads Authority who are asked to endorse the management system and accept version 8 of the SMS as the current document.

Broads Plan context

C4 – Maintain and improve safety and security and users' behaviour on the waterways.

Recommended decision

Endorse version 8 of the Safety Management System (SMS) as the current document.

1. Introduction

- 1.1. The Port Marine Safety Code is a nationally agreed standard for UK ports, harbours and marinas. Compliance with the PMSC is mandatory. The Code requires that all harbour authorities base their powers, policies, plans, and processes on a Formal Safety Assessment (FSA) and that they maintain a Safety Management System (SMS).
- 1.2. The Broads Authority under (Pilotage Powers) Order 1991 is designated as a 'Competent Harbour Authority' and as such the Authority falls under the PMSC requirements.
- 1.3. The PMSC provides the agreed national standards, and the Safety Management System details the arrangements put in place by the Broads Authority to explain how we meet those standards.
- 1.4. The PMSC and Safety Management System was audited during the 2023/24 audit programme and achieved a 'Reasonable Assurance'.

2. Safety Management System - Amendments

- 2.1. The PMSC and SMS is regularly selected under the audit programme for review and in addition to this the Safety Team and senior management within the Operations Directorate also carry out a regular review to ensure our systems are fit for purpose,

consider legislative changes as well as responding to incidents and accidents, a key aspect of a risk-based system.

- 2.2. As recommended by the PMSC, in October 2023 the Authority carried out the three-yearly review of the Formal Safety Assessment using the expertise of the Boat Safety Management Group. The BSMG reviewed 49 identified hazards and recommendations have been included within the latest version of the SMS. Please note that part of this review process is to identify new hazards which may need to be added, and at the October 2023 review, foil boarding, underwater drones and recreational/commercial diving were added.
- 2.3. A key aspect of our latest internal review of the SMS is the updated risk assessment carried out by Marico Marine, on the pilotage requirements for the Authority. ([Finding reported to the Broads Authority on 26 January 2024](#)). Following Marico Marine's report and the decision by the Broads Authority, the pilotage requirements within the SMS have been updated to reflect the case-by-case assessment now in place for commercial vessels over 24m.
- 2.4. The SMS is an overarching document which links to the plethora of policies, legislation, guidance and processes which make up the Broads Authority safety system. In the previous SMS (Version 7) the links to these supporting documents were contained within an appendix to the document. Now in version 8, these links are electronically added so the user can simply click and be taken to the latest and most up-to-date version. Embedded links mean the management system can easily be reviewed and new or updated links added.
- 2.5. Responsibility for risks is another key item within the SMS and one that has been picked out and specifically praised by the auditors; it is within the section titled Executive Structure. This section sets out how corporate responsibility for safety within the Authority works, providing details of a top-down approach and identifying key roles that have responsibility for safety and how they link back to the corporate structure. This includes the Chief Executive, Director of Operations, Head of Safety Management, Head of Ranger Services and the link back to Broads Authority Board members and the 'golden thread' throughout the organisation.

3. Financial implications

- 3.1. The risks of getting safety wrong, and not following established processes and procedures have far-reaching ramifications, with financial issues being just one. Therefore, safety and the effects of accidents and incidents upon the Authority are included on the Broads Authority Corporate Risk Register, carrying a risk rating of medium. A key mitigation factor to reduce these risks is adherence to the SMS.

4. Conclusion

- 4.1. Health and Safety does not sit in isolation within the Broads Authority, and as our risks are diverse and ripple throughout the Authority's work, we:

1. Have PMSC and SMS as an overarching active document to guide our safety practice.
 2. The PMSC is a standing item on the Broads Authority agenda.
 3. We support and assist the Boat Safety Management Group, which advises the Navigation Committee on marine safety.
 4. We maintain and regularly review the Safety Management System and its supporting documentation to ensure compliance with the PMSC, legislation and good practice.
 5. The Health & Safety Committee (Broads Authority staff) regularly meets to review incidents and near misses to identify trends and recommends improvements and mitigation to the Management Team to reduce accidents.
 6. Broads Control maintains incident logs (of those that are reported to the Authority) so we can build a picture of incidents plan safety campaigns and target key areas of improvement.
 7. We operate a 'near miss' system where all staff and volunteers are encouraged to share health and safety mishaps that could have been more serious in different circumstances, so the Authority can respond before an accident happens.
 8. Staff are well trained and maintain skills and competencies on a raft of plant and equipment so only properly qualified and experienced staff have access to and use our kit.
 9. We regularly carry out reviews (by the risk owners) on our Risk Assessments and method statements and we have Safe Systems of Work. These are updated as and when required. We carry out health surveillance for noise and hand-arm vibration to benchmark and keep staff safe and in good health.
 10. We operate a 'don't walk by' and 'lead by example' process so at every level our staff feel able to highlight and report health and safety issues via our senior or line management structures.
- 4.2. The fundamental contents of the Broads Authority Safety Management System are unchanged; the approach to pilotage has been updated to reflect how will manage commercial vessels over 24m entering the system. The formatting and inclusion of embedded links to key supporting documentation will assist when the SMS is reviewed, and any changes are required. Via audit and our internal review processes, I hope members are assured of the Authority's commitment to our health and safety systems and our culture of continuous improvement.

Author: Rob Rogers

Date of report: 12 April 2024

Background papers: Broads Authority – Pilotage Review, January 11 2024

[Broads Plan](#) strategic objectives: Strategic objectives: C4

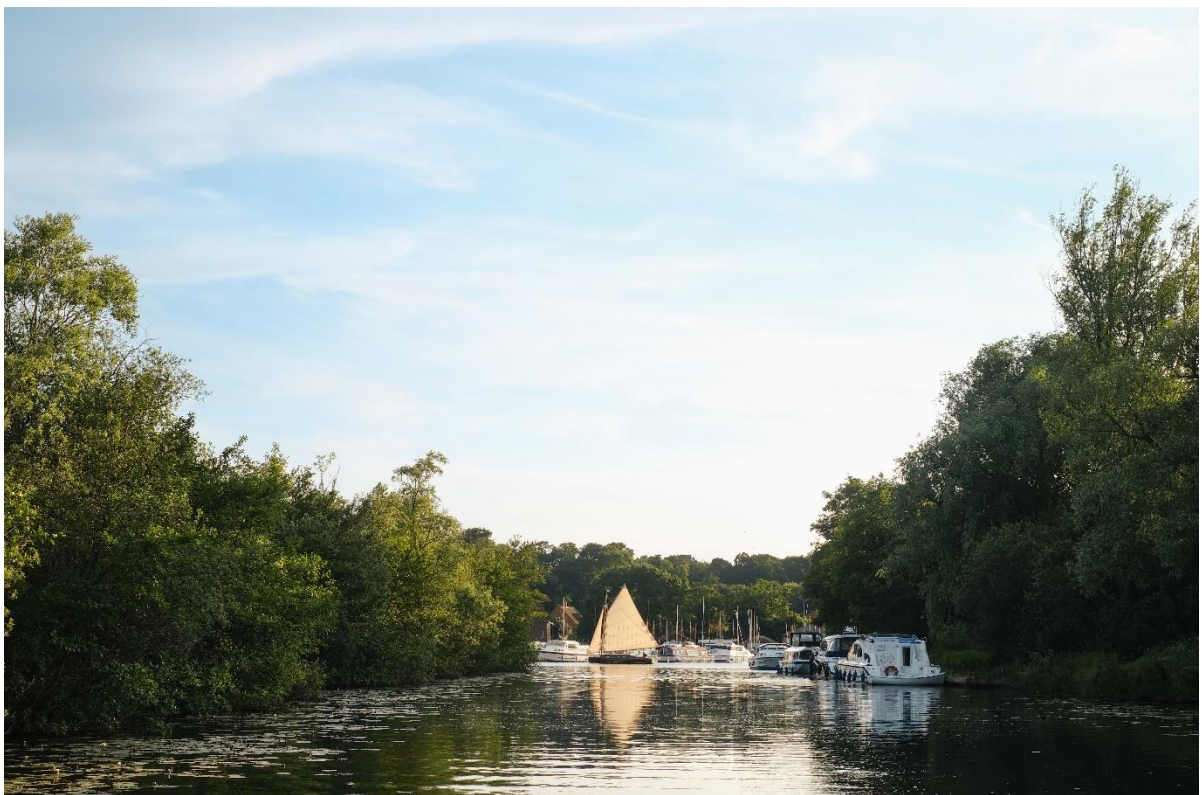
Appendix 1 – Safety Management System, Version 8

Appendix 1 - Safety Management System, Version 8



Safety Management System

Version 8.0



Broads Authority
Yare House
62-64 Thorpe Road
Norwich NR1 1RY

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Administration record

Issue	Modification	Approved
A	Early Draft for customer comment at Boating Safety Management Group	N/A
B	Developing Draft for Navigation Committee	N/A
C	Final Draft for customer comment	N/A
1	Formal issue	
1.1	Updated to include corrections	LIE
1.2	Updated for external consultation	LIE
1.3	Updated to include section 12 and updated hazard log	LIE
2.0	Updated to restructure document and Broads Authority Act 2009	LIE
3.0	Revised following re-organisation, implementation of BA Act, update to PMSC and the guide and updated hazard log	LIE
4.0	Revised to incorporate 2013 Marine hazard review and section added to cover land-based safety management	LIE
5.0	Revised to incorporate 2014 integrated hazard log	LIE
6.0	Revised to incorporate 2015/16 integrated hazard log update	LIE
7.0	Revised to reflect changes in the Code, implementation of external Audit findings, issue of the new Broads Plan 2017	LIE
8.0	Revised to reflect outcome of stakeholder hazard review, update on audit recommendations and progress against Broads Plan.	LIE

Report authorisation

Author: Linda Ibbitson-Elks (Head of Safety Management)

Checked: Rob Rogers (Director of Operations)

Executive summary

The Port Marine Safety Code (PMSC) [Port Marine Safety Code](#) was published by the Government in December 2012 and updated in November 2016. The Code establishes an agreed national standard for port marine safety and formalises the duties and responsibilities for safety and environmental protection within UK ports and harbours. The Code is applicable to all harbour authorities, and compliance is mandatory.

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 (SMS) to control the risks that are identified to a level which is as low as reasonably practicable (ALARP).

The Broads Authority (Pilotage Powers) Order 1991 [The Broads Authority \(Pilotage Powers\) Order 1991 \(legislation.gov.uk\)](#) confirms that the Broads Authority is a “Competent Harbour Authority” as defined by the Pilotage Act 1987, and as such the Authority falls under the requirements of the Port Marine Safety Code.

Unlike a port, the Broads Authority is designated a “Special Statutory Authority”, affording the same level of protection as National Park status, 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.

This Safety Management System (SMS) document details the arrangements put in place by the Broads Authority to ensure, as far as is reasonably practicable, the safety of those working on, visiting or using the Broads.

1 Introduction

1.1 Background

The Broads is Britain's largest nationally protected wetland, comprising rivers, broads, marshes, fens and carr woodland. There are over 200km of navigable waterways and over 25% of the area has a European designation, Special Area of Conservation or Special Protection Area, incorporating many National and Local Nature Reserves and Sites of Special Scientific Interest. The Broads is listed under the Ramsar Convention on Wetlands of International Importance and is home to a diverse variety of rare birds, animals and plants.

The Broads Authority was formalised as a statutory authority by the Norfolk and Suffolk Broads Act 1988 ([Norfolk and Suffolk Broads Act 1988 \(legislation.gov.uk\)](#)), and began operating as such in 1989, for the purpose of conserving and enhancing the natural beauty of the Broads, promoting the enjoyment of the Broads by the public, and protecting the interests of navigation.

The Authority is designated a "Special Statutory Authority", affording the same level of protection as National Park status, but with tailor-made legislation relating to navigation. The Authority therefore balances the duties and powers of a harbour authority with those of a National Park authority.

The Authority is funded by central government through National Park grant, as well as tolls paid by boat owners who use the Broads.

1.2 The Port Marine Safety Code

General Duties and Powers: For the purpose of this code, the duty holder should ensure that the harbour authority discharges its responsibilities to:

- **Safe and efficient port marine operations:** Having regard to the efficiency, economy, and safety of operation of the services and facilities provided as well as ensuring that appropriate resources are made available for discharging their marine safety obligations.
- **Open Port Duty:** Taking reasonable care, so long as the harbour or facility is open for public use, that all who may choose to navigate in it may do so without danger to their lives or property.
- **Conservancy duty:** Conserving the harbour or facility so that it is fit for use; this duty also includes providing users with adequate information about conditions in the harbour or facility.
- **Revising duties and powers:** The harbour authority should keep its powers and jurisdiction under review and take account of the various mechanisms, such as harbour orders, which are available to amend statutory powers in an authority's local legislation.
- **Environmental duty:** Exercise its applicable functions regarding nature conservation and other environmental considerations.

- **Civil Contingencies duty:** Take account of the organisation’s responsibilities under the Civil Contingencies Act 2004 including planning, preparing and co-ordinating responses to emergencies which threaten serious damage to human welfare, the environment or security.
- **Harbour authority powers:** Harbour authorities must be aware of their statutory powers and responsibilities under both primary and secondary legislation.

The Port Marine Safety Code ([Port marine safety code - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/port-marine-safety-code)) was published by the Government in December 2012 and updated in November 2016. The Code establishes an agreed national standard for port marine safety and formalises the duties and responsibilities for safety and environmental protection within UK ports and harbours. 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).

The Port Marine Safety Code is supplemented by a Guide to Good Practice on Port Marine Operations ([MCGA-Port Marine Guide to Good Practice NEW-links.pdf \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/publications/mcga-port-marine-guide-to-good-practice)) providing further supporting information and advice.

1.3 Purpose and scope of the Safety Management System

The purpose of this Safety Management System (SMS) is to document the arrangements put in place by the Broads Authority to ensure, as far as reasonably practicable, the safety of those using or working on the Broads.

The Broads Authority, as Duty Holder for the Broads, has developed this 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 (Noting the status of the Authority as a Special Statutory Authority, a pragmatic approach has been taken to the application of the Port Marine Safety Code.

As the SMS develops, a wide variety of stakeholders will be consulted with the aim of achieving a SMS, which is practical, workable, and supported. The Port Marine Safety Code relates to “marine operations”, which are defined in the Guide to Good Practice on Port Marine Operations Glossary as “marine operations have been taken to mean the moving, berthing and unberthing of ships and other marine craft within the limits and approaches of a harbour authority.” The code does not apply to areas already regulated by another body, such as the Health and Safety Executive (HSE), or the Maritime and Coastguard Agency (MCA).

This SMS not only relates to marine and navigational safety but also to safety relating to the land assets that the Broads Authority manages, typically footpaths and areas where the public have access. It does not address health & safety issues for Broads Authority premises.

The SMS covers members of the public using hired or privately-owned craft, as well as Broads Authority employees when working on the water.

1.4 Interfaces

The Broads Authority's area of jurisdiction has boundaries with two other authorities, as described below. The details of each boundary are discussed in section 3.

- a) **Great Yarmouth Port Company Ltd:** Peel Ports Marine Safety Management System MSM/001 Aug 2018 ([Marine Information | Great Yarmouth | Peel Ports](#)) describes their response to the PMSC.
- b) **Associated British Ports Lowestoft:** Associated British Ports - Marine Policy 2018 ([Associated British Ports | Lowestoft \(abports.co.uk\)](#)) describes their response to the PMSC.

1.5 Legislative Duties and Powers of the Broads Authority

The duties and powers of the Broads Authority are derived principally from the provisions of three Acts of Parliament.

Norfolk and Suffolk Broads Act 1988

The Norfolk and Suffolk Broads Act 1988 (c.4) ([Norfolk and Suffolk Broads Act 1988 \(legislation.gov.uk\)](#)) established the Broads Authority as the statutory harbour and navigation authority for the navigation area, as well as the planning authority for the area. It gave the Broads Authority the duty to manage the Broads for the purpose of:

- a) Conserving and enhancing the natural beauty of the Broads;
- b) Promoting the enjoyment of the Broads by the public;
- c) Maintain the navigation area for the purposes of navigation to such standard as appear to it to be reasonably required; and
- d) Take such steps to improve and develop it as it thinks fit.

It also gives the Authority power to “do anything which is necessary or expedient for the purpose of enabling it to carry out its functions.” Specifically, the Authority have the power to raise tolls for the use of the Broads by members of the public and by commercial shipping. The Authority also has the power to raise Byelaws, subject to a process of consultation and parliamentary approval. The Act does not give the Authority power to exclude a boat or person from the public waterways, providing their toll has been paid.

The Act also defined the composition of the Broads Authority, at the time this consisted of 35 members. This was later revised by the Alteration of Constitution of the Broads Authority Order 2005 ([The Norfolk and Suffolk Broads Act 1988 \(Alteration of Constitution of the Broads Authority\) Order 2005 \(legislation.gov.uk\)](#)), reducing membership from 35 to 21, in accordance with Department for Environment, Food and Rural Affairs (Defra) recommendations. The current composition of the Authority is described in Section 2.1.

Pilotage Act 1987

The Pilotage Act 1987 ([Pilotage Act 1987 \(legislation.gov.uk\)](#)) describes the duties and powers of a “competent harbour authority” with respect to the provision and authorisation of pilots. The Act states that a competent harbour authority is required to keep under consideration what pilotage services should be provided to ensure the safety of ships navigating in the harbour, and whether such pilotage should be made compulsory.

The Broads Authority (Pilotage Powers) Order 1991 ([The Broads Authority \(Pilotage Powers\) Order 1991 \(legislation.gov.uk\)](#)) confirms the Broads Authority’s status as a “competent harbour authority”.

Broads Authority Act 2009

The Broads Authority Act 2009 ([Broads Authority Act 2009 \(legislation.gov.uk\)](#)) received Royal assent in August 2009, the Act grants the Authority additional powers including:

- e) Giving of general directions to vessels.
- f) Giving of special directions to particular vessels.
- g) Impose a compulsory third-party insurance requirement on vessels registered with the Authority.
- h) Impose construction and equipment standards on vessels for the purposes of safety management.
- i) Regulate and give directions to water skiers.
- j) Removal of vegetation.
- k) Application of the public Health Acts Amendments Act 1907.
- l) Take responsibility for the Breydon Water and Lower Bure areas.

1.6 Other Relevant Legislation

Natural Environment and Rural Communities Act

The Natural Environment and Rural Communities (NERC) Act 2006 ([Natural Environment and Rural Communities Act 2006 \(legislation.gov.uk\)](#)) establishes a body known as Natural England, to replace the Countryside Agency and English Nature.

The Act modifies the first two purposes of the Broads Authority as follows (the modification is in bold):

- a) Conserving and enhancing the natural beauty, **wildlife** and **cultural heritage** of the Broads.
- b) Promoting **opportunities for the understanding and** enjoyment of the special qualities of the Broads by the public.

Health and Safety at Work Act

Under the Health and Safety at Work etc. Act 1974 ([Health and Safety at Work etc. Act 1974 \(legislation.gov.uk\)](#)), employers have a duty to ensure, so far as is reasonably practicable, the health and safety of its workers and other persons who may be affected by the Authority's undertakings.

In addition, the Management of Health and Safety at Work Regulations (1999) ([The Management of Health and Safety at Work Regulations 1999 \(legislation.gov.uk\)](#)) requires every employer to make a suitable and sufficient assessment of all the risks to the health and safety of workers and others arising at or from a work activity.

Byelaws

The Broads Act gives the Broads Authority the power to make Byelaws [Norfolk and Suffolk Broads Act 1988 \(legislation.gov.uk\)](#) in respect of areas which are owned by the Authority, or to which the general public have a right of access. The Authority is required to obtain the approval of the Secretary of State to make Byelaws and must consult with Natural England for Byelaws relating to the use of land.

Five sets of Byelaws have been made, covering Navigation, Vessel Registration, Vessel Dimensions, Speed Limits, and Boat Safety Standards. However, the Boat Safety Standards Byelaws has been revoked following the implementation of the Construction Standards provision in the Broads Authority Act 2009.

A byelaw was made by the East Suffolk and Norfolk River Authority in 1967 relating to control of pollution in the Broads by sanitary appliances on boats. In 1989, with the formation of the Broads Authority and the establishment of the Water Act, the continuing authority of this byelaw was confirmed by Statutory Instrument [The Rivers \(Prevention of Pollution\) Act 1951 \(Continuation of Byelaws\) Order 1989, Statutory Instrument, 1989 No. 1378](#) .

1.7 Navigation Safety Policy

The Broads Authority is the Competent Harbour Authority for the Norfolk and Suffolk Broads and serves to highlight the responsibilities that are allied to being a Harbour Authority and establishes a requirement for all Harbour Authorities to formalise their procedures.

The Broads Authority is committed to compliance with the Port Marine Safety Code and has developed a Waterways Code [Waterways codes \(broads-authority.gov.uk\)](#) outlining the steps the Authority will take to facilitate the safe and responsible operation of our harbour and demonstrate compliance with the Code.

As part of its commitment to facilitating the safe navigation and operation of vessels within the Broads, the Broads Authority has developed a Broads Safety Policy. It is the Broads Authority policy that it shall:

1. Develop and maintain an effective Safety Management System (SMS) to enable the Broads to undertake and regulate navigation operations in a way that safeguards the Broads, its users, the public and the environment.

2. Use risk assessment techniques to identify hazards and risks within the Broads and put in place suitable risk control measures to ensure that the risks identified are 'As Low as Reasonably Practicable' (ALARP) and that the appropriate emergency plans are in place and are practiced.
3. Monitor and manage the navigation of all craft and vessels within the Broads Limits.
4. Consult widely with the employees, Broads users and other relevant stakeholders in respect of navigational safety issues.
5. Ensure that an efficient, safe and appropriate level of Pilotage is available in accordance with the Pilotage Act 1987.
6. Undertake hydrographical surveys and maintenance dredging to ensure that the hydrographic regime is protected.
7. Place and maintain navigational marks where they will be of best advantage to vessels.
8. Disseminate any relevant navigational safety information to Broads users.
9. Regularly review the effectiveness of the Broads Authority's legal powers, byelaws and directions in respect of navigational safety.
10. Evaluate the safety performance of the Broads Authority through reporting systems contained within the Safety Management System.
11. Employ suitably qualified personnel and provide the necessary training to ensure that they are competent within the roles they are required to perform.
12. Ensure sufficient resources to implement procedures and systems effectively; and
13. Ensure the craft used by the Broads Authority have the required certification and are fit for purpose and the crews are appropriately trained and qualified for the tasks they are likely to perform.

This policy will be regularly reviewed with due consideration given to any changes to the operating environment, the organisation and legislation.

2 Roles and Responsibilities

2.1 The Broads Authority

The Broads Authority is composed of 21 appointed Members, in accordance with the Norfolk and Suffolk Broads Act 1988 ([Norfolk and Suffolk Broads Act 1988 \(legislation.gov.uk\)](https://legislation.gov.uk)), including representatives from local councils and Defra appointees. One Member is nominated as the Chairperson, and they are supported by a vice-chair. Collectively and individually, the Board has responsibility as "**Duty Holder**" as defined by the Port Marine Safety Code.

Although the Duty Holders delegate the operation of the harbour, including implementation of the SMS, to appropriate professional personnel, they may not delegate or abdicate their accountability for marine safety under the Port Marine Safety Code.

Table 2.1

Composition of the Broads Authority

Body to be represented	Members
Defra (Secretary of State Appointed)	10
Norfolk County Council	2
North Norfolk District Council	1
East Suffolk Council	1
South Norfolk Council	1
Broadland District Council	1
Norwich City Council	1
Suffolk County Council	1
Great Yarmouth Borough Council	1
Appointed from Navigation Committee	2

Members also sit on one or more of three Committees, which report directly to the Broads Authority. See section 4.2 for more details of the Committees.

Table 2.2

Membership of committees

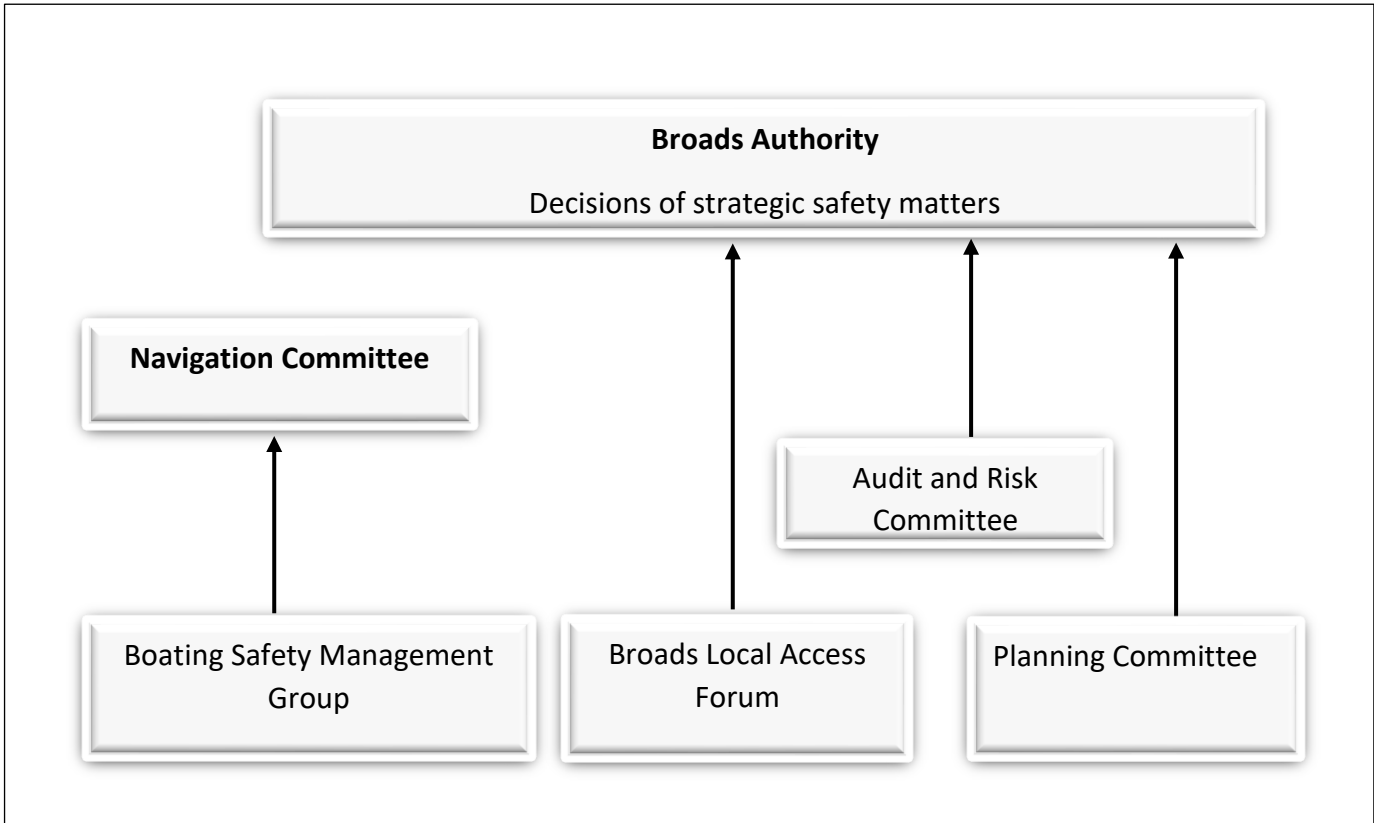
Committee	Authority Members	Appointed Members
Navigation	5	8
Planning	11	0
Audit & Risk	9	2

The Navigation Committee has a consultancy role and gives advice on waterways management and navigation issues, including safety. The eight appointed members represent relevant interests such as hire boat owners, private owners, and passenger boat owners.

The relationship between these committees, and other groups, is shown in 2.3 below.

Figure 2.3

Broads Authority Committee Structure



2.2 Executive structure

The Chief Executive (CE) has overall responsibility for operational matters following the strategic direction set by the Members of the Broads Authority. The CE is supported by the Management Team (three Directors), Governance Officers and the Monitoring Officer.

Chief Executive:

- To advise the Broads Authority on all matters relating to the Broads Authority’s responsibilities.
- To implement the Broads Authority policies and decisions.
- Responsible to the Broads Authority for the overall safety of operations and staff and for promoting a safety culture within the Broads.
- To ensure that adequate staff and resources are deployed to meet safety requirements within the Broads and to make recommendations to the members in this regard where necessary.
- To ensure that responsibility is properly assigned, accepted, and discharged at all levels.

- To ensure that matters concerning safety are properly and sufficiently communicated both internally and externally.
- To maintain and improve standards of operational training.
- To actively participate in audits of the Norfolk and Suffolk Broads Safety Management System.

2.3 The Director of Operations

The Director of Operations has responsibility for navigational safety across the Broads. The Director is supported by the Head of Safety Management, The Head of Construction, Maintenance & Ecology, and the Head of Ranger Services who is appointed as required by the Broads Act 1988 Part 2 Section 10(7), whose functions are set out in Schedule 5 Part 2 Sections 17, 18 and 19. [Norfolk and Suffolk Broads Act 1988 \(legislation.gov.uk\)](https://legislation.gov.uk)

The Duty Holder has appointed the Head of Safety Management to act as the “Designated Person” as defined by the Port Marine Safety Code. This person’s main responsibility is to determine, through assessment and audit, the effectiveness of the marine safety management system ensuring compliance with the code. The nomination as Designated Person is formalised in the post holders Job Description.

The Director of Operations is also responsible for the Dockyard operation, Maintenance and Construction teams, Ranger services, the Environment and Design Supervisor and the Rivers Engineer, all of whom have an impact on safety.

Director of Operations

To manage to work of the Operations Directorate in delivering the following:

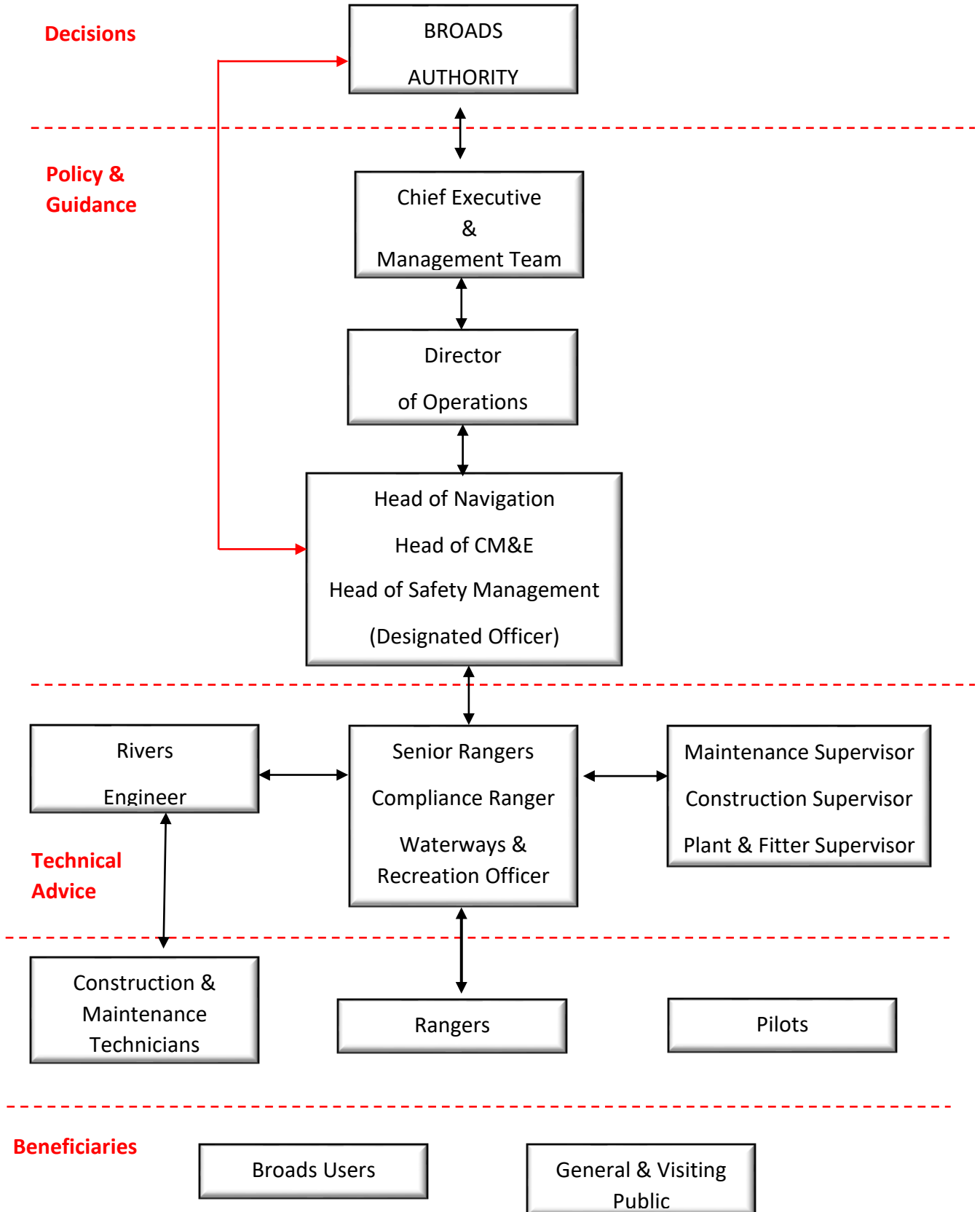
- The management of the safety of navigation within the Broads Authority’s executive area.
- To manage the operation of the Broads Control and that staff are appropriately trained to carry out the required duties.
- To develop and implement the Broads Emergency Plan including emergency exercises.
- The Health and Safety of the Pilots.
- To ensure that any safety reports received are investigated to an appropriate level and any resulting actions are implemented.
- The authorisation of Pilots.
- To ensure that byelaws, general directions and standing orders relating to navigational safety are kept under regular review.
- To provide advice to the Chief Executive and the Broads Authority on appropriate navigational safety issues as well as training of Broads Authority personnel.

- To disseminate safety information including Notice to Mariners to all Broads users and Broads Authority personnel in a timely manner.
- To ensure staff are aware of their duties and responsibilities placed upon them with due regard to the Safety Management System and to ensure they are trained appropriately to undertake their duties.
- To ensure that the Safety Management System is functioning as required through regular reviews of the system.
- To liaise and consult with external organisations, users and any other interested parties in relation to navigational safety issues.
- To ensure that staff are consulted and involved in any risk assessments being carried out.
- To modify operational procedures in a controlled manner.
- To implement Oil Spill Response Plans in conjunction with Navigation staff and ensure appropriate training.
- To ensure conservancy is maintained within the Norfolk and Suffolk Broads.
- To ensure Broads Authority vessels operating within the Broads have the required certification and the operators are appropriately trained and properly qualified for the tasks they are likely to perform about Health and Safety issues.
- To ensure that all moorings occupied by the Broads Authority are maintained and are in a safe condition.
- To actively participate in audits of the Norfolk and Suffolk Broads Safety Management System.
- To disseminate Health and Safety Information and legislation relating to navigation to all Broads Authority staff in a timely manner.

Figure 2.4

Organisational Roles and Responsibilities

The following chart presents the organisational structure relating to the Safety Management System.



2.4 Job descriptions

The following paragraphs provide the safety-related aspects of the job descriptions of the personnel defined above, including allocation of responsibilities under the Port Marine Safety Code.

Director of Operations

- a) As a member of the Management Team provide advice and guidance to the Chief Executive, other members of the Management Team and members of the Authority on all operational matters.
- b) Support, lead, facilitate, and manage the performance and development of all staff in the Operations Directorate so that they are effective in delivering the Authority's Business Plan and annual priorities.
- c) Provide guidance and advice to the Broads Authority and its committees and working groups on the implementation of all the Authority's plans and projects.
- d) Oversee and manage all the practical work of the Authority including dredging the navigation area and isolated broads, management of fens and sites of nature conservation importance, and sites and facilities which promote the enjoyment and understanding of the Broads.
- e) Programme the practical work of the Authority to make the best use of resources and deliver quality outcomes on time and within budget to deliver the Authority's objectives and plans.
- f) Support and guide the work of Ranger Services in patrolling, enforcing the Authority's byelaws, inspecting, and maintaining sites and facilities and providing guidance to the public.
- g) As a key contributor to the Harbour Master role and responsible for navigational safety of the Broads the post holder will direct and develop an approach to safety management that minimises risks to as low as reasonably practical across all the Authority's activities.

Head of Safety Management

- a) As the Authority's Health and Safety Advisor to be responsible for the introduction of regulation or best practice guidance, to coordinate and advise on all health and safety at work matters, to provide advice and guidance at the Authority's Safety Committee and to ensure, in conjunction with staff safety representatives, that the Authority complies with relevant health and safety legislation and that working practices and systems are safe and in accordance with good practice and regulation.
- b) Investigate, report and, where appropriate, make recommendations to the Authority on Occupational Health and Safety accidents and incidents in the Broads which relate to safety, including boat fires, explosions, personal injuries or accidents on or around

boats, serious navigational incidents and drowning or injuries sustained on Broads Authority property. To deal with the media in respect of incidents.

- c) Undertake the role of PMSC Designated Person with responsibility to provide independent assurance, directly reporting to the Authority that the marine safety management system is working effectively through the continued development and regular audit of a Marine Safety Management System for the Broads, pursuant to the Port Marine Safety Code.
- d) Work with private users and commercial concerns to ensure sustainable and safe use of the Broads as far as is reasonably practicable.
- e) Responsible for the development and regular review of an Oil Spill Contingency Plan for the Broads including involvement in the deployment and operation of oil spill clean-up equipment and materials.
- f) Responsible for the introduction of regulation or best practice guidance appropriate to Broads recreation which includes developing and providing advice and assistance to interested parties.
- g) Responsible for the assessment and licensing of Hire Boats and Small Passenger Boats on the Broads.
- h) Responsible for policy development, organising, planning, implementation monitoring, review, and audit of corporate Health & Safety Systems.
- i) Conduct external consultations on statutory requirements relating to waterways safety management issues and implementation of Broads Authority legislation.
- j) Responsible for staff training records and to ensure that all staff are adequately trained to discharge the Authority's duties under health and safety legislation, including the delivery of in house and external training and to train staff where appropriate.
- k) Liaise with other organisations/individuals concerned with the safe use of the Broads including the waterways, particularly in connection with technical, operational, and general safety matters.
- l) Maintain awareness of current and evolving health and safety, port, waterways and environment legislation, regulations and best practice and ensure that the Authority fully and properly discharges its responsibilities in the context of its Health and Safety, marine operations, and its other regulatory functions.

Head of Ranger Services

- a) Oversee the work of the Ranger Team and volunteers providing formal line management to the Senior Rangers, direction on training, and guidance on the Team's day to day management. To ensure that conditions are present for the safe, orderly, and environmentally sustainable use of the Broads for recreational purposes and that

the Authority's byelaws and regulations are observed and where appropriate enforced. Liaise with the Rivers Engineer to ensure that contractors or others seeking to undertake works in or affecting the navigation area are advised of the Authority's requirements concerning navigation and river safety.

- b) Develop and monitor a programme of work to record the condition of sites and visitor facilities in the Broads and ensure Rangers carry out minor works to improve access, biodiversity, and public safety, such as tree and scrub management, maintenance and minor improvements to ensure the locations are kept in good order.
- c) Undertake the duties and responsibilities of Navigation Officer as defined in the Norfolk and Suffolk Broads Act 1988. Give navigational directions to vessels as appropriate, including for towing. Grant permissions for events and regattas under schedule 5 of the Norfolk and Suffolk Broads Act 1988. [Note: This consists of the ability to give directions to specific vessels in relation to navigation, mooring, loading/unloading, etc. Broads Act, Schedule 5, Paragraph 18]; The duties include inclusion on the roster as required, and provision of out of hours emergency cover.
- d) Progress prosecutions where appropriate, maintain the required records and discharge the functions of Officer in Charge for the purposes of Criminal Procedure and Investigations Act 1996. Ensure that the Ranger Team is properly trained in the processes of prosecutions and evidence gathering. Investigate and record reported incidents, liaising with the Head of Safety Management concerning the investigation of incidents, particularly those of a technical nature.
- e) Ensure that operational bases, vehicles, vessels, and other equipment are kept secure, in good and safe repair and that defects are promptly rectified. Ensure that Authority assets including signage, countryside furniture and moorings are kept in good and safe condition and that defects are noted and reported, and that prompt action is taken in accordance with asset management systems to mark hazards and obstructions. Ensure that sites operated by the Authority are used in accordance with the Authority's policies and that instances of unlawful use are promptly dealt with, and that abandoned and sunken vessels are dealt with according to the Authority's powers and procedures.
- f) Liaise with the Police, Coastguard, and other emergency services to ensure that the Authority's personnel and resources are appropriately used in emergency situations. Take part in emergency exercises ensuring that the Authority takes a proper role in exercises and emergency response training. Prepare emergency/major incident plans. Assume the role of designated person under the Oil Pollution Preparedness, Response and Co-operation (OPRC) regulations [Note: This is not to be confused with the "Designated Person" identified by the Port Marine Safety Code] Provide leadership and assume responsibility in incident or emergency situations including oil spill incidents. As appropriate, to be included in the emergency call-out list provided to police, coastguard, and emergency services and, in the event of an incident, to attend and help mobilise the Authority's response.

- g) Liaise with a wide variety of external organisations, where necessary representing the Broads Authority at meetings.
- h) Negotiate and supervise the Broads Beat annual agreement to ensure optimum specialist policing liaison, support the work of the Local Access Fora (Norfolk and Suffolk) by undertaking agreed priority route management, and maintain close links with other partners as required.
- i) Ensure that health and safety best practice is followed by the Ranger Team and their volunteers including the routine and monitored production of risk assessments.
- j) Ensure that volunteers working with the ranger team are trained and supported so that they can contribute effectively to the Authority's aims and objectives and that their health and safety is protected and receive a worthwhile experience.
- k) In order to promote a greater understanding of the special qualities of the Broads and raise awareness about safety matters arrange with the Communications Team appropriate attendance and support at events and schools, in accordance with corporate priorities and the agreed annual programme of events.

2.5 Training cycle

The Port Marine Safety Code refers to the National Occupational Standards for Port Marine Operations Port [Operations National Occupational Standards \(NOS\) | Port Skills and Safety](#), and states that the training and competence of officers with safety duties should be in compliant with these standards, or demonstrably equivalent to them.

The Authority has a Training and Development Policy, **Learning and Development Policy** which demonstrates the Authority's commitment to identifying and providing an appropriate level of training and development for all staff employed by the Authority.

The Authority has a Marine Operations Training Policy [Annex L Port Marine Operations Training Policy](#) which details training needs following a formal skills matrix analysis of both safety management personnel, field personnel and those personnel with direct responsibility from their collective roles as Harbourmaster. This policy allows for the review of compliance and equivalence qualifications or experience with the National Occupational Standards for Port Marine Operations.

The Authority has also published a [Health and Safety Policy](#).

Its objective is as follows:

"The Broads Authority ("the Authority") recognises and accepts its responsibility as an employer for providing a safe and healthy workplace and working environments for all its employees and volunteers and others affected by its undertakings.

The Authority will take such steps as are reasonably practicable to meet this responsibility, including the provision of funds and resources, paying responsibility to the provision and maintenance of:

- a) plant, equipment and systems of work that are safe and without risk to health.
- b) safe arrangements for the use, handling, storage and transport of articles and substances.
- c) sufficient information, instruction, training and supervision to ensure that all employees are aware of the hazards to their own health and safety at work, and of the necessary measures which should be taken to protect against these hazards, and which would contribute positively to their own health and safety at work.
- d) a safe place of work, and safe access to and egress from it.
- e) a healthy working environment.
- f) adequate welfare facilities and arrangements; and
- g) a review and monitoring procedure to ensure the effective management of health and safety across the Authority.”

The following minimum standards are set for those working in the field:

- a) all staff working in the field are expected to undertake appropriate first aid training and manual handling training.
- b) all Broads Authority staff who are required to operate boats (including workboats, launches and public trip boats) must hold a RYA (Royal Yachting Association) Level 2 Power Boat qualification at a minimum or an MCA Boatmaster licence.
- c) officers responsible for fire safety and emergency procedures must have undertaken fire safety awareness training.

The Authority has also formed a Safety Committee, the role of which is to ensure that the Authority’s safety policy is implemented effectively, that safety standards are maintained and to provide a forum whereby matters relating to health and safety at work can be discussed.

2.6 Planning and implementing

As required by the Norfolk and Suffolk Broads Act 1988, the Authority has produced a five-year plan, known as the “Broads Plan” [Broads Plan 2022 - 2027 \(broads-authority.gov.uk\)](https://broads-authority.gov.uk).

The Broads Plan is a plan for the Broads, not a Plan for the Broads Authority.

The Broads Plan is the key management plan for the Broads. It sets out a long-term vision and guiding actions for the benefit of the natural and cultural environment, local communities', and visitors. The plan is reviewed and updated every 5-7 years. The current Broads Plan was adopted in 2022 and covers the period 2022-2027. While the Broads Authority is responsible for its production, it is a partnership plan for the Broads, and its success very much depends on a common vision, strong partnership working and the best use of shared resources.

Theme C4 of the current Plan ([Theme C: Maintaining and enhancing the navigation \(broads-authority.gov.uk\)](https://broads-authority.gov.uk)) identifies several objectives related to safety management. These objectives are broken down into sub-objectives which are set out in the plan.

3 Navigation area overview

3.1 Introduction

This section of the SMS defines the geographical boundaries of the navigation area and the limits of jurisdiction of the Broads Authority, identifies channels and berths within the area, describes meteorological data relevant to the navigation area, and identifies sites subject to various environmental designations.

3.2 The navigation area

The navigation area under the responsibility of the Broads Authority is defined in Section 8 of the Norfolk and Suffolk Broads Act 1988. [Norfolk and Suffolk Broads Act 1988](#)

The Broads Act defines the navigation area as all navigable stretches of the rivers Bure, Yare and Waveney and their tributaries (rivers Ant, Thurne and Chet), including Oulton Broad, Haddiscoe New Cut, and the navigable part of the river Wensum in Norwich upstream of its confluence with the Yare.

Interface with Great Yarmouth

The Broads Act excludes those areas which are the responsibility of the Great Yarmouth Port Authority under the Great Yarmouth Port and Haven Acts and Orders 1866 to 1986.

The navigational responsibilities for Breydon Water and the lower reaches of the Yare, Bure and Waveney have been transferred from Great Yarmouth Port Authority to the Broads Authority in June 2012 and therefore this SMS now includes this area.

Interface with Lowestoft

At Lowestoft, Mutford Lock, at the eastern end of Oulton Broad, marks the boundary with Associated British Ports Lowestoft. Mutford Lock had historically been in the ownership of Associated British Ports Lowestoft (ABP).

A harbour revision order [Transfer of Mutford Lock Harbour Revision Order 2021 \(legislation.gov.uk\)](#) transferred the ownership and management responsibility of Mutford Lock from ABP to the Broads Authority in February 2021.

Mutford Lock is operated by East Suffolk Council on behalf of the Broads Authority. The lock is used almost exclusively by private craft – there is little commercial traffic, and hire craft are not permitted to pass through the lock.

Figure 3.1

Map showing the Broads Navigation Area



3.3 Principal uses

Unlike a commercial port, the Broads is home to a wide variety of river traffic. Commercial freight traffic is almost non-existent. The following represents the principal uses of the Broads:

- a) Day hire craft (self-drive).
- b) Larger motorised hire craft, typically hired out for a week (self-drive).
- c) Guided tour boats - approximately 8 MCA-certified passenger craft offering guided excursions.

- d) Small passenger boats (less than twelve passengers).
- e) Private motor boating.
- f) Sailing - including hire self-drive, private and tuition.
- g) Water skiing - in specific areas and at specific times as designated under the 2009 Act.
- h) Rowing, Canoeing and stand-up paddle boarding.
- i) Power Boat racing (Oulton Broad only).
- j) Angling, either from the bank or from a moored craft.

These activities are mostly seasonal, with most activity taking place between April and October; however there remains a lower level of activity over the winter months.

3.4 Meteorological data

The Guide to Good Practice on Marine Port Operations recommends that the authorities should make available information about current and forecast meteorological conditions. Although the effects of the weather are likely to be less significant on an inland waterway than a port, there can be an impact, especially on large bodies of water such as Breydon Water.

Some harbour authorities have dedicated weather stations or purchase customised weather information from the Met Office. Given the sheltered inland nature of the Broads and the geographic spread of the area, it is suggested that this level of detail would be inappropriate for the Broads.

Publication of forecast tidal information is currently carried out by the Authority (annually in a booklet and a visitor newspaper, and weekly on the Broads Authority website).

The Authority has developed a weather forecast service page (Norfolk) weather - Met Office

Figure 3.2

Broads Authority Weather Forecast Policy

Broads Authority Weather Forecast Policy

In accordance with the Port Marine Safety Code, the Broads Authority has a duty to make available timely information on prevailing and forecast meteorological conditions.

It is the Authority's policy that it will:

- a) Maintain a link to a nationally recognised weather forecasting agency, from the Broads Authority website, the forecast from the link will include general weather conditions, wind speed and direction including weather warnings for the local area.
- b) Maintain forecast weather data information at Broads Authority yacht stations and visitor centres and through Rangers.
- c) Promote the Environment Agency flood alert system on the website.
- d) Ahead of forecast weather warnings or flood events, send out information on social media alerting boaters to some of the precautions to take, such as not mooring under trees in high winds and checking moored vessels after heavy rainfall.
- e) Keep this policy under review as part of the planned monitoring and auditing of the Safety Management System Action Plan.
- f) Act in an appropriate and timely manner to address and perceived shortfalls in this policy.

3.5 Navigation channels and berths

Several areas are currently marked, either by posts or buoys which define the navigable channels in accordance with the Waterways Specification, including across shallow Broads, examples being Rockland Broad, Hickling Broad and Breydon Water. The marks are checked by the Rangers and a report is issued when works are required. The works are programmed, either using the Broads Authority maintenance team or contractors as appropriate.

The only commercial berth within the navigation area is the quay at the sugar beet factory at Cantley. This quay is owned and managed by British Sugar; however, it has been over 10 years since a vessel has used this berth. There are many staithes around the Broads system, the historic use of these staithes was for loading and unloading of goods to service local communities, however very few of these staithes are now used for this purpose.

The Broads Authority Act 2009 includes a provision for the Authority to designate areas for the loading and unloading of any goods.

There are many public and private moorings throughout the Broads. Moorings are discussed under section 8.3.

3.6 Traffic monitoring

Given the large and geographically dispersed nature of the Broads, there is no Vessel Traffic System (VTS) or similar traffic monitoring system. Traffic is monitored daily by the Head of Ranger Services and a team of Rangers, who maintain regular patrols across the area, using Broads Authority launches.

Some private vessels and the larger trip boats communicate by VHF radio. Hire boats and small vessels do not have VHF radios. Hirers will generally call on mobile phone, if necessary, e.g., for bridge opening, problems with their boat, or to contact the emergency services.

3.7 Environmentally sensitive sites within the Broads

The Broads is one of Europe's finest and most important wetlands for nature conservation. It includes designated sites for nature conservation, consisting of 28 Sites of Special Scientific Interest (SSSIs), which cover 24% of the Broads executive area. One-third of SSSIs are also designated as National Nature Reserves (NNRs). Virtually all SSSIs also form part of the National Site Network; the network of European sites within the UK (Conservation of Habitats & Species Regulations 2017 (as amended)) [Conservation of Habitats & Species Regulations 2017 \(legislation.gov.uk\)](#).

The Broads, apart from having many designated sites for nature conservation, is also important for wildlife throughout its area, with land and water managed for both biodiversity and landscape. The whole area forms an inter-connected wetland system and hydrological connections between the waterways, fens and grazing marsh dykes can often mean that pollution and other impacts in one part of the wetland affects a much wider area.

Link to [Broads Biodiversity and Water Strategy](#)

Figure 3.2

Network of National Nature Reserves (NNRs) and Special Site of Scientific Interest (SSSIs) in the Broads

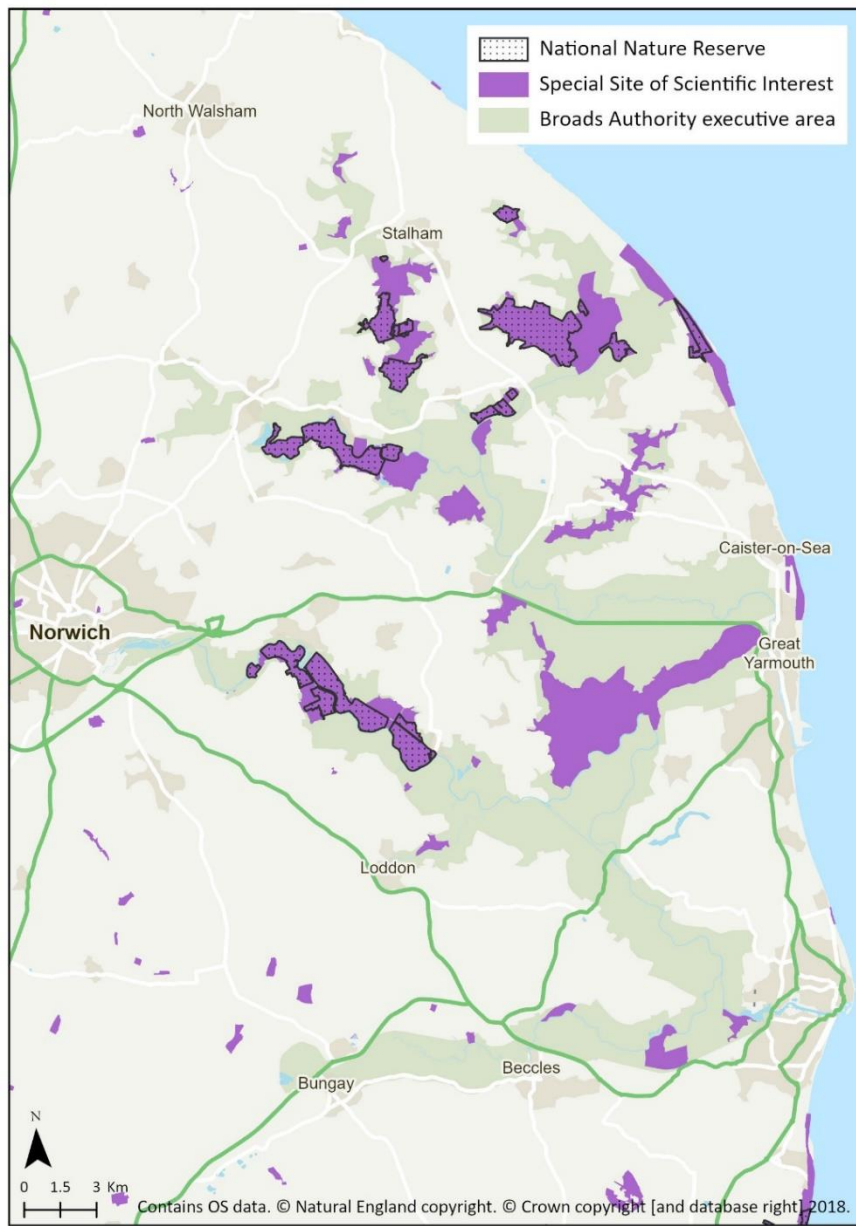
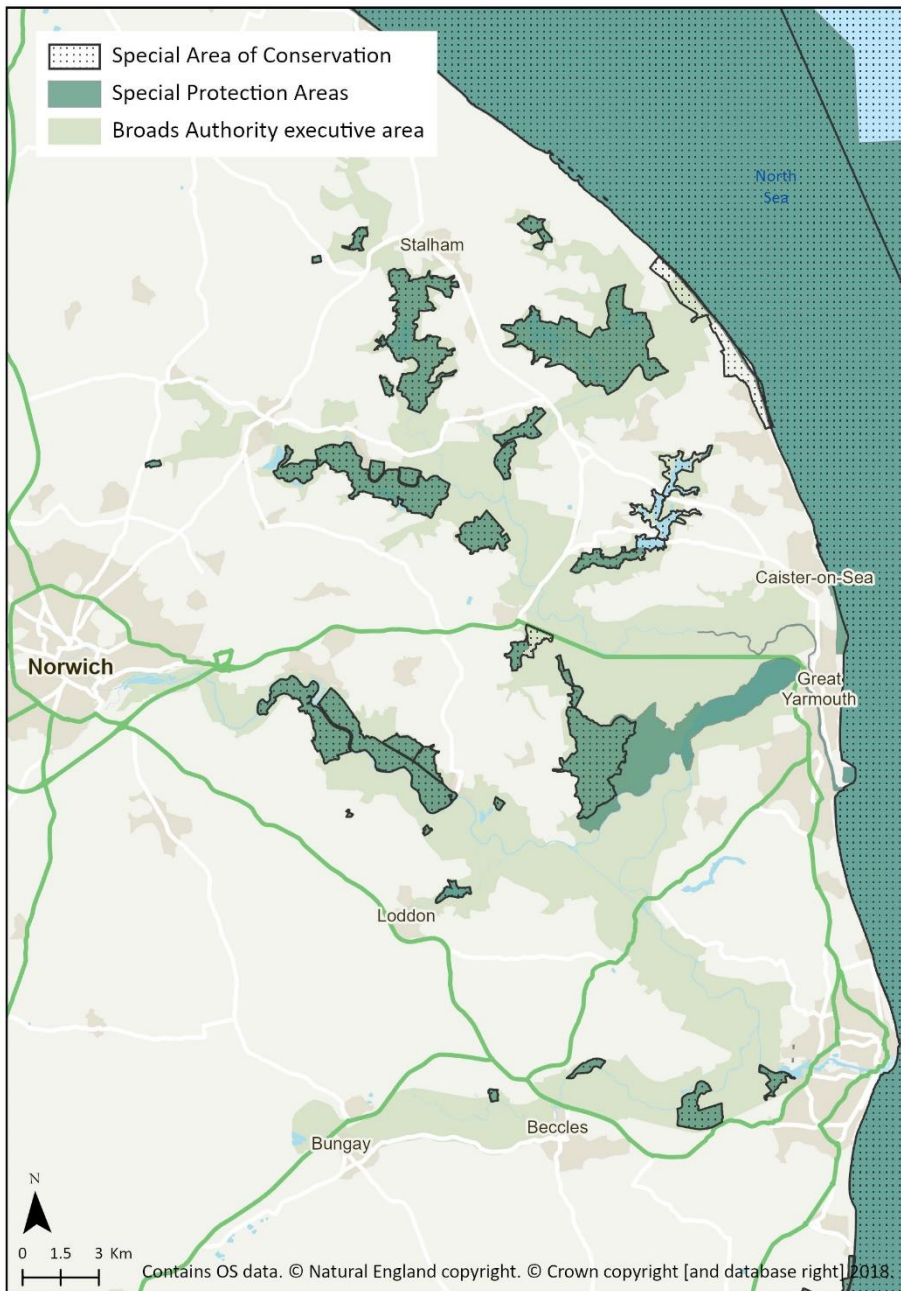


Figure 3.3

SSSIs that are also of European Importance



4 Consultation

4.1 Introduction

The implementation of the Safety Management System will affect a wide variety of stakeholders.

This section of the SMS describes the mechanisms in place for consultation, and how consultation will be handled for this SMS.

4.2 Navigation Committee

The role of the Navigation Committee is to reflect the position as set out in the Broads Act. Its purpose is to comment on and advise the Authority on matters relating to the strategic management of the waterways. The Navigation Committee is the consultation forum for issues relating to protecting the interests of navigation, which includes safety issues.

Members of the public can attend and give notice to raise questions at meetings of the Navigation Committee, or at any of the Authority's formal committee meetings (see 2.1).

The membership of the Navigation Committee is defined in the Broads Act, and consists of thirteen members as follows:

- a) Five members of the full Authority.
- b) Two persons representing the interests of hire boat owners.
- c) One person representing the national interests of private boat owners.
- d) One person representing the local interests of private boat owners.
- e) Two persons representing the interests of passenger and goods shipping.
- f) One person representing other interests.
- g) One person appointed by the Great Yarmouth Port Authority.

The Committee receives advice from officers of the Authority who also attend.

4.3 Boating Safety Management Group

The Boating Safety Management Group was established to evolve in detail the policy and processes on which the SMS is to be based.

The Group is chaired by a member of the Authority (as a representative of the Duty Holders), with membership including the Director of Operations, the Head of Safety Management ("Designated Person"), and Head of Ranger Services, the membership of the Group also includes representatives from the Navigation Committee and outside bodies with a particular interest and involvement in boating safety issues.

The Group reports directly to both the Full Authority and the Navigation Committee on a regular basis.

The Terms of Reference for the Group were reviewed in 2012 and have been approved by the Authority. The terms of reference provide the formal nomination of the “Designated Person”.

The Group has a supervisory role, in consultation with relevant interests, for the implementation and maintenance of this Safety Management System.

4.4 Broads Local Access Forum

The Broads Local Access Forum is a statutory advisory body to provide guidance and advice to relevant authorities on the improvement of public access to the countryside of the Broads Executive Area and to contribute to opportunities for the enjoyment of the area. The Forum also acts as a reference group to offer advice and comment on the Broads Authority's work relating to access land, exclusions, restrictions, and the appointment of access wardens on land where new rights of access exist.

4.5. SMS stakeholders

Below is a list of stakeholders who should be consulted about various elements of the SMS.

Other Harbour Authorities

- Great Yarmouth Port Company
- AB Ports – Lowestoft

Statutory/legislative bodies

- Environment Agency
- Defra
- Natural England
- Maritime and Coastguard Agency
- Association of Inland Navigation Authorities

Special interest groups

- Broads Hire Boat Federation
- British Water Ski and Wakeboard
- British Marine
- Inland Waterways Association
- Association of Pleasure Craft Owners
- Norfolk and Suffolk Boating Association
- Royal Yachting Association
- British Canoe Union
- British Rowing

Local councils

- Norfolk County Council
- Suffolk County Council
- North Norfolk District Council
- East Suffolk Council
- Broadland District Council

- Great Yarmouth Borough Council
- South Norfolk Council

5 Conservancy

5.1 Introduction

This section of the SMS describes the issues relating to conservancy of the navigation area of the Broads and describes the Authority's approach to managing these issues.

5.2 Responsibilities

The Port Marine Safety Code states that the harbour authority has a duty to conserve the harbour so that it is fit for use.

The Broads Act gives the Authority the duty to maintain the navigation area for the purposes of navigation to such standard as appears to it to be reasonably required and take such steps to improve and develop it as it thinks fit.

5.3 Management of Hydrography

Comprehensive and repeated hydrographic surveying has been carried out since 2005. This monitoring covers all areas of the public navigation managed by the Broads Authority and is repeated no less than every five years.

The Authority is duty bound to provide hydrographic information to its port users. However, the United Kingdom Hydrographic Office (UKHO), the organisation who prepare admiralty charts, do not require the Authority to publish the data to them. UKHO do not prepare charts for inland areas which have such infrequent commercial traffic and where the harbour authority would provide a mud pilot in such rare events.

The Authority publishes up to date hydrographic data for the whole of the Broads area on its website, this data includes notes on navigating each area of the Broads network.

A Waterways Specification has been drawn up identifying the recommended channel depths (depth below mean low water) for all areas of the Broads. The various depths and mapping of the Waterways Specifications are described in the Waterways Management Strategy ([Waterways Management Strategy \(broads-authority.gov.uk\)](https://broads-authority.gov.uk)). This strategy and associated action plan also sets out the dredging and waterways maintenance regime across the Broads.

The Broads Plan 2022-27 sets out objectives to reduce the sediment input into the Broads river system at a catchment wide level. The objective also seeks to sustainably re-use or dispose of dredged material. The Authority is working with local landowners and farmers on management techniques to reduce run-off from fields. And in recent years has pioneered the reuse of sediment for bank re-creation and conservation benefit.

The Rangers respond to specific instances of sedimentation or shoaling reported by users of the Broads and will mark shallow areas with buoys or posts.

The Authority has developed a Hydrographic Policy see figure 5.1.

Figure 5.1

Broads Authority Hydrographic Policy

Broads Authority Hydrographic Policy

In accordance with the Port Marine Safety Code, the Broads Authority has a duty to maintain safe navigable channels throughout its area of operation.

It is the Authority's policy that it will:

- a) Maintain a 5-year programme of hydrographic surveys, conducted in accordance with Broads Authority specification, of the navigation area, covering the navigable extents of the Broads.
- b) Use the outcome of the surveys to prioritise and inform the dredging programme detailed in the Sediment Management Strategy Action Plan, in accordance with the waterway's specification.
- c) Mark safe channels in areas of danger, but with due regard for conservation of the natural beauty of the area.
- d) Ensure that those conducting hydrographic surveys, whether Broads Authority employees or third-party contractors, are appropriately equipped, trained and competent to undertake the work.
- e) Maintain forecast tidal data information via the Broads Authority website, and at yacht stations and visitor centres.
- f) Publish Hydrographic survey data on the Broads Authority website and in cruising notes.
- g) Keep this policy under review as part of the planned monitoring and auditing of the Safety Management System Action Plan.
- h) Act in a proportionate and timely manner to address any perceived shortfalls in this policy.

5.4 Tidal heights and streams

The Rivers Yare, Bure and Waveney empty directly into the sea at Great Yarmouth and are strongly tidal. At Great Yarmouth itself, the difference between high and low tide can be as much as 2.2m, with strong tidal currents flowing.

The strong tidal flow introduces hazards for navigation, for example on the approach to obstacles such as bridges, especially for inexperienced people at the helm. The tidal range means that certain areas are only navigable at certain states of tide. Areas such as the mud flats of Breydon Water are under water at high tide, but not safe to navigate at any time, due to the high risk of grounding.

To mitigate this risk, the Broads Authority maintains channel markings in certain areas. Examples are Rockland Broad, Barton Broad and Hickling Broad, as well as the lower reaches of the rivers Yare and Bure and Breydon Water.

The Authority also publishes tide tables, in the form of an annually published booklet, and monthly tide tables are placed on the Broads Authority website.

Information is also published, both online and in “The Broadcaster” visitor newspaper, providing advice on navigating the strongly tidal area upstream of Great Yarmouth.

Safety issues and advice relating to crossing Breydon water this information is replicated in the free visitor publication “The Broadcaster” [Broadcaster 2023 by Countrywide Publications](#)

5.5 Management of Channel Markers and Aids to Navigation (ATON)

Several areas of the navigation are marked, either by posts or buoys, to clearly define the safe navigable channels in accordance with the Waterways Management Strategy. This includes marking the maintained channels across shallow Broads, examples being Rockland Broad, Hickling Broad and Breydon Water.

There are 3 different categories of channel markers:

- Channel markers recognised by Trinity House. These are the channels posts on Breydon water, which was formerly under the Great Yarmouth Port jurisdiction, transferred to the Authority in 2012.
- Channel markers to mark new flood defence works, installed on behalf of the Environment Agency to protect these areas.
- Other channel markers, including those marking navigable channels on narrow Broads, not inspected by Trinity House.

The Broads Authority has developed a Geographic Information System (GIS) based Asset Management System to regulate the management of navigation channels. The system will flag up planned regular inspections and maintenance as it becomes due and allows Rangers to record observed problems with navigation channel markings. If an issue is reported against an ATON which falls under the responsibility of Trinity House an email is generated to the Head of Ranger Services who is then responsible for adding the defect to the Trinity House defect reporting system, LARS .

When assessing which type of mark is suitable at each location the Authority takes into consideration the category of water, likely conditions on the stretch of water, distance marks need to be seen from and type and amount of river traffic. Usually, posts are installed in preference to buoys. This is because buoys can often be pulled out of position by wind, tide or by vessels.

Posts on Breydon historically had caps with white tops. Some of the older posts, which have not yet been replaced still have the caps on. The caps are being phased out as new posts are installed. This is because the new metal posts are easier to maintain without the caps which

have been lifted by high tides in the past. The Authority and Trinity House have a list of the posts with and without the caps. These lists are updated as the posts are replaced.

Cable and Gas crossing signs are also included as ATON. All the cable crossing signs are listed with Trinity house and checked annually as part of this. The signs are the responsibility of the organisation who are responsible for the hazard, so for electrical cable crossings these are the responsibility of UKPN.

It is the Broads Authority Policy that it will:

- Carry out annual visual checks on each channel marker and cable and gas crossing signs, as well as recording defects seen as part of routine patrolling by the Ranger team. Issues will be recorded, and the defect rectified or controlled (such as a temporary replacement) within the defined timescales.
- For those ATON which fall under the responsibility of Trinity House, keep an up-to-date record of these ATONs (Aids to Navigation) and report any defects to Trinity House using their defect reporting system, LARS .
- Ensure ATON availability targets as set by Trinity house are met.
- Keep the Channel markers and ATON under review if defects occur and as part of a five-year review to determine if the amount and type of marks is sufficient or if any can be removed if no longer required.

5.6 Marking Hazards

The Broads Authority has a duty to mark hazards within the navigation. On the Broads the locally recognised method of doing this is via a yellow post or buoy. The type of mark is determined by the conditions in which it is being deployed and the length of time it is anticipated it will need to remain in place. Hazards can include sunken vessels, trees fallen in the river and hazardous piling. In areas where the hazard has a significant impact on the channel, orange flashing lights may also be deployed to ensure anyone navigating after dark is able to clearly see it (as set out in the works licence guidance).

Rangers undertake checks on the marks as part of routine patrolling to ensure they are in position until the hazard has been removed.

5.7 Management of trees and scrub

There are many trees on land adjacent to the navigation area which pose safety hazards directly through their growth out into the channels restricting the navigable space, or from falling limbs or whole trees. The overwhelming majority of riverside trees are on third party land, with the Authority is only directly responsible for individual tree safety on land that it has responsibility for (for example freehold, leasehold, or other management agreements with the landowner). A process for the management of riverside trees (Waterways Management Strategy (Waterways Management Strategy (broads-authority.gov.uk))) has been developed which sets out intervention regimes based on navigational safety priorities. In addition, Rangers carry out regular site inspections and checks on trees to identify any

potential faults and arrange for corrective action to be taken. Trees on Broads Authority managed land are checked following an “amber warning for wind” issue by the metrological office.

The Authority has a published policy and objectives for trees and scrub, setting out standards for the management of trees adjacent to the river corridor. (Waterways Management Strategy (broads-authority.gov.uk)) and a 5-year management plan has been published detailing priority areas for interventions.) and a 5-year management plan has been published detailing priority areas for interventions.

6 Management of the Navigation

6.1 Introduction

This section of the SMS describes the Broads Authority’s approach to the management of navigation. This includes the use of legally granted powers, byelaws, policies, procedures, codes of practice and guidance.

6.2 Responsibilities

Under the Broads Act, the Broads Authority is the navigation authority for the Broads navigation area. The Pilotage Act also designates the authority as a “competent harbour authority”, with the power to make Pilotage Directions.

The Broads Authority Act 2009 Broads Authority Act 2009 (legislation.gov.uk) granted extra responsibilities relating to the management of safety on the Broads including the following provisions relating:

- a) The power to give general directions to all vessels, or classes of vessels, for example to designate safe navigation routes, directions to regulate mooring within the Authority’s navigation jurisdiction, directions to regulate the towing of vessels.
- b) The giving of special, i.e., one off, directions to vessels in one off cases. This will extend the existing powers in the 1988 Act to deal with safety issues where the existing provisions have proved ineffective.
- c) The power to designate construction and equipment standards for vessels allowing for the continuation of application The Boat Safety Scheme previously introduced into the Broads in 2007 by byelaws.
- d) The power to introduce compulsory third-party insurance for vessels.
- e) Powers to require the licensing of pleasure boats let for hire to the public.
- f) Powers to better regulate water skiing and wakeboarding in the Broads.
- g) Powers to deal with overhanging vegetation that poses a hazard to navigation.
- h) The removal of the requirement to have a separate navigation account dealing purely with navigation income and expenditure.

- i) The Authority also has many other responsibilities including promoting the enjoyment of the Broads by the public. The Authority aims to strike a balance between these responsibilities.

6.3 Byelaws

In accordance with the Broads Act, Byelaws relating to the use of land are made in consultation with the Natural England, and all Byelaws are confirmed by the Secretary of State for the Environment.

The Broads Authority has made five sets of Byelaws relating to the use of the Broads, under the provisions of the Broads Act. They are as follows:

- a) Navigation Byelaws, 1995 [Navigation Byelaws 1995 \(broads-authority.gov.uk\)](https://www.broads-authority.gov.uk) These are general byelaws covering Steering & Navigation, Lighting, Signals, Mooring & Anchoring etc.
- b) Vessel Dimension Byelaws, 1995 [Vessel Dimensions Byelaws 1995 \(broads-authority.gov.uk\)](https://www.broads-authority.gov.uk). These specify the maximum length and beam of vessels which are permitted to navigate within the Broads. These dimensions vary for different areas of the Broads.
- c) Speed Limit Byelaws, 1992 [Speed Limit Byelaws Booklet 1997 \(broads-authority.gov.uk\)](https://www.broads-authority.gov.uk) These specify the maximum speed limits applicable within the Broads. The speed limit varies between 3 and 6 miles per hour and was introduced principally to limit the effect of wash on other vessels, and reduce erosion of the banks, however the limits also enhance safety. The Byelaws also identify zones where commercial boat testing may take place, during which activity the speed limits may be legally exceeded.
- d) Vessel Registration Byelaws, 1997 [Vessel Registration Byelaws 1997 \(broads-authority.gov.uk\)](https://www.broads-authority.gov.uk) These byelaws govern the registration of vessels, and the payment of dues to the Broads Authority.

Boat Safety Standards Byelaws 2006. These byelaws formalised the requirement to comply with the national Boat Safety Scheme within the Broads. However, these byelaws have been revoked following the introduction of the Boat Safety Scheme requirements via the Construction Standards provision in the Broads Authority Act 2009.

A byelaw was made by the East Suffolk and Norfolk River Authority in 1969 relating to control of pollution in the Broads by sanitary appliances on boats. Pollution, enforcement, and management is an Environment Agency statutory duty for inland waters.

6.4 Directions

Special Directions

The Authority has the power to make Special Directions to a particular vessel, for the purpose of ensuring the ease, convenience or safety of the navigation or the safety of persons or property in the navigation area.

The Broads Authority Act 2009 sets out that special directions can only be given by the Authority's Navigation officer, the Authority has appointed the Head of Ranger Services as Navigation officer.

A procedure for the issue of Special directions is set out in operational procedure OP-6-4-2.

General Directions

The Authority has the power to make General Directions to all vessels, or classes of vessels, in respect of vessels in, or proposing to enter, or leaving, the navigation area for the purpose of promoting or securing conditions conducive to the ease, convenience or safety of navigation and the safety of persons and property in the navigation area. A detailed procedure for the consultation, issue and publication of such direction is set out in the Broads Authority Act 2009 Schedule 1. The Authority has set out a policy relating to General Directions this policy is captured in an operating procedure OP-6-4-1.

6.5 Harbour patrols

The Broads Authority has a team of Rangers who provide the harbour patrol function in 8 patrol vessels. The Rangers main duties include:

- providing advice and guidance to users
- maintaining a visual presence in the port area, and in so doing representing the Navigation Officer on the water.
- enforcing byelaws and Directions.
- collecting evidence following an incident and conducting preliminary investigations.
- conducting spot checks on vessel navigational documentation.
- assisting craft in difficulty and responding to other emergencies.
- supporting Emergency Services/On-Scene Commander respectively during port emergencies and SAR incidents.
- escorting vessels as required (e.g., vessels restricted in their ability to manoeuvre).
- control and directing vessel traffic (e.g., during partial port closures).
- monitoring craft licensed by the Broads authority.
- monitoring channel marker and other navigation lights and aids; and conducting routine surveillance of licensed works and moorings.

Best Value targets have been set in consultation with the Navigation Committee relating to the number and frequency of patrols made in each area of the Broads network. Patrol frequency is monitored to ensure compliance with the agreed standards. Rangers also provide a patrol service to the land-based sites that the Authority manages.

6.6 Policies

- The Authority has set out a formal Navigation Safety Policy, which has been endorsed by the members of the Authority. This policy is given in full in section 1.7 of this SMS.
- The Broads Authority has a policy regarding the bringing of prosecutions against offenders when it is appropriate to do so.
- The Broads Authority has a policy regarding the towing of vessels. The policy is given in full in section 8.5.
- The Broads Authority has a policy regarding the publication of weather forecasts and weather warnings and is given in full in section 3.4.
- The Broads Authority has a policy for pilotage which is given in full in section 7.1.
- The Broads Authority has a policy for the training of marine operational and management personnel; the policy is referenced in 2.5.
- A policy for hydrographic surveys is published by the Authority and is given in full in section 5.3. A discussion of survey arrangements can be found at section 5.3.
- A Moorings Safety Policy has been defined and is included in the Mooring Strategy (Reference 34). The policy is discussed at section 8.3 of this SMS.
- A Bridges policy for the installation of gauge height boards and the provision of de-masting moorings has been defined. This policy is given in full in section 8.9 of this SMS.
- A Blue light policy relating to the use of blue flashing lights by rescue and emergency organisations has been defined. This policy is given in full in section 8.10 of this SMS.

6.7 Notice to Mariners

Broads Act 1988 requires that Notices to Mariners are published whenever navigation is restricted or suspended for any reason - principally due to maintenance works. Notices are published in the local press, and on the Broads Authority's website, email and by social media 35 days in advance of the date of the works.

The Navigation Area Works Guidance requires contractors to apply for publication of a Notice to Mariners for works that significantly affect navigation - e.g., severe height or width restrictions, or river closure. Because of the busy nature of the Broads, closures are not permitted unless unavoidable.

6.8 Publications promoting boat safety.

The Broadcaster

The Broadcaster is a free visitor guide published annually around Easter by the Broads Authority. It is a free newspaper containing articles of interest relating to the Broads (e.g., recent conservation work), essential boat safety advice including emergency arrangements, tide tables as well as guides on things to do, places to eat, etc.

The Broadcaster is made widely available to visitors to the Broads, including placing copies at all boatyards and in local shops, restaurants etc. A copy can also be requested online.

Safety Awareness videos

The 'how to' boating videos are intended for hirers and private boat owners to watch before their visit, to help them get the most out of their time on the Broads. Hirers will be emailed a link to the videos before their holiday, to complement the safety handover they receive when they hire a boat. It is hoped that the videos will help to acquaint visitors with their boats and improve handling skills. [2023 Broads Boating Essentials](#)

6.9 Permits

Water skiing is permitted in certain areas at certain times on the Broads; The Authority has a permit scheme (Reference 3) to regulate water skiing and wakeboarding on the Broads. These permits are granted following compliance with rigorous requirements and the permits themselves set several conditions to regulate the activity.

Underwater diving

Recreational diving

Recreational diving is not encouraged due to the shallow nature of the Broads, prevalence of water plants, strong current in the lower reaches and high levels of boating traffic.

Diving as part of an organised event

Diving as an organised group requires permission from the Authority, the authority can set conditions to help ensure the safety of participants and river users. This usually involves event organisers producing a risk assessment to cover the key risks involved with the activity. Under byelaw 86 of the Navigation Byelaws 1995, it is an offence not to notify the Authority of any such event [Organising events in the Broads \(broads-authority.gov.uk\)](https://broads-authority.gov.uk)

Commercial diving or diving as part of works requiring a works licence.

Undertaking diving related to a work activity, within or beside the navigation area, with the potential to interfere with navigation, requires a Works Licence. The works licence document sets out the requirement to notify the Authority of diving operations taking place on the Broads in relation to works. If commercial diving operations take place on the broads, then the Diving at Work Regulations 1997 will apply, and you will have duties under the Regulations. [Navigating the Broads - Underwater diving](#)

6.10 Procedures

Standing Orders have been produced for the Mud Pilot (Reference 36), for the passage of commercial traffic to Cantley.

Navigation Area Works Guidance

The Navigation Area Works Guidance ([Guidance Notes for Conducting Works within the Navigation Area](#)) has been published to advise anyone wishing to carry out work within the

Broads area of legislative requirements, provide practical health and safety advice, and highlight other possible considerations.

Although titled as “guidance”, this document in fact contains mandatory procedures for the issuing of Works Licences. The Broads Act 1988 gives the Authority the power to require a Works Licence to be applied for prior to any work being undertaken, and to determine whether such a Licence should be granted.

It defines the general requirements that contractors must comply with, along with specific requirements for certain types of work, e.g., diving, towing etc.

Other procedures

A Management plan has been developed jointly with the Lowestoft and Oulton Broads Motorboat Club (Reference 38) regarding the regulation of navigation on Oulton Broad during power boat races. The management plan will be reviewed on an annual basis.

A Code of practice (reference 40) has been developed relating to the use of coaching vessels used by the Norwich rowing clubs to reduce potential conflict with other river users.

Procedures for Broads Authority workboats and launches have been developed and for vessels and equipment including, Generic Risk Assessments, vessel operating procedures, daily and weekly check lists.

Procedures relating to the implementation of provisions of the Broads Authority Act 2009 have been developed in consultation with the Navigation Committee. Including:

- Special Directions
- Entry and Inspection of Vessels (Hazardous Boat Checks)
- Removal of unsafe Vessels
- Removal of Vegetation
- Requests for information
- Entry onto Land
- Construction Standards (Boat Safety Scheme)
- Hire Boat Licensing
- Compulsory third-party insurance cover

6.11 Licensing

The arrangements for registration of boats with the Broads Authority do not contain any element of licensing. The issue of a registration number merely indicates that the vessel has been registered and does not imply that the vessel has been inspected or approved.

The Licensing of motorised vessels which are let for hire to the public came into force in 2010 and were based on the Code for Design, Construction and Operation of Hire Boats version 1:

2009. The Hire Boat Code had been produced jointly by the Association of Inland Navigation and British Marine with support from the Maritime and Coastguard Agency. It provides the framework for continued safe business operations of hire boats on inland waterways and clarifies the responsibilities of hire boat operators, navigation authorities and users. It also helps operators by the application of licensing and registration requirements in inland waterways in the UK - [Hire boat licensing \(broads-authority.gov.uk\)](https://www.broads-authority.gov.uk). The License requires hire boat operators to have successfully demonstrated via a stability test or calculation that their vessels can carry the number of persons that they are licensed to carry.

A revised Code for the Design, Construction and Operations and came into force on 1 January 2022 - [Hire Boat Code 2021](#)

Following an investigation by the Marine Accident Investigation Branch (MAIB) into the tragic death on a Hire Boat in 2020. The MAIB made recommendations to make the Hire Boat Code mandatory for Navigation Authorities. The Broads Authority implemented the Hire Boat Code into its Business Licensing Terms and Conditions on 1 April 2022.

On the 18 March 2023, the Broads Authority adopted the Hire Boat Code in full into its licensing conditions and included the requirement in the conditions that all hire boat operators are accredited under the British Marine Quality Accredited Boatyard Scheme (QAB) to ensure the operator is achieving the required safety standards.

The Quality Accredited Boatyard scheme (QAB) is a mandatory licensing requirement for any operator who has a craft available (powered or sail) for others to use, this includes operators who let holiday homes with the use of watercraft as part of the rental package.

The Broads Authority have also introduced licensing requirements for unpowered hire craft.

The licensing of commercial paddle craft (canoes, kayaks, stand-up paddle boards and paddle craft) was implemented from 1 April 2023.

The authority, in conjunction with the Association of Inland Navigation Authorities (AINA) and local authorities shall continue to monitor and assess the risks from Houseboats, vessels used for Airbnb and any other non-powered craft.

The introduction of licensing of non-powered hire craft removed the Broads Authority Paddling Scheme (BAPS) for commercial operators. Voluntary organisations and clubs are still able to licence their vessels under the scheme.

Small Passenger boats are operated on the Broads and the Authority introduced a licensing scheme in 2012 for vessels carrying no more than 12 passengers from April 2012. [Broads Authority Small Passenger-Boat Operator Licence](#)

Licensing conditions are based on the requirements of the [Inland Waters Small Passenger Boat Code COP13](#).

7 Pilotage

7.1 Introduction

This section of the SMS describes the Broads Authority’s responsibilities with regards to pilotage and identifies the controls and guidance in place to ensure safe passage of vessels.

The navigation area of the Broads is unusual compared to a commercial port, in that the area is large, there is little commercial traffic, and most traffic remains within the navigation area. This contrasts with a port where vessels are continually arriving, loading and leaving on strict timetables.

Nevertheless, the Authority recognises its responsibility with regards to pilotage, provides appropriate measures and has developed a Pilotage policy figure 7.1 below.

Figure 7.1

Broads Authority Pilotage Policy

<p>Broads Authority Pilotage Policy</p> <p>The Broads Authority (BA) is a Competent Harbour Authority (CHA) within the meaning of the Broads Authority (Pilotage Powers) Order 1991. There are currently no circumstances in which pilotage has been declared compulsory under the terms of the Pilotage Act and a General Direction is in place to control vessels wishing to enter the Broads that would require pilotage.</p> <p>It is the Authority’s policy that it will:</p> <ul style="list-style-type: none">a. Review the need for pilotage ahead of any relevant vessel movement or at least every three years. This will include reviewing the need for Pilotage Directions and will take into account any changes in the status quo with regard to large commercial vessels’ usage of the Broads.b. If the operation of a Pilotage service becomes necessary due to future changes to commercial traffic requirement, to ensure that the operation of the pilotage service is compliant with national regulations, guidelines and competency standards.c. Keep this policy under review as part of the planned monitoring and auditing of the Safety Management System.d. Act in a proportionate and timely manner to address any perceived shortfalls in this policy.
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7.2 Responsibilities

The Broads Authority (Pilotage Powers) Order 1991 confirms the Authority’s status as a “competent harbour authority” as defined under the Pilotage Act 1987. As such, it has a duty to determine whether any and, if so, what pilotage services need to be provided to secure the

safety of ships navigating in or in the approaches to its harbour; and whether such pilotage should be compulsory.

This duty is reinforced in the Port Marine Safety Code, which goes on to state that authorities should exercise control over the provision of pilots by means of controlling recruitment, examination and authorisation of pilots.

7.3 Requirements for pilot and pilotage directions

There are no pilotage directions in place on the Broads. Historically there has been one circumstance in which pilotage has been provided by the Broads Authority which was for the Coaster vessels travelling from Great Yarmouth up to the sugar beet factory at Cantley. The pilotage was strongly recommended for these vessels but was not made compulsory by means of a pilotage direction. It has been over 15 years since these vessels came into the Broads and the sugar beet factory no longer have the infrastructure required to bring in such vessels.

Bridge Pilots

There are also two bridges where 'pilotage' is available. The Broads Authority believes that pilotage is not necessary for experienced helmsmen to safely navigate these bridges. However, it is accepted that the majority of hire vessels are helmed by novices. As such, the hire boat operators provided these services to protect their own assets and to assist their customers. These services are neither required by, nor authorised by, the Broads Authority and do not operate under the provisions of the Pilotage Act.

Works pontoons/Vessels

The Navigation Area Works Guidance sets out the requirements for the movement and use of vessels used for carrying out works on the Broads. These vessels are usually escorted by Broads Authority launches as set out in the guidance document. The launches operate to their own published procedures (see section 6.5). Currently there are no vessels carrying out works on the Broads that would require a pilot. Any larger vessels wishing to enter the Broads for this purpose would be covered by the General direction and appropriate controls would need to be put in place if the vessel was to enter the system.

7.4 Authorisation of pilots

There are currently no authorised pilots operating on the Broads area. A General Direction will be put in place to control vessels coming onto the Broads which may require a pilot to allow a risk assessment to be carried out to determine the need for a pilot. If the assessment identifies a vessel requires a pilot, the process for reinstating a pilot will be investigated before permission to enter the Broads will be given.

7.5 Pilotage procedures

There are no current procedures in place. Should a vessel wishing to enter the Broads require a pilot the historic standing orders would be reviewed and updated before the vessel was allowed to undertake its journey.

7.6 Pilotage exemption

No pilotage exemption certificates have been awarded by the Authority. Because there are no formal pilotage directions, there has been no requirement to consider exemption. A procedure for the issue of pilotage exemption certificates will be developed by the Authority in the event that such an activity appears likely to occur.

8 Marine services

8.1 Introduction

This section of the SMS covers the provision of Marine Services by the Authority. Marine services are defined as support services available in a harbour, such as tugs, workboats, pilot launches and moorings.

8.2 Responsibilities

The Authority has a responsibility under the Broads Act to protect the interests of navigation. In support of this, it has the power to provide and maintain moorings throughout the navigation area.

The Authority also has a duty under the Pilotage Act and the Health and Safety at Work Act 1974 to ensure that workboats are maintained in good order and to ensure that personnel operating them have received appropriate training.

8.3 Moorings

The Broads Authority has published an Integrated Access Strategy which outlines the Authority's approach to the provision of moorings and sets out several principles when looking to obtain and manage moorings. Currently the Authority manages around 60 moorings with a stay of up to 24 hours.

The Authority also provides, where possible, moorings for the purpose of raising and lowering sails and mast in the immediate vicinity of the bridges around the Broads system see section 8.9 of this SMS.

There is a short stay mooring at Mutford Lock, provided to enable boats to moor whilst waiting for the lock, which is provided by the Broads Authority, but is outside of the Authority's navigational area. This mooring has no access to land and is managed by the operators of Mutford Lock on behalf of the Broads Authority.

There are also many private moorings and staites, which are not maintained by the Authority.

Risk assessments have been completed for all the Broads Authority managed moorings, quantifying the risk of falling into the water, and noting the controls in place at each mooring and public rescue equipment (e.g., ladders, chains/ropes, etc.)

The moorings are inspected by the Rangers on a fortnightly (summer) or monthly (winter) basis. Inspections are conducted using an electronic check facility based on the Authority's GIS system. This system then forwards any deficiencies (issues) to those staff responsible for repair and maintenance. Once repairs are complete the Rangers close the "issue" when they next inspect the facility.

Moorings Safety Policy

It is the Authority's policy that it will:

- a) Manage all 24-hour, demasting and emergency moorings to an agreed set of standards.
- b) Carry out regular checks, fortnightly in the summer months (Easter to October) and fortnightly in the winter months and report any defects on the electronic site check system.
- c) React to reports of defects from members of the public as soon as possible in line with the severity of the defect reported.
- d) Where issues are detected, the moorings or sections of the moorings to be closed if it is not possible to make safe before leaving site.
- e) Any required maintenance to moorings will be prioritised and a system for repair set up in line with this priority system.
- f) All moorings to receive a structural safety check no more than every 5 years or more frequently if required as part of a risk assessment for the site.
- g) Keep this policy under review as part of the planned monitoring and auditing of the Safety Management System.
- h) Act in a proportionate and timely manner to address any perceived shortfalls in this policy.

8.4 Workboats and launches

The Broads Authority owns and operates several small workboats, as below. Passenger craft are dealt with separately at section 8.7.

- a) Eight Broads Authority launches and one RIB, for the purpose of patrolling, escorting, offering assistance and enforcement.
- b) Three self-propelled workboats, one with a small hydraulic crane arm.
- c) Two welfare and support barges.
- d) Three water plant harvesters.

- e) Four sets Link float pontoons with excavators.
- f) Six Powered Wherries.
- g) Three Tugs.
- h) A small number of dinghies.

8.5 Towing

The Broads Authority does not operate any tugs for the purpose of towing third parties. Broads Authority launches are occasionally used for towing duties (e.g., assisting marine casualties to a safe mooring).

The Broads Authority has published a policy for towing, please see figure 8.1.

Figure 8.1

Broads Authority Towing Policy

Broads Authority Towing Policy

In accordance with the Port Marine Safety Code, the Broads Authority needs to lay down guidance for towing within the navigation area.

It is the Authority's policy that it will:

- a) Respond to emergencies for recreational vessels if BA vessels are available providing that prevailing conditions are favourable.
- b) In cases of emergency, tow vessels to a safe mooring or safe situation or recover passengers and crew.
- c) Maintain towing capability for recreational vessels in an emergency or access to such capability through a register of competent operators, for situations reasonably expected to be encountered on the Broads, and keep this capability under review.
- d) Develop and maintain risk assessments of towing activities for various types of boats (e.g. day boats, yachts, etc) in various circumstances (e.g. propulsion failure etc.).
- e) Ensure that Authority personnel involved in towing have appropriate equipment for the task, are suitably trained, and are competent.
- f) Ensure that any third parties employed by the Authority for towing activities have suitable equipment and are trained and competent to the same extent, in accordance with the BA towing specification.
- g) Share information about towing movements which would affect other boat users or authorities via relevant forums.
- h) Keep this policy under review as part of the planned monitoring and auditing of the Safety Management System.
- i) Act in a proportionate and timely manner to address any perceived shortfalls in this policy.
- j) Require that towing of commercial vessel is in line with the requirements laid down in the Navigation Works Guidance.

8.6 Management of contractors

Contractors operating in compliance with the SMS include Hydrographic survey providers, salvage operators, Tier 2 Oil spill response company and piling contractors. These contractors have their own safety management system and are subject to compliance monitoring, submission of risk assessments and method statements, periodic spot inspections and licensing by the Broads Authority where relevant.

The Broads Authority will ensure that all contractors are aware of:

- The importance of compliance with the safety policy and objectives, and their individual roles and responsibilities in achieving it.
- The hazards and risks of marine operations, and the controls and recovery measures that have been established.
- Potential consequences of departure from agreed procedures, i.e. from breaching established controls and recovery measures.
- The mechanisms for suggesting improvement in the procedures.

Any such contractors are required to comply with the Navigation Works Guidance ([Guidance Notes for Conducting Works within the Navigation Area](#)) and appropriate demonstration of crew competency.

8.7 Passenger craft

The Broads Authority operates three passenger craft for the purpose of providing guided tours and trips to members of the public.

Each of these craft carries less than twelve passengers.

The boats have specified checks, which must be carried out on a daily and weekly basis. These exist for all the Authority's boats; by way of example the check sheets for the Electric Eel are included at Annex H.

The MCA's [Inland Waters Small Passenger Boat Code](#) applies to vessels that do not go to sea and carry less than twelve passengers. The Code is a best practice guide rather than a statutory requirement and the Authority's passenger boats, crew and operation comply with the requirements of the code.

Stability tests have been conducted and recorded on all the Authority's passenger boats, and maximum passenger numbers defined accordingly.

The Broads Authority introduced a licensing scheme for small passenger boats in April 2012 and the Authority's passenger boats comply with this licensing scheme.

The Authority's passenger boats are regularly inspected and certified in accordance with the Boat Safety Scheme requirements.

8.8 Lifebuoys and personal rescue equipment

Lifebuoys and personal rescue equipment are stationed at many locations on the Broads for use in an emergency. Where they are installed on Broads Authority owned or managed sites they are regularly checked (Reference 47). At Yacht stations they are checked daily, those lifebuoys and rescue lines which are located on the Authority's 24-hour moorings are checked by the Rangers when completing the routine mooring inspections.

8.9 Bridges

There are several bridges over the rivers in the Broads Authority area which include, rail, road bridges some of which open to allow the passage of vessels. The clearance of these bridges, room available to river users, is displayed on gauge boards. Also, as part of the Authority's Integrated Access Strategy de-masting moorings are provided where practical for sailing boat to raise and lower their masts.

The Broads Authority has published a policy for Bridges see figure 8.2 below.

Figure 8.2

Broads Authority Bridge Policy

Broads Authority Bridge Policy

In accordance with the Port Marine Safety Code the Authority has a duty to manage safety at bridges.

This policy will apply to all bridges within the Broads Authority Navigation area with the exception of those bridges upstream of Foundry bridge on the River Wensum. It is the Authority's Policy that it will:

- a) Publish bridge clearances in a consistent manner on the Authority's website, in the Authority's tide tables and its visitor publication the Broadcaster.
- b) Site gauge boards at both upstream and downstream sides of bridges indicating the current clearance under the bridge.
- c) Where there is limited turning space on the approach to bridges or in areas of high tidal flow where turning could be difficult, site advance gauge boards both upstream and downstream of bridges at an appropriate location.
- d) Provide advance signage of "bridge ahead" where sight lines are not adequate to present sufficient warning to users of the hazard of the bridge
- e) Where feasible provide a de-masting facility at each quadrant of fixed bridge to allow yachts to lower their masts prior to transit and to site these facilities at a suitable distance to bridges to allow unpowered boats to be manoeuvred.
- f) During the summer months provide a ranger patrol on Breydon Water when water clearance under Vauxhall bridges is 7'6" or less to provide advice and guidance seven days a week during the normal working day.
- g) Review pilotage at bridges as part of the Hazard Review Process.
- h) Assess proposals for new developments close to bridges to ensure that safety at bridges is not compromised.
- i) Keep this policy under review as part of the planned monitoring and auditing of the Safety Management System.
- j) Act in a proportionate and timely manner to address any perceived shortfalls in this policy.

8.10 Blue flashing light

Byelaw 42 Broads Authority Navigation Byelaws 1995 states 'Except with the consent of the Authority the master of a vessel shall not cause or permit the vessel at any time to have fitted to it or to show a blue flashing light unless it is a vessel operated by the Authority, the Armed

Forces, any other navigation or harbour authority or a public or local authority acting in a law enforcement or emergency role’.

The type and number of vessels using blue lights in the Broads has been increasing (in line with changes to organisations allowed to use blue lights on the roads) the Authority has developed a policy on those permitted the use of blue lights on the Broads.

The Broads Authority has published a policy for Blue Lights see figure 8.3 below.

Figure 8.3

Broads Authority Blue Light Policy

Broads Authority Blue Light Policy

In accordance with the Port Marine Safety Code the Authority has a duty to manage the use of flashing Blue Lights on the Broads.

This policy will apply to all vessels within the Broads Authority Navigation area.

It is the Authority's Policy that it will:

- a) Permit the following organisations to use a flashing blue light in accordance with the Broads Authority Navigation Byelaw 1995 Byelaw:
 - Rescue boat organisations (including RNLI and independents)
 - Mountain and Lowland Search and Rescue
 - Police
 - RAF mountain rescue
 - National Blood Service
 - HM Coastguard
 - Forestry Commission for fire fighting
 - Revenue and Customs for serious crime
 - RNLI for launching lifeboats.
 - Military special forces (e.g. The SAS) for a national security emergency
 - Fire brigade purposes.
 - Ambulance purposes
 - Specialist company for fire salvage work
 - Local councils for fire fighting
 - Bomb disposal.
 - For Nuclear accidents
 - For mine rescue
 - For moving around human organs
 - For mountain rescue purposes

Figure 8.3

Broads Authority Blue Light Policy (continued)

And only in these circumstances:

- at the scene of an emergency
- responding to an emergency
- wanting to let people know you are there
- wanting to let people know that there is a hazard

- b) Review Blue light policy as part of the Hazard Review Process
- c) Keep this policy under review as part of the planned monitoring and auditing of the Safety Management System
- d) Act in a proportionate and timely manner to address any perceived shortfalls in this policy.

9 Hazards

9.1 Introduction

This section of the SMS describes the Broads Authority's approach to the systematic identification, assessment and control of hazards, and the minimisation of the risks they pose to the public and to employees of the Authority to a level, which is as low as reasonably practicable.

9.2 Responsibilities

The Broads Act gives the Authority a duty, *inter alia*, of "protecting the interests of navigation". It is therefore important that hazards to navigation and those associated with land-based activities on land which is owned or managed by the Authority are identified, and appropriately managed.

In addition, the Management of Health and Safety at Work Regulations 1999 [The Management of Health and Safety at Work Regulations 1999 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukreg/1999/2312/1) require the Authority to make a suitable and sufficient assessment of all the risks to the health and safety of workers and others arising at or from a work activity.

9.3 Formal risk assessment

A structured approach to the identification and analysis of hazards, and the assessment of the risks they pose, is at the centre of any Safety Management System. The process is described in section 10.4. In accordance with the Port Marine Safety Code, this includes:

- a) The identification and analysis of risks.
- b) An assessment of these risks against an appropriate standard of acceptability.
- c) A cost effectiveness analysis of risk reducing measures where appropriate.

The methods used to identify hazards, and assess and mitigate risk, are described in section 10.

9.4 Discussion of the existing hazard log

All the hazards identified have been formally reviewed as part of the ongoing development of the SMS. The hazard log is kept under constant review by officers who refer any proposed variations or new hazards to the Boat Safety Management Group and the Local Access Forum. However, a formal review takes place every three years which is carried out by a stakeholder group. At each review, the group review experience gained in the intervening year and reviews proposed actions and whether the status of the hazard has changed.

Integrated Hazard Review 2023 records the outcome of the most recent reviews and makes recommendations for prioritisation and further action.

Further formal hazard reviews are scheduled with the appropriate groups of stakeholders, to review the risk assessments and progress against actions, and to generate ALARP statements where possible.

9.5 Hazard identification

Hazard identification is part of a process used to evaluate if any situation, item, thing, which may have the potential to cause harm.

There are different techniques in hazard identification and methods which can involve suitably qualified people to discuss the hazards. This provides assurance that the hazard is valid, and that the assessment of the hazard, and the safeguards proposed, are suitable.

Hazards may also be identified by any employee of the Authority, or indeed any person. Any hazard raised in such a way should be discussed and considered for inclusion in the hazard log. Decisions should be recorded to provide an audit trail.

The ongoing management of hazards identified by such processes is described in the next section.

10 Risk assessment

10.1 Introduction

The conduct of a formal risk assessment is central to the effective operation of the Safety Management System. Risk assessments must also be conducted for specific activities undertaken by the Authority.

10.2 The ALARP principle

The principle of ALARP (As Low As Reasonably Practicable) is considered to be best practice by the Health and Safety Executives and is derived from case law in accident investigation cases. The HSE's document "Reducing Risks, Protecting People" gives the background to ALARP. [Risk management: Expert guidance - Reducing risks, protecting people - R2P2 \(hse.gov.uk\)](https://www.hse.gov.uk/riskmanagement/)

The aim of the ALARP principle is to strike a balance between the severity of the consequence of a particular hazard, and the cost and difficulty of implementing control measures.

A risk can be declared ALARP, provided it is not in the "intolerable" region described below, if it is believed that all possible mitigating actions and safeguards have been identified and, if considered reasonably practicable, implemented.

The ALARP principle therefore recognises that it is seldom possible to entirely remove risk, and this is particularly true in a marine environment.

ALARP statements are to be generated following the formal hazard review. This may entail further analysis of the hazard or identification of additional mitigating actions.

10.3 Risk classification system

Risk levels were derived by using the risk matrix approach shown at Figure 10.1 The risk matrix approach is used to combine the estimated likelihood of a hazard with its estimated consequences to people, the environment, assets, and port business (the higher the risk numbers the greater the risk).

Figure 10.1 also shows the risk acceptance criteria: those that fall in the low or negligible category are “Broadly Acceptable” and those within High or significant risk are “Intolerable”. Risks that fall between these categories are in the As Low As Reasonably Practicable (ALARP) region. It should be noted that it is incorrect to say that a risk in region B “is ALARP”. Its placement in this region means that the risk has to be demonstrated to be ALARP by means of mitigations and risk reduction.

- a) Intolerable risks would require urgent attention and be the focus of regular reviews by the Broads Authority and any suitable risk control measures that are identified should be seriously considered for implementation. Such risks cannot be declared ALARP, a means of reducing or avoiding the risk must be found and implemented.
- b) Risks in the ALARP region require review to ensure that they can be satisfactorily weighed against the time, trouble, cost and physical difficulty in taking further measures to reduce them.
- c) Broadly acceptable risks would require some attention and occasional review (e.g. annually) to ensure that they remain under control.

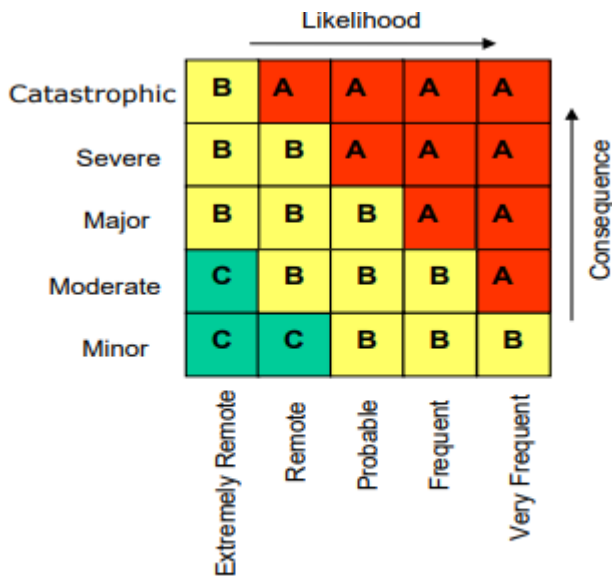


Figure 10-1: Risk Assessment Matrix

Risks are judged in terms of their likelihood (the probability of an incident occurring) and their impact (the worst-case consequence, if an incident occurs, on people, assets and the environment).

The estimates that were provided in the original FSA were worst credible scenarios, however, it is important to emphasise that these values should be viewed in relative terms and are not absolute measures of risk. Empirical evidence has shown that experts tend to be pessimistic when estimating risk levels (particularly when relating to safety) and this should be considered when reviewing the results of risk assessments.

Assessment of Incident Likelihood

The likelihood categories range from less than 1 incident per 100 years to a likelihood of more than 1 incident per month, as shown in 10.2 below.

Table 10.2
Risk Likelihood Categories

Likelihood	Occurrences
Very Unlikely	1:50 years
Unlikely	1:25 years
Occasionally	1:10 years
Probably	1:5 years
Likely	> 1 per year

Consequences to People

The consequences to people to people range from no injuries or damage to health to >5 fatalities or >50 major injuries, as shown in 10.3 below.

Table 10.3
Consequence to People

Consequence Category	Number	Definition
None	1	No injuries or fatalities.
Minor	2	1 minor (recoverable) injury.
Moderate	3	Serious injury(s) (MAIB/RIDDOR reportable injury) s; or 1 minor occupational illness.
Severe	4	Single fatality
Catastrophic	5	Multiple fatalities

Consequences to Environment

The consequences to the environment range from no environmental damage to persistent and severe environmental damage over a large area with, as shown in Table 10.4 below.

Table 10.4

Consequence Categories - Environment

Consequence Category	Number	Definition
None	1	None (No incident - or a potential incident/near miss)
Minor	2	No Measurable Impact (An incident or event occurred, but no discernible environmental impact - Tier 1 but no pollution control measures needed)
Moderate	3	Minor (An incident that results in pollution with limited/local impact - Tier 1, Harbour Authority pollution controls measures deployed)
Major	4	Significant (Has the potential to cause significant damage and impact - Tier 2, pollution control measures from external organisations required)
Severe	5	Major (Has the potential to cause catastrophic and/or widespread damage - Tier 3, requires major external assistance)

Consequences to port and shipping infrastructure

The estimates of consequences to assets ranged from no damage to assets to complete disruption to commercial activities; cost of repair >£10M; all river users affected, as shown in the table below.

Table 10.5

Consequence Categories – Port and shipping infrastructure

Consequence Category	Definition
None	No damage to assets.
Minor	(£0- £100,000)
Moderate	(£100,000 - £1m)

Consequence Category	Definition
Major	(£1m - £10m)
Catastrophic	(> £10 million)

Consequences to port and port user operations (business, reputation etc.)

The consequences to the Port and Port operations range from no damage to reputation and business to severe business disruption and reputational damage, as shown in table 10.6 below.

Table 10.6

Consequence Categories – Port and port user operations

Consequence Category	Definition
None	No impact on reputation or disruption to business.
Minor	Local complaint/recognition, Minimal change in stakeholders 'confidence, impact lasting less than 1 week. Minor business disruption
Moderate	Moderate (Negative local publicity. Moderate damage to reputation. Moderate loss of revenue, £750,000 - £4m)
Major	Serious (Local, regional media coverage, Moderate change in stakeholder confidence, Impact lasting between one and three months, Moderate business disruption
Catastrophic	Major (National media coverage, Significant change in stakeholder confidence, Impact lasting more than three months, attracts regulators attention /comment, Major Business disruption and impact)

10.4 Management of hazards and risk

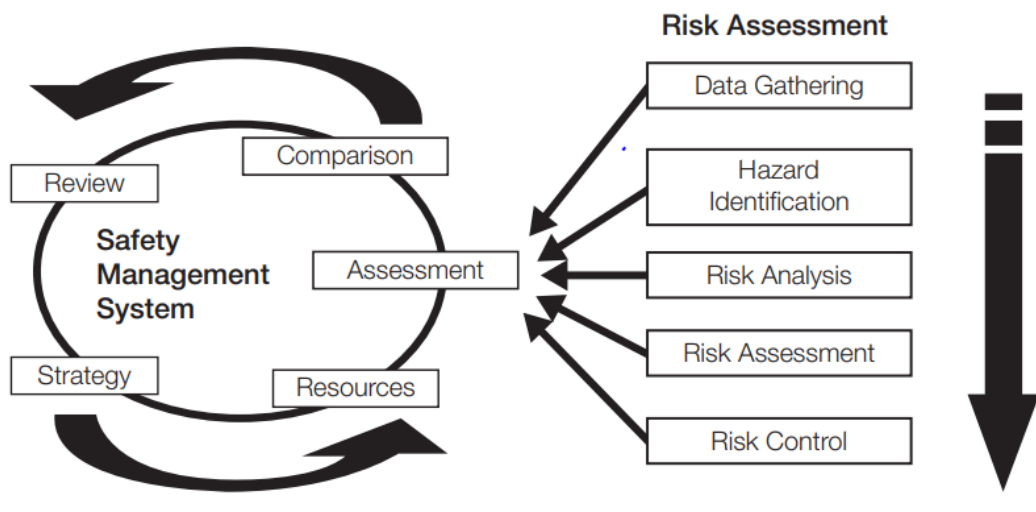
Having identified hazards and controls, it is important to verify that those controls are put into place, and that they are effective in mitigating the hazard.

This requires that the hazards are reviewed on a regular basis, and that completion of the actions is recorded. It is also important to identify the actions for any given control measure, and to ensure they are aware of, and accept, the action.

The Guide to Good Practice on Port Marine Operations (p.32) identifies the steps of hazard management as shown to the right of Figure 10.7.

Figure 10.7

Relationship between the Safety Management System and risk assessment



The Authority has also developed a Hazard Management Policy, please see Figure 10.8 below.

Figure 10.8

Broads Authority Hazard Management Policy

Broads Authority Hazard Management Policy

In accordance with the Port Marine Safety Code, the Broads Authority has a duty base its policies, plans and procedures based on a formal assessment of hazards and risks.

It is the Authority’s Policy that it will:

- a) Ensure that all personal are aware that they may raise a hazard.
- b) Manage the Hazard Log, which will be the responsibility of the Head of Safety Management.
- c) Maintain and track the Hazard Log, create action plans following subsequent reviews and monitor and record progress via regular meetings of the Boat Safety Management Group.
- d) Review the Hazard log every three years by way of a full stakeholder review.
- e) Keep this policy under review as part of the planned monitoring and auditing of the Safety Management System Action Plan.
- f) Act in a proportionate and timely manner to address any perceived shortfalls in this policy.

10.5 Risk assessment

It is a part of the Authority's Navigational Safety Policy that risk assessment techniques be used to ensure that hazards are reduced to a level which is as low as reasonably practicable.

It is important that risk assessments are conducted to a common standard, and against common criteria. This will then enable the level of risk to be understood and prioritised.

The Authority has developed instructions for the conduct of a risk assessment, including definitions of the probability and consequence of identified hazards. These instructions, along with a blank risk assessment form, are published on the Authority's intranet - [Guidance Notes for Generic Risk Assessment and Safe System of Work](#)

These instructions have been used for the risk assessments of the 24-hour moorings (see section 8.3).

These instructions have been used in the preparation of generic and site-specific risk assessments, in the Broads Authority's corporate occupational health and safety system.

Risk Assessments are stored electronically both on the corporate server and on the Broads Authority Intranet which is available to all employees.

10.6 Boat Safety Scheme

The Boat Safety Scheme is a nationally implemented scheme. [Hire Boats Requirements \(2017\)](#) | [Boat Safety Scheme](#) | [Go Boating - Stay Safe](#)

Its aim is to work on behalf of the UK's navigation and harbour authorities to help sustain safety and promote pollution avoidance on the inland waterways in respect of boats, their installations and components.

The Scheme concentrates on safety of the fixtures and fittings of the boat principally with respect to fire, fumes and explosion. As such, it concentrates on engines, fuel tanks, gas appliances/piping and electrical equipment/cabling. The BSS (Boat Safety Scheme) does not cover navigational safety, stability or watertight integrity of hulls.

The BSS has been introduced in three phases between April 2007 and April 2009, with the larger craft and hire craft requiring earlier compliance.

The version of the BSS issued in 2015 applies to all craft, whereas additional checks issued in 2017 applies to hire craft. Work Boats and other boats such as small passenger craft are subject to the BSS 2002 version of requirements.

The Authority initially introduced the Boat Safety Scheme through byelaws however the Broads Authority Act 2009 made compliance with the Boat Safety Scheme mandatory under the "Construction Standards" provision which will allow for greater flexibility in the event of an update to the Boat Safety Scheme. The byelaws were revoked when the Construction Standards provision was implemented.

The Authority is active in the development of the BSS requirements and has influence over the management of the scheme. The Authority is represented on a number of BSS

committees including, the BSS Technical Committee represented by the Head of Safety Management, the BSS Advisory Committee represented by the Lead Broads Authority Member for Safety, and the BSS Management Committee represented by the Head of Ranger Services.

11 Emergency response

11.1 Introduction

This section of the SMS describes the Authority's preparedness for emergency situations, and their procedures for dealing with an emergency should it arise.

11.2 Responsibilities

The Broads Act does not give the Authority a responsibility to act as an emergency service. Nonetheless, the Rangers and Broads Control frequently receive emergency calls, and have a responsibility to liaise appropriately with the emergency services.

11.3 Reporting of an emergency

In the event of an emergency on the water, boaters are instructed to call the Emergency Services on 999. The Coastguard acts as co-ordinator for any action which may be required, liaising with Broads Control and the Rangers as necessary.

The Broads Authority is not a designated Emergency Service and is not a declared Search and Rescue (SAR) resource by H.M. Coastguard. However, the Authority's staff and patrol launches are frequently called on to assist the official emergency services in searching for missing persons or overdue vessels, communicating emergency messages to vessels, providing guidance on locations and access to the rivers network and sometimes transporting police, fire, ambulance or coastguard personnel or equipment.

The Broads Authority's personnel and resources are controlled via the "Broads Control" VHF Radio Base station in Thorpe, Norwich. Broads Control is operated during office hours seven days a week in summer, shorter hours in winter. Callers with emergencies or serious problems are directed to dial 999 and ask for the appropriate emergency service. H.M. Coastguard will co-ordinate any major incident that requires any of the maritime SAR assets to be used.

Some areas of the Broads have good access to the road network, so the usual land-based emergency services can reach any casualty in these areas. For the open waters of the Broads, and those rivers with no direct road access, the Broads Authority provides patrol craft manned by Rangers and trained volunteers.

The Norfolk Constabulary "Broads Beat" has a boat available for Police patrols and to assist with SAR activities. The Hemsby Inshore Rescue RIB can be transported to the Broads and regularly exercises on the waterways. The RNLI has established an inland Lifeboat Station at Great Yarmouth. This is equipped with a directly launched D Class inflatable and also a small portable inflatable deployed to distant locations on a specially adapted four-wheel drive pickup vehicle.

Most of the sailing and boating clubs on the Broads have dedicated rescue craft afloat during racing and regattas and the Authority has good relations with these clubs and their resources can be called upon when required.

Search and Rescue Helicopters are co-ordinated by the Aeronautical Rescue Coordination Centre, and they will deploy resources based in Humberside and Lydd where required to service the Broads area.

Broads Control operates a messaging/incident recording system for recording all calls received - whether an emergency or not. Incident records are kept and maintained for analysis and the derivation of trends and statistics.

The Broads Authority provides a 24-hour, 365 days a year standby facility for the Emergency services usually coordinated by the Coastguard. Out of office hours the Coastguard control unit can contact the duty standby manager via a pager system in the event of an incident. The on-call standby manager is primarily to provide advice and guidance to the emergency services however they have access to other operational staff and can call on all available officers and deploy vessels and equipment to assist where necessary. All standby staff are trained in boat handling, first aid and pollution control procedures.

11.4 Incident reporting system

Incidents can be reported to the Broads Authority by a variety of methods, verbally to Broads Control or any member of staff, via a prepaid postal form and online via the Authority's website.

11.5 Assessment of the situation

If the Authority receives a call from a person in distress, the Rangers and Broads Control need to determine the nature of the situation and decide whether it is necessary to call the Emergency Services, or whether to attend themselves. Any Broads Authority response to such situations is coordinated by Broads Control who have reference to the Navigation Officer where necessary.

11.6 Response to a minor emergency

In the event of a minor emergency (for example a vessel which has run aground), a Ranger will attend and provide support as required. All Broads Authority personnel operating in the field are first aid trained, as described in the Training and Development Policy.

11.7 Oil spills

The "[Oil Spill Contingency Plan - Broads Navigation Area](#)" is for spillages relating to private and hire craft. Such spills are generally relatively minor in nature, and consist of spillage of diesel during fuelling, and the leaking of engine oil or fuel into bilges and thence into the water.

The plan has been compiled in consultation with the Environment Agency, English Nature, Defra, Norfolk County Council and the Great Yarmouth Port Company.

It describes three tiers of response, in terms of the quantity of spillage, the organisation and mechanism for response, and the resources at the Authority's disposal for containment and

disposal of oil. The plan interfaces with Local Authority and National plans for the higher tiers of severity. In all cases, containment and recovery of the pollutant is the preferred option.

11.8 Communications

In the event of calls being received by the Authority as a result of a major incident, the call will generally be passed to the officer with the appropriate technical background to respond.

A number of key staff have received training in dealing with the media effectively including response to major incidents.

11.9 Emergency Response Exercise

The Authority is not an Emergency Response Organisation.

The Authority takes part in emergency planning exercises with the emergency services and the County Emergency Planning team.

12 Monitoring and auditing

12.1 Introduction

The SMS will evolve and develop as the Broads area changes. Effective management and maintenance of the SMS will be required, to monitor any changes and the impact that those changes have on safety.

The PMSC requires that the SMS is monitored and audited to ensure that it continues to meet the requirements of the code. Such monitoring and auditing comprises three basic types:

- a) Proactive monitoring: This involves regularly reviewing aspects of the SMS to ensure that it is continuing to deliver an appropriate level of safety. This is generally achieved by reference to a defined set of performance indicators.
- b) Reactive monitoring: This involves reviewing the causes and outcomes of any incidents or accidents, and ensuring that any implications on the SMS are captured and implemented.
- c) Auditing: This involves taking a detailed and independent look at some or all of the SMS to verify its compliance with the PMSC and its effectiveness.

12.2 Proactive monitoring

The PMSC requires that monitoring is carried out to demonstrate to the Duty Holder that the SMS is achieving its goals.

To monitor performance, it is necessary to identify a set of performance indicators which will cover all aspects of the SMS.

The following performance indicators will be monitored monthly to provide evidence of the continued functioning of the SMS and enable progress towards (or away from) targets to be assessed. The status of each indicator, in relation to its defined target, will be recorded on the Authority's website. [Safety monitoring \(broads-authority.gov.uk\)](https://broads-authority.gov.uk/safety-monitoring)

Conservancy and management of Navigation

- a) Delivery of Annual dredging programme (Target: 100%, however a phased increase in target may be preferred based on the Waterways Management Strategy Action Plan);
- b) The number of navigational aids (markers/buoys/lights) which are overdue for scheduled inspection (Target: Zero);
- c) The number of Channel markers and buoys renewed against annual maintenance programme.
- d) The number of formal written warnings issued by Rangers (Target: No target set, however the indicator provides a measure of the level of activity);

Pilotage

- e) The number of piloted movements undertaken within the reporting period (Target: No target set, however the indicator provides a measure of the level of activity);
- f) The number of escorted movements undertaken in the reporting period (Target: No target set, however the indicator provides a measure of the level of activity);

Marine Services

- g) Number of moorings and land sites which are overdue inspection (Target: Zero);

Hazards and risk assessment

- h) Number of non-ALARP hazards. (Target: Zero)
- i) Number of hazards overdue for review (Target: Zero)

Emergency response

- j) Number of recorded incidents. (Target: No target set, however the indicator provides a measure of the level of activity. It may also be argued that a low number of incidents is partly due to the successful implementation of a Safety Management System);
- k) Number of oil spill incidents (Target: No target set, however the indicator provides a measure of the level of activity. It may also be argued that a low number of incidents is partly due to the successful implementation of a Safety Management System).

12.3 Reactive monitoring

The purpose of reactive monitoring is to ensure that any incidents or accidents are reported and investigated, and that where an amendment to the SMS might reduce the risk of reoccurrence, that amendment is made.

The Authority has an incident reporting procedure that utilises the Incident Reporting and Investigation System (IRIS) application to log and record incidents. It is the Authority's policy that all reports from this system will be reviewed on a monthly basis to determine whether an amendment to the SMS might be required.

Each incident report is to be risk-assessed in accordance with the criteria at Section 10 of the SMS. This assessment should take into account that a low-category incident recurring regularly may, on aggregate, merit a higher category.

Category C issues are to be logged for implementation at the next scheduled SMS update. Category B issues are to be raised to senior management, and a decision taken as to whether an immediate update of the SMS is required. Category A issues should be notified to senior management, and an update to the SMS issued promptly.

Examples of the kind of amendment which may be required include updating a policy or changing the status of a hazard.

Where an amendment to the SMS is identified, it shall be logged for implementation at the next update, unless the severity of the situation is such that an immediate update is required.

12.4 System auditing

Monitoring of performance indicators provides a useful guideline as to how well the system is functioning; however, an occasional in-depth analysis of the SMS is required.

The Designated Person will conduct annual internal audits of specific areas of the SMS, record the findings, and implement any action which arise as a result.

Every three years, the Authority will arrange for a full audit to be undertaken by an independent third party to gain an objective opinion of the effectiveness and suitability of the SMS to meet its objectives, and to verify continued compliance with the PMSC.

The following sequence is proposed for the conduct of full and internal audits.

Table 12.1

Proposed audit sequence

Year	Subject
1	Conservancy and Management of Navigation and Marine Services
2	Hazard/Risk Assessments, Emergency Response and Pilotage
3	Full System Audit

The Designated Person will have responsibility for conducting internal audits, reporting the outcomes of all audits to the Members of the Authority, and arranging for the results to be published.

Where audits identify areas for improvement or non-compliances, an Action Plan will be developed to rectify these issues.

The audits will be timed to feed into a statement that will be made in the Broads Authority Annual Report on the navigation safety performance of the Authority. It is a requirement of the PMSC (paragraph 3.19) that performance reports should be published by the Authority. The Guide to Good Practice cites three years as an appropriate interval for such reports. The Full Audit programme is timed to align with this.

An external audit of the SMS was completed in November 2023 which produced a report “Assurance Review of Port Marine Safety Code” which sets out the findings and recommendation together with the Broads Authority initial responses.

Progress against these recommendations is reviewed and monitored by the Boat Safety Management Group and the Audit and Risk Committee.

13 Recommendations

Table 13.1 summarises the recommendations that have been made in the current issue of the SMS External Audit (November 2023) and the Stakeholder hazard review completed in October 2023.

Table 13.1
Recommendations and progress to date

Source	Recommendation	Progress to date
Integrated Hazard Review 2015/16	It is recommended that the Integrated Hazard log remains under continual review and is subject to a review in Spring 2019 and then three years from the date of publication of the report.	Stakeholder hazard review completed in October 2023 integrated into this issue of the SMS.
External Audit: Recommendation 1.	Governance: The internal audit cycle and reporting process to be re-established in line with the process set out in the Authority’s Marine Safety Management System (MSMS).	The Navigation Committee forward reporting plan, maintained by governance, has been updated to include this reporting. This action has been resolved by a report on the programmed schedule for internal audits by the safety team at the 11 January Navigation Committee.
External Audit: Recommendation 2.	Governance: Action to be taken to ensure that an appropriate statement about the standard of the organisation’s performance against the PMSC is included in the Duty Holders annual report. An annual PMSC report should also be presented to the Authority (as	The reviews and the actions to ensure compliance to the PMSC have been taking place, it is the reporting of this and the overall compliance that now needs reviving. The Authority have completed the SMS document review and completed the Pilotage Management review. Now that the PMSC audit has now been completed, a

Source	Recommendation	Progress to date
	Duty Holder) which provides an overview of performance, to enable the Duty Holder to make such a statement	full report of the SMS has been programmed to take place at the April 2024 Navigation Committee and has been placed on the Governance forward committee plan.
External Audit: Recommendation 3.	The website data requires updating to reflect the correct PIs (as per the SMS), and a process put in place to ensure the monthly monitoring of PI data and the data published on the website is up to date and its accuracy substantiated with supporting documentary evidence.	The KPI is captured and much of the data is reported to the Navigation Committee at each session they meet. This data is an appendix in the Chief Executives Summary report. A review of the KPI data and how best to ensure consistent reporting will take place early 2024, with amended reporting on the website by May 2024.
External Audit: Recommendation 4.	Action to be taken to ensure that an appropriate compliance statement is made by the Duty Holder when this is next required by the MCA (likely to be in March 2024). This included ensuring that appropriate reporting mechanisms are in place in line with the recommendations above, to enable the Duty Holder to make such a statement.	
External Audit: Recommendation 5.	Action to be taken to ensure that the Authority complies with the requirement for a marine safety plan and associated reporting process, either in the form of a separate safety plan, or through relevant provisions being added to the SMS and/or associated policies.	Because of the statute and the way safety improvements are planned within the broads, the details within a Marine Safety Plan are detailed and reported within the Broads Plan. HoSM has reviewed the Marine Safety Planning process and created a Marine Safety Plan to reflect the requirements under the PMSC.

14 Abbreviations and glossary

14.1 Abbreviations

Figure 14.1

List of abbreviations

Abbreviation	Term
AINA	Association of Inland Waterways Authorities
ALARP	As Low As Reasonably Practicable
BA	Broads Authority
BESL	Broadland Environmental Services Ltd
BFAP	Broadland Flood Alleviation Project
BSS	Boat Safety Scheme
BWSF	British Water Ski and Wakeboard
CE	Chief Executive
Defra	Department for the Environment, Food and Rural Affairs
DfT	Department for Transport
ES	Environmental Stewardship
ESA	Environmentally Sensitive Area
FSA	Formal Safety Assessment
GIS	Geographic Information System
HAZOPS	Hazard and Operability Study
HFO	Heavy Fuel Oil
HSE	Health and Safety Executive
IRIS	Incident Reporting and Investigation System
MCA	Maritime and Coastguard Agency
NERC	Natural Environment and Rural Communities
PMSC	Port Marine Safety Code
SAC	Special Area for Conservation
SAR	Search and Rescue
SMS	Safety Management System
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SWIFT	Structured What-If Technique
VTS	Vessel Traffic System
WDC	Waveney District Council

14.2 Glossary

Table 14.2

Glossary of terms

Term	Definition
Competent Harbour Authority	Any harbour authority which has statutory powers in relation to the regulation of shipping movements and the safety of navigation within its harbour, and whose harbour falls wholly or partly within an active former pilotage district (source: Pilotage Act)
Designated Person	Provides independent assurance to the Duty Holder that the SMS is working effectively, and to audit the Authority's compliance with the Code (source: PMSC).
Duty Holder	Each board member of a harbour authority must accept responsibility for ensuring that the Authority discharges its duties and powers to the standards laid down. The members are, severally and collectively, the Duty Holder (source: PMSC)
Harbour	The area or areas inside the limits of which the harbour authority's statutory powers are exercisable (source: Pilotage Act).
Impact	The severity (in terms of people, assets or the environment) of an incident or accident occurring as a result of a hazard.
Likelihood	The chances of an incident or accident occurring as a result of a hazard.
Marine Operations	Marine Operations means the moving, berthing un berthing of ships and other marine craft within the limits and approaches of the harbour Authority (source: A Guide to good Practice on Marine Port Operations).
RAMSAR	The Convention on Wetlands, signed in Ramsar, Iran, in 1971, an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.
Risk Class	The classification of a risk, in terms of tolerability, based upon its likelihood and impact
Statutory undertaker	Persons authorised by enactment to carry out any railway, light railway, tramway, road transport, water transport etc. undertaking. Any public gas supplier, water or sewerage undertaker, the Environment Agency, the Post

Term	Definition
	Office and the Civil Aviation Authority are deemed to be Statutory Undertakers (source: Town and Country Planning Act 1990, 262).