

Navigation Committee

Agenda 03 September 2026

10.00am

King's Centre, 63-75 King Street, Norwich, NR1 1PH

Sarah Cowley, Chief Executive – Wednesday, 26 August 2026

Under the Openness of Local Government Bodies Regulations (2014), filming, photographing and making an audio recording of public meetings is permitted. These activities however, must not disrupt the meeting. Further details can be found on the [Filming, photography and recording of public meetings](#) page.

Introduction

1. To receive apologies for absence
2. To receive declarations of interest (see [Appendix 1](#) to the Agenda for guidance on your participation having declared an interest in the relevant agenda item)
3. To note whether any items have been proposed as matters of urgent business
4. **To receive and confirm the minutes of the Navigation Committee meeting held on 16 April 2026** (Pages 4-16)
5. **Summary of actions and outstanding issues following discussion at previous meetings** (Pages 17-20)

Reports for information

6. **Chief Executive's report and current issues** (Pages 21-32)
Report by Head of Governance on behalf of the Chief Executive
7. **Annual Income and Expenditure 2025/2026** (Pages 33-40)
Report by Director of Resources
8. **Navigation income and expenditure 1 April to 31 July 2026 actual and 2026/27 forecast outturn** (Pages 41-56)
Report by Director of Resources
9. **Operations work programme progress update** (Pages 57-66)
Report by Head of Operations, and Ecology & Design Manager
10. **Oil Spill Contingency Plan** (Pages 67-147)
Report by Head of Ranger Services

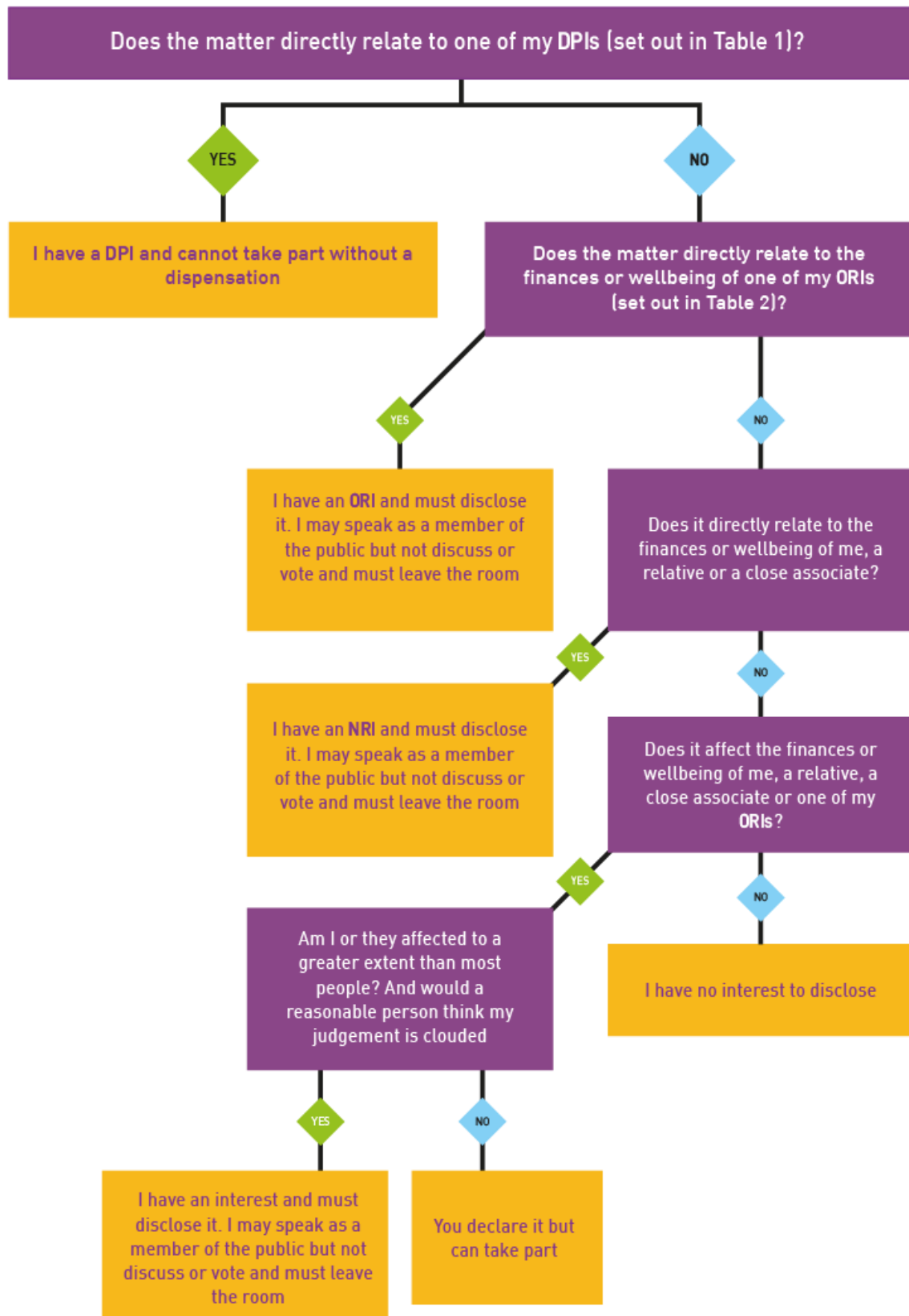
11. **Reedham Swing Bridge** (Pages 148-151)
Report by Director of Delivery

Other matters

12. Other items of business
Items of business which the chairman decides should be considered as a matter of urgency pursuant to section 100B (4)(b) of the Local Government Act 1972
13. **To note the date of the next meeting – Thursday 5 November 2026 at 10.00am at the King’s Centre, 63-75 King Street, Norwich, NR1 1PH**

For further information about this meeting please contact the [Governance team](#)

Appendix 1 – Extract from the Local Government Association Model Councillor Code of Conduct



Navigation Committee

Minutes of the meeting held on 16 April 2026

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Present

Alan Goodchild – in the Chair (from item 2), Harry Blathwayt, Sue Cadamy, Mark Collins, Peter Dixon, Tony Grayling, Heather Hilburn, Leslie Mogford, Bob Neate, Remus Sawyerr, Paul Thomas, and Daniel Thwaites.

In attendance

Lucy Burchnall - Head of Ranger Services, Matt Dane – Head of Safety Management (items 12 and 13), Dan Hoare – Head of Operations, Emma Krelle – Director of Resources, Emily Leonard – Waterways Project Officer (item 15), John Packman - Chief Executive, Rob Rogers - Director of Delivery, Joseph Balaam – Governance Officer, Lorraine Taylor – Head of Governance.

1. Apologies and welcome

The Chief Executive welcomed everyone to the meeting.

Apologies were received from Stephen Bolt.

Openness of Local Government Bodies Regulations 2014

The Chief Executive explained that the meeting was being audio-recorded. All recordings remained the copyright of the Broads Authority and anyone wishing to receive a copy should contact the Governance Team. The minutes remained the formal record of the meeting. He added that the law permitted any person to film, record, photograph or use social media in order to report on the proceedings of public meetings of the Authority. This did not extend to live verbal commentary. The Chair needed to be informed if anyone intended to photograph, record or film so that any person under the age of 18 or members of the public not wishing to be filmed or photographed could be accommodated.

Chair's announcements

The Chief Executive reminded Members that they were in the pre-election period of heightened sensitivity and Members should refrain from speaking in a way which sought to influence voters.

2. Appointment of Chair

Alan Goodchild was proposed by Sue Cadamy and seconded by Mark Collins.

There being no other nominations Alan Goodchild was appointed Chair of the Navigation Committee for the forthcoming year.

Alan Goodchild took the Chair.

The Chair thanked the committee for having confidence in him to continue as Chair.

3. Appointment of Vice-Chair

Peter Dixon was proposed by Sue Cadamy and seconded by Mark Collins.

There being no other nominations Peter Dixon was appointed Vice-Chair of the Navigation Committee for the forthcoming year.

4. Declarations of interest

Members expressed their declarations of interest as set out in Appendix 1 of these minutes. Members indicated they had no further declarations of interest other than those already registered.

The following Members confirmed that they had been lobbied in relation to agenda item number 15: Bob Neate, Mark Collins, Harry Blathwayt, Peter Dixon and Alan Goodchild.

5. Matters of urgent business

No items were proposed as a matter of urgent business.

6. Minutes of last meeting

The minutes of the meeting held on 22 January 2026 were signed by the Chair as a correct record of the meeting.

7. Summary of actions and outstanding issues following discussions at previous meetings

Members received a report summarising the progress of issues that had recently been presented to the Committee. The Chief Executive said there were no further updates, and no questions were presented by the Members.

The report was noted.

8. Appointment of two co-opted members to the Broads Authority

Members were asked to recommend the appointment of two co-opted Members to the Broads Authority until 14 May 2027 as set out in Section 1(2)(c) of the Norfolk and Suffolk Broads Act 1988 as amended. The Head of Governance explained that given that Alan Goodchild had been appointed Chair of the Navigation Committee, he would automatically take up one of those appointments. This, therefore, left one vacancy that needed to be filled.

Tony Grayling proposed and Sue Cadamy seconded that Peter Dixon be appointed as a member of the Broads Authority until 14 May 2027. No other nominations were received.

It was resolved that Alan Goodchild and Peter Dixon be recommended to the Broads Authority for appointment as the co-opted Members to the Broads Authority until 14 May 2027.

9. Chief Executive's report and current issues

Members received the report of the Chief Executive (CE). The CE said there were a number of issues from the last Broads Authority meeting that would be of interest to the committee.

First, the CE said the Authority had adopted a series of strategic priorities, one of which

related to navigation. This comprised three parts; review of Breydon and lower tidal rivers management plan, the development of a Joint Maintenance Dredge Protocol with Peel Ports and a Riverside Tree Management Plan, which was due for review.

Second, The CE said the financial strategy had been adopted by the Authority. At the time of writing the Authority had received 46% of the budgeted tolls income, this figure was now 75% and continued to be monitored weekly. A climate action plan had also been adopted.

The CE drew Members attention to the timetable for the development of the Broads Plan, which had also been adopted at the last meeting of the Authority. The CE acknowledged the important role of the Navigation Committee during this process and emphasised the need of the Committee's involvement. The process would start this week as the Authority would be informing Natural England of the commencement of the review. The CE recommended that Members of the Navigation Committee attend a future workshop to consider both the effectiveness of the existing plan and what Members thought the priorities should be for the next five years.

In relation to capital expenditure for 2025/26, the CE said that as before, confirmation from DEFRA had been received quite late, and commended the staff on the brilliance of being able to develop the projects, get the consents and deliver projects. One of these projects was the toilet improvements at Yarmouth Yacht Station, which the CE was very pleased with. The CE advised the Authority had spent most of the funds allocated and had returned a comparatively small sum of £44,000 to DEFRA which was unable to be spent prior to the deadline.

The CE provided an update on one project, the River Waveney pontoons at Castle Marsh, and was pleased to say the project had been granted planning consent by the Authority at the Planning Committee meeting held on Friday 10 May 2026.

Finally, the CE said the EDP had posted an article on the late payment of tolls. The CE remarked it had been an exceptional year in relation to toll collection, court proceedings had been issued to over one hundred people, of which fifty settled out of court and the others had been prosecuted. The CE said some people who had not paid tolls had limited resources, which the Authority had taken into account, but those that could afford to were wasting the Authorities time, energy and resources. The CE hoped that the attention brought by the article, in combination with new administrative charges, would reduce the occurrence of toll non-payment in the future.

A Member asked how the Authority would present the award of costs in the accounts. The Director of Resources said they would be included on the income line of the legal budget. The Member asked how cautions were issued for speeding at night as Rangers would not be on patrol. The Head of Ranger Services said the Authority investigated a number of witness statements received in relation to this vessel. In total, the Authority received over one hundred witness reports every year, all of which were investigated.

The Head of Governance said a poll would be sent to Members which would assess their availability for a workshop to discuss the Broads Plan. Members indicated they would be happy to attend.

The report was noted.

10. Income and expenditure

Members received the report of the Director of Resources. The Director of Resources said there were no further updates to the report, and no questions were presented by Members.

The report was noted.

11. Operations work programme – progress update

The Members received the report of the Head of Operations (HO). The HO said the Authority had not reached river sediment management targets set out at the beginning of the year and the report provided explanation for this. The HO highlighted high salinity amongst the causes that impacted the programme of works for longer than expected. The Authority had completed the Riverside Tree Management programme over the winter with one small area on the River Waveney being deferred to the next year. The HO said the piling installation project at Acle Bridge had stalled as contractors discovered the ground in the area was softer than predicted and asbestos sheets had been discovered. Consequently, the initial design was unfeasible, and a new design would be required to address these challenges. Finally, the redundant timber structure at Turntide Jetty had been removed and the movement of marker posts would take place when obstructive sediment could be cleared.

A Member expressed concern that the interruptions caused by salinity may become a regular occurrence and asked if any thought had been given to redesigning the dredging programme. The HO said the salinity issues at Hickling were unpredictable and not faced by the Authority before at this level. The persistence of salt through the winter created issues as activities were paused whilst conditions remained stressful for fish in the area. The HO said the Authority would need to examine the operations schedule if this was to become a continuous feature. The Authority carried out works at Hickling in the winter months to avoid disturbing Pymnesium algae in the summer months. The HO acknowledged the challenge of a shrinking working window should salinity issues persist in future.

A Member asked if monitoring of salinity on the Broads was sufficient. The HO replied that monitoring at Hickling had taken place before, during and after works. This had guided conversation with the Environment Agency (EA) regarding thresholds for fish safety. The HO stated the Thurne was moderately covered in terms of monitoring salinity with there being a monitoring point at Repps. The Member asked if the remainder of the Broads was sufficiently covered. The HO said the EA had a small network of salinity monitors that tracked live data but acknowledged the Broads did not have a wider network covering all the Broads as other organisations monitored salinity independently. The HO said water companies carried out monitoring in some areas and as such there was no large-scale live monitoring system that

covered the whole network. The Chief Executive (CE) believed that in terms of the Authority's dredge programme, the information provided by the EA combined with the Authority's own measurements was more than sufficient. The CE said it may be possible to have a further discussion with the EA about the trigger points and at what point could the Authority dredge, or not. There had been a suggestion that the Authority took a cautious approach to its dredging activities and the impact of dredging on fish.

The Member queried whether capital funds could still be used following delay to works at Acle Bridge. The HO said the piling had been purchased and project funding, which included the 24-hour mooring section, was split 50/50 with the navigation budget.

A Member sought clarification on the evidence that guided current salinity thresholds and questioned the impact that dredging would have on these levels. The HO said the Authority were in discussion with EA regarding the appropriate thresholds and said disturbance at sensitive times was another issue in relation to this. Dredging could force fish into areas of high salinity or trap them in areas with high aggregation that could impact oxygen levels, both of which could be detrimental to the health of fish on the Broads. The Member acknowledged that the Authority needed to conduct operations responsibly but would prefer the Authority to focus on activities that could take place and limit the expense on idle equipment. A number of Members agreed the current salinity limits may be too sensitive.

The report was noted.

12. 2025/26 Health and Safety Review and internal audit recommendations

The Members received the report of the Head of Safety Management (HSM). The HSM said the purpose of the report was to present the annual review of marine incidents in 2025/26 and the recommended audit programme for 2026/27.

Data from the report showed accidents remained relatively rare, with there being one fatality and seven individuals requiring hospitalisation, in connection with boating activities. The HSM remarked this was the lowest number in two decades. Incidence of vessel fires and explosion also remained minimal.

The HSM added there were seven fatalities not connected to boating activity. These figures included incidents where individuals entered the water either accidentally or intentionally, with some of these related to swimming. The Authority continued to emphasise the dangers of swimming in the Broads.

The Authority continued to monitor reports of slips, trips and falls as these were regularly featured on incident reports. Fortunately, in the incidents of accidental entry into the water, life jackets were in use which allowed those involved to exit the water and make a full recovery. The HSM concluded that the Broads waterways continue to provide a safe environment for families and visitors.

A Member applauded the Rangers and Dockyard for their continued emphasis on safety and the wearing of life jackets, however, the Member raised concern regarding an incident they had witnessed the previous week. The Member said they witnessed unsafe behaviour at Potter Heigham in which children were attempting to rock a rowboat. The children were standing in the boat whilst tilting the vessels in a manner that could have capsized the craft. Neither child was wearing a life jacket, whilst the father was watching from their hire boat. The Member said it was essential for the Authority to continue to emphasise the dangers of such incidents to ensure the public were well informed.

A Member sought clarification on the conditions of reporting incidents. The Member commented they were part of a large group that utilised the water for paddling activities and asked if each incident of entry to the water would need to be reported. The Member stated that not all entries in relation to the group's activities would be intentional and the group would not normally report this to the Authority but would record internally. Due to this, the Member believed occurrence of entries would be far higher than reported. The HSM acknowledged that not all incidences would have been reported and advised reporting was useful to the Authority as it enabled the study of trends. The Member sought advice on how to spread this message to similar groups that utilised the Broads. A Member suggested that there may be an issue on clarity between reporting in relation to controlled incidence of entry into the water and said not all entry in relation to water sports may be necessary.

A Member queried whether the Oulton Broad power boat racing had been cancelled for the remainder of the year. The Head of Safety Management said there was an ongoing investigation and East Suffolk Council (ESC) had been corresponding with the organisers. ESC still needed some questions to be answered further to be fully satisfied and then the potential of the activity resuming could be established. The Member believed the Committee needed to be cautious of navigation restrictions and commented they would like to see the Broads opened for this sport as soon as possible and sought the opinion of the Committee. The Chief Executive (CE) believed it was not appropriate for the Committee to form an opinion on this before all the facts were known. The CE stated the Authority should trust the judgement of ESC as the investigating Authority and emphasised the tragic loss of life of which was currently under investigation. The CE said the area of the Broads was open to navigation and restriction was only in place for a specific activity.

A Member asked if there were any engagement opportunities where safety awareness could be raised. A Member said hire businesses provided extensive safety inductions to their hirers which included safety videos and demonstrations. The Director of Delivery said the Authority engaged with the public each year at the Norfolk Show and further Ranger super safety days, in which blue light services were invited to attend.

A Member commented page 136 of the combined papers provided a useful guide as to whether an incident should be reported.

The report was noted.

13. Safety Management System review

The Members received the report of the Head of Safety Management (HSM). The HSM said the report introduced the revised version 10 of the Broads Authority Safety Management System (SMS). The HSM added the Maritime and Coast Guard Agency (MCA) Port Marine Safety Code, a nationally agreed standard for UK ports, harbours and marinas, was updated in 2025 to the Port Marine Facilities Safety Code (PMFSC). This change extended compliance to third party marinas and facilities in competent harbour authority areas which resulted in the Authority undertaking the large task of informing third party marinas, within the Broads, that they would need to develop their own code. The HSM said the Broads Authority had registered their SMS and safety code as compliant with the MCA. The window for this closed in March 2026 and would not open again until 2028.

A Member commented that references to Sites of Special Scientific Interest (SSSIs) were incorrectly termed Special Site of Scientific Interest in a number of places. The Member also sought clarification on the image presented on page 15 of the SMS (page 83 of the combined papers). The Member believed the label 'navigable river/channels' shown on the map of the Broads Authority Executive and Navigation Areas (figure 1) was not clear. The Member also noted the section which stated hire boats could not proceed through Mutford Lock and queried what would happen if a hire boat company was content for a hirer to pass the lock on one of their vessels.

A Member commented that they did not see any issue with the labelling of navigable river/channels on the stated image.

A Member said it would not be possible for hire boats to pass Mutford Lock as vessel insurance would end at Mutford Lock. As a result, no company would provide consent for one of their vessels to pass. A Member added that any vessel would likely need to be ABP (Associated British Ports) registered to pass through the harbour. It was also stated that hire boats did not meet the required category to pass Mutford Lock.

A Member asked if any briefings would need to take place regarding changes to the new SMS. The HSM said the report highlighted a number of key recommendations and training to duty holders would take place as per the recommendations.

The report was noted.

14. Lower tidal rivers channel management – marker post specifications

The Members received the report of the Head of Operations (HO). The HO said the report was brought to the Committee to seek opinion on a subset of marker posts which were not in an ideal position or colour in terms of channel marking safe navigation. The HO provided a presentation which displayed images of the marker post locations and highlighted those on the Lower Bure, for which comments were sought. The HO said this work would be a continuation of the successful work completed at Breydon and review would take place on a

post-by-post basis. The HO requested feedback on signage, marker posts and dredging in relation to navigation safety.

A Member recalled an incidence of a hire boat which had moored in an unsafe location that lacked signage. The vessel moored at what was an appealing mooring location at high water, however, the vessel listed entirely to one side when water levels changed. This incident required the inhabitants of the vessel to be airlifted from the craft. Fortunately, there were no injuries, and the only cost was financial. The Member believed that marker buoys were essential for safe navigation and asked that no markers be removed. The Member praised the work carried out by the Authority at Breydon and encouraged the Authority to continue to apply the principles and method used.

The HO sought further clarification as to whether the Member would prefer the two Environment Agency (EA) marker posts, to which specific attention had been drawn in the presentation, to remain in place. The Member said any marker that marked a hazard should remain and be clearly distinguishable.

A Member believed consistency was one of the most important factors in the review. The Member praised the work carried out at Breydon and said the principles used at the site should be utilised further in both directions of the navigation. The Member acknowledged the importance of clearly marking the navigable channel and added consistent dredging may be necessary in troublesome areas. The Member stated that navigation markers should not be the same colour as hazard markers and any hazards should be clearly marked.

A Member agreed with these comments and said that any marker posts that were incorrectly positioned would need to be moved as they could be misleading and create a hazard. The Member did not agree with the removal of marker posts and said navigation must be clearly marked.

A Member agreed with all the points raised but requested that international colour schemes be used if any repainting were to take place. The Head of Ranger Services said the Authority was able to define differences from international standards in the Safety Management System document. The Broads followed a traditional marking method that had been used for many years. Should the Authority change this and adopt international standards it would require the painting of all marker posts and adaptation of the Safety Management System document.

A Member added that some posts created confusion as certain green and red navigation markers were in areas which were clearly not navigable. The Member suggested these be painted yellow to identify the markers as a hazard. The Member suggested that there may be an insufficient number of posts on the Lower Bure but acknowledged there was warning signage in some areas that highlighted hazards to address this. The Member proposed this signage be extended if more posts were not added. The Member praised the work carried out at Breydon and hoped for a similar result with this review.

A Member suggested the IALA system be adopted as this was known to navigators, and stated tradition was an insufficient justification for preserving the current system. Regardless of

which system was used, a Member requested that the posts be consistent and easy for boaters to understand and follow.

The Chief Executive (CE) said it would have a detrimental impact to the landscape if the Lower Bure were to be filled with posts and a balance would need to be struck so that posts were placed in areas with the most need. The CE suggested the removal of any post that were poorly positioned and did not mark a navigable channel, including the old EA posts, and add posts in areas to mark hazards. A Member agreed with this and said justification would be needed for all posts. The Member favoured the current red and green colour scheme used for navigation posts and suggested remarking the whole system to IALA standards would be difficult and an unnecessary expense.

The Committee resolved to recommend the removal of unnecessary channel markers that served no purpose and created additional hazards, the addition of channel markers in strategic points which were underrepresented, to retain the existing colour scheme and to dredge where necessary to reinforce the navigable channel.

15. Potter Heigham Staithe re-piling and mooring space – options for the two existing small mooring cuts

The Members received the report of the Waterways Project Officer (WPO). The WPO said the report had been brought to the Navigation Committee to obtain feedback from the Members on the proposed options regarding implications on navigation.

A Member sought to provide useful context to the situation and said the dyke had been used for over 200 years and there were three in total. The left cut was used by day boats and the right was for short term loading only but was frequently blocked by contractor barges. The Member said there was a path linking the dykes with 200 nearby properties which was frequently impassable due to flooding. The Member emphasised the importance of the dykes as this frequently presented the only method for local users to load their vessels from nearby parked cars. Consequently, the Member was not in favour of removing the dykes and believed to do so would have a detrimental impact on luggage loading.

The Member shared a desire for a like for like replacement and expressed concern regarding eddies from larger vessels passing through the bridge. The Member thought this may present an issue if a pontoon were to be installed as limited protection from eddies would be provided and the structure could be unstable as a result. The Member believed further investigation would be required on the impact of this should the Authority seek to install a pontoon. The Member said it would be difficult for the community to lose access to a valuable resource should it be closed for an extended period whilst works take place. The Member hoped it may be possible to carry out a like for like replacement on one dyke at a time so that the other may remain open to the public.

A Member agreed with these sentiments and expressed that local opinion dictate that the dykes remained. The Member was not in favour of filling them in and preferred a like for like replacement. The Member did acknowledge that the installation of a pontoon would be

preferable to removal and advised the Parish Council would be discussing the matter at their next meeting. The Member expressed concern regarding the use of the dykes as a permanent mooring. The Head of Ranger Services said enforcement action in the area had been taken in the past.

A Member emphasised the historical significance of the Staithe as one of the few remaining on the system and commented that it regularly saw great use. The Member expressed a preference for the installation of a pontoon as this would be more accessible for wheelchair users.

A Member emphasised previous concerns that a pontoon may not be ideal due to eddies and further stated that the less attractive option to overstay commercial users be considered in the decision-making process. A Member believed there may be no cost-effective modelling to investigate the impact of eddies.

The Head of Operations thanked the Members for their feedback and asked if Members would be happy for the project to be funded entirely from the navigation budget or seek other sources of funding.

A Member commented funding for the project should be primarily sourced from the navigation budget but said they would be in favour of supplementing this if a source of funds could be found.

A Member asked if the steel pilings had been costed. The WPO said the sheets for like for like piling (option 5) had been costed at £180,000 whereas piling sheets for replacing the central peninsula with a pontoon (option 1) would cost £116,000. A Member believed maintenance on the pontoon would raise the projected cost over time, whereas like for like piling would last for 30 years and would not raise concern in relation to the impact of eddies.

A Member advised pontoon maintenance was not expensive and if installed correctly there would be no stability issues resulting from eddies.

The Chief Executive said the navigation budget was in the best place it had been for years due to the expense of national park capital funds on equipment that would have otherwise been taken from the navigation budget. As a result, the navigation budget had sufficient funds should it need to finance the project.

It was agreed by the Members that like for like piling (option 5) or the replacement of the central peninsula with a pontoon (option 1) were the only options acceptable. The Members unanimously rejected the options to fill in the dykes as this would be a great loss to the community.

16. Committee timetable of meetings 2026/27

Members received the report of the Head of Governance (HoG). The HoG asked Members to note the dates of meetings and highlighted the tolls briefing, which would be on 7 October 2026 and the annual site visit on 12 August 2026.

Please note these are draft minutes and will not be confirmed until the next meeting.

The HoG encouraged Members to attend any briefings and workshops they were invited to. The invite indicated that the session would be of benefit to them and would not otherwise be sent.

17. Other items of business

The Chair thanked the Chief Executive for his service to the Authority and congratulated him on what would be his last Navigation Committee meeting before retirement. This sentiment was echoed by the applause of the Officers and Members in attendance.

18. Date of next meeting

The next meeting of the Navigation Committee would be held on Thursday 3 September 2026 at Yare House, 62-64 Thorpe Road, Norwich, NR1 1RY commencing at 10am.

The meeting ended at 11:45am

Signed

Chairman

Please note these are draft minutes and will not be confirmed until the next meeting.

Appendix 1 – Declaration of interests: Navigation Committee, 16 April 2026

Member	Agenda/minute	Nature of interest
Mark Collins	13	Communication with NSBA regarding Safety Management Systems.
Bob Neate	15	Owner of property in Potter Heigham.
Harry Blathwayt	15	Ward member for Potter Heigham.
Leslie Mogford	15	Member for Repps with Bastwick. Located on the opposite side of the river to Potter Heigham.

Navigation Committee

03 September 2026
Agenda item number 5

Summary of actions and outstanding issues following discussions at previous meetings

Title	Meeting date	Lead officer	Summary of actions	Progress so far	Target date
Network Rail Swing Bridge £10 million refurbishment programme	19/10/2017	Rob Rogers	Network Rail Whole Life Strategy planning for swing bridges.	Historical updates (date range October 2019 to April 2024) have been removed. All historical updates can be found in previous versions of the Summary of Actions and Outstanding Issues available via the committee papers on the Broads Authority website. April 2024: Network Rail confirmed that the work to the Somerleyton and Reedham swing bridges was complete. Work included extensive brickwork repairs to reinforce the control boxes, a full upgrade to the electrical system, a full upgrade and replacement of the manual winch system to enable the bridge to be swung open manually by the bridge operator if there was a problem with the machinery, and replacement of the navigation lights. What was not clear was whether, as part of the scheme, the lifting equipment and jacks within the control box had been completed and the Authority was waiting to receive confirmation from Network Rail. Network Rail had been unable to go ahead with the Oulton swing bridge repairs as they were more substantial than first thought. May 2024: Network Rail have confirmed that they are continuing to look at ways in which, in the long term, they might be able to address the issue of the two Swing Bridge thermally expanding and not being operable in very hot weather. However, these are likely to entail structural works and will require additional funding, so they do not currently have a timeline for this. For the time being, they have instead undertaken a smaller, though still significant, set of works. Together with a consistent maintenance regime, these will prevent the bridges from deteriorating and make failures less likely. June 2024: As agreed in Navigation Committee meeting on 06/06/2024, historic updates have been removed up until April 2024 updates.	

Title	Meeting date	Lead officer	Summary of actions	Progress so far	Target date
				January 2026: Network Rail have advised they will be replacing the slew motor on Oulton Bridge. Due to this the bridge will be out of action at some point in February. Dates yet to be confirmed. March 2026: Refurbishment work on Oulton Bridge has been completed. September 2026: A separate report on Reedham Swing Bridge is on the agenda for the Navigation Committee meeting on 3 September 2026.	
Carrow Road Bridge Repairs	15/04/2021	Rob Rogers	Briefing provided at Navigation Committee meeting in April 2021, outlining Norfolk County Council's proposals for the repair of Carrow Road bridge. Further information is awaited from the County Council.	Historical updates (date range October 2019 to April 2024) have been removed. All historical updates can be found in previous versions of the Summary of Actions and Outstanding Issues available via the committee papers on the Broads Authority website. April 2024: It is understood that some repairs have been carried out and the bridge was fit for purpose at present. June 2024: No further update. As agreed in Navigation Committee meeting on 06/06/2024, historic updates have been removed up until April 2024 updates. August 2024: Norfolk County Council reported that repairs were due to take place to the Bridge on 22 August 2024. September 2024: The council carried out urgent repairs to the surface of the road. August 2025: Repairs were undertaken to the timber decking following an inspection which identified some defects in the bridge's timber. August 2026: Notice given that the bridge will be closed to all vehicular traffic between 19:00 and 05:00 each night from Monday 17 August to Saturday 22 August 2026 for repairs and maintenance work required to the bridge following a routine inspection and to minimise disruption the works will be carried out overnight. Should adverse weather conditions prevent the work from proceeding, it will be postponed and rescheduled to take place between Monday 21 September and Saturday 26 September 2026.	10/06/2021
Funding the waterways of the Broads National Park	11/01/2024	Sarah Cowley	To track the progress on making the case for central Government funding to support the maintenance of the Broads waterways.	January 2024: The paper was presented to the committee on 11 Jan. 2024 and received unanimous support to endorse the paper for adoption by the Broads Authority. On 26 Jan. 2024, the Broads Authority unanimously endorsed the paper and supported the Chair in writing to the Secretary of State for the Environment. March 2024: Funding paper sent to the Minister and a response received on 18 March. April 2024: As reported at the Navigation Committee on 11 April, the Minister confirmed that the Government remained committed to supporting the vital role Protected Landscapes play in protecting our	

Title	Meeting date	Lead officer	Summary of actions	Progress so far	Target date
				precious wildlife, and the importance they have for tourism, the regional economy, and public access. The Minister was optimistic that a more sustainable funding model for our Protected Landscapes could be developed. June 2024: As discussed at the Navigation Committee meeting held on 6 June 2024, the Chair would write to the Minister again following the General Election. August 2024: Broads Authority Chair has written to the new Minister. November 2024: No reply received from the Minister, however, the Chair and Chief Executive are trying to set up a meeting with the Minister in the near future to discuss the issue face-to-face. March 2025: No response to date. Officers raised the matter on 13 January as part of the Defra Annual Review. August 2025: Defra has provided the Authority with flexibility in the use of National Park capital funding. The Change Control Notice stated the following: “The capital grant and any income derived from the expenditure is to be treated as National Park income and must be used in furtherance of section 2(1)(a) and (b) of the Norfolk and Suffolk Broads Act 1988. Any such income may be applied to an expenditure that incidentally supports Section 2(1)(c) provided the primary aim of the expenditure remains the pursuit of Section 2(1)(a) and (b)”. Section 2(1) (b) of the Norfolk and Suffolk Broads Act states: <i>It shall be the general duty of the Authority to manage the Broads for the purposes of: (b) promoting opportunities for the understanding and enjoyment of the special qualities of the Broads by the public,</i> The argument accepted by Defra is that improving access to and from the water is one of the main ways the public enjoy the special qualities of the Broads. January 2026: Programme on track to spend capital funding. March 2026: Update on capital funding progress presented to Broads Authority, 27 February 2026. July 2026: An update on funding was provided to the Broads Authority on 24 July 2026.	
Haven Bridge	06/06/2024	Rob Rogers	The Great Yarmouth Ports Leisure Users meeting on 2 April had a long discussion regarding the problems with the Haven Bridge. There is a dispute between Peel Ports and Norfolk County Council regarding opening the bridge which is	June 2024: The Chief Executive has been in touch with the CEO at Norfolk County Council to help facilitate a way forward between the two parties - Norfolk County Council and Peel Ports. July 2024: Temporary arrangements agreed by Peel Ports and Norfolk County Council have allowed the bridge to open. The Monitoring	

Title	Meeting date	Lead officer	Summary of actions	Progress so far	Target date
			having an adverse impact on commercial and private boat owners based in the Broads.	Officer has written to the Great Yarmouth Port Authority reminding it of its statutory duties. August 2024: Response received from Great Yarmouth Port Authority and meeting to be arranged to discuss Haven Bridge. September 2024: Great Yarmouth Port Authority wrote to the Chief Executive to defer the meeting until they have had their AGM on 18 September. 14 November 2024: Meeting with users on lifting arrangements. Peel Ports proposed that charges be introduced for lifting the bridge and the Port Users Group would formulate a response to that proposal. January 2025: A letter, dated 19 December 2024, had been sent to the Port Users Group from Great Yarmouth Port Authority which indicated that the proposed lift charge would not be applied for 2025. The wider issue of the operation of the bridge and its lifting remained outstanding. March 2025: The Chief Executive and Monitoring Officer met with Peel Ports on 19 February and covered a range of issues. December 2025: Norfolk County Council has given notice that Haven Bridge would be closed for two weeks from 1 December 2025 to carry out further repairs which included the replacement of barriers and repairs to the paths, parapets, and all timber blocks on the bridge deck. August 2026: No updates to report.	
Boat Safety Scheme Compliance	04/09/2025	Bill Housden	Amend the Authority's Byelaws, to require a current Boat Safety Certificate to be held in respect of vessels, other than seagoing freight vessels, as a condition of using the navigation area and adjacent waters for the purposes of safety.	October 2025: Solicitors instructed to proceed with drafting byelaw. January 2026: Awaiting draft byelaw from solicitors. March 2026: Solicitors have provided advice on next steps, officers to meet and discuss. August 2026: Section 11 of the Broads Authority Act 2009 sets out what can be included in byelaws for registration of vessels: <i>"Upon registration an owner can be required to submit with his application evidence of compliance with the standards applicable to the vessel. Furthermore, where the Authority is satisfied that a vessel does not comply with the standards it can cancel the registration of that vessel. There is no power to include in the registration byelaws an offence of not holding a valid boat safety certificate, the only permissible action is to cancel the registration."</i>	

Date of report: 18 August 2026

Navigation Committee

03 September 2026

Agenda item number 6

Chief Executive's report and current issues

Report by Head of Governance on behalf of the Chief Executive

Purpose

To provide a briefing on significant matters relating to the maintenance and management of the waterways.

Broads Plan context

All strategic actions under Theme C: Maintaining and enhancing the navigation.

Contents

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1. Introduction

- 1.1. The Authority's Annual Meeting was held on 24 July 2026, at which Harry Blathwayt was re-elected as Chair for 2026/27 and Tristram Hilborn re-appointed as Vice-Chairman. On 7 August 2026, Tim Jickells and Tony Grayling have been re-elected as Chair and Vice-Chair of the Planning Committee.

- 1.2. On 12 August, ten Members visited various sites around the Broads to see how various grants had been spent. Members were treated to demonstrations of some of the new equipment purchased with the capital grant at Acle Bridge and the Dockyard, as well as some of the work being carried out at Buttles Marsh and Cary's Meadow.

2. Prosecutions for non-payment of Tolls 2025/26 - update

- 2.1. During the 2025/26 toll season 1,917 Notices of Contravention were received by the Collector of Tolls; 1,637 of these related to non-payment of tolls. Most Notices are resolved without the need for court action however 138 cases (59 more than in the previous year) were sent for prosecution. Of these 69 were proved, 6 are going to trial, 2 are awaiting a court hearing and 61 were withdrawn after the toll and legal costs had been paid in full.

The Tolls office issued over 900 enforcement letters and the Authority was awarded just over £45,000 in compensation and legal cost by the courts. Fines and victim surcharges totalled £32,000, fines are paid directly into the UK government's consolidated revenue fund and the money does not come to the Broads Authority.

3. Navigation patrolling and performance targets

- 3.1. The report of the use of powers by the rangers is displayed in Appendix 1 and reflects the busy period. Ranger issued a total of 1913 verbal warnings, 105 written warnings and 118 special directions over this period.
- 3.2. Appendix 2 shows the average navigation/countryside splits which are higher on the navigation side, as expected during the summer when patrolling is a priority.
- 3.3. There have been 3 successful prosecutions completed since the last report, the details of which are included in Appendix 5. All the offences were for overstaying on Broads Authority 24-hour moorings, reflecting this increasing issue.

4. Sunken and abandoned vessel update

- 4.1. A summary of the notices issued relating to abandoned, sunken and unserviceable vessels is set out in Appendix 3.
- 4.2. Since the last meeting in March, a total of 31 notices were issued, which marks a sharp increase in previous figures. This highlights the increasing problem of non-compliant vessels, a trend which is mirrored nationally. Of the notices, 26 were issued to vessels believed to be abandoned, with 4 unserviceable vessel notices and 1 sunken vessel notice issued. Of the 26 abandoned vessel notices, 7 vessels were registered after receiving the notice. The remaining vessels have either been removed from the navigation or are in the process of being removed.
- 4.3. For vessels found on the system without any prior registered owner, before an abandoned vessel notice is issued, a letter setting out the requirement to register the

vessel is affixed to the vessel. This gives the owner 28 days to comply. Of the 33 letters issued since April, 18 vessels were subsequently registered with the remaining 15 being issued an abandoned vessel notice.

5. Planning enforcement update

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

Author: Lorraine Taylor

Date of report: 18 August 2026

Background papers: none

[Broads Plan](#) strategic actions: Theme C

Appendix 1 – Rangers exercise of powers analysis

Appendix 2 – Ranger duties total time allocated and actual days

Appendix 3 – Sunken and abandoned vessels current position as at 11 August 2026
11/08/2026

Appendix 4 – Prosecutions dealt with in court for non-payment of tolls since 16/04/2026

Appendix 5 – Prosecutions dealt with in court for navigation offences since 25/03/2026
25 March 2026

Appendix 1 – Rangers exercise of powers analysis 1 April – 5 August 2026

Table 1

Verbal warnings	Wroxham launch Wroxham and upper Bure	Irstead launch Ant	Ludham launch Hickling, Potter Heigham, upper Thurne	Ludham launch 2 lower Thurne and lower Bure	Norwich launch Norwich and upper Yare	Hardley Launch Reedham, Chet and middle Yare	Burgh St Peter launch Oulton Broad and upper/middle Waveney	Breydon launch Breydon water, lower Waveney and Yare
Care and caution	12	5	13	13	12	15	12	1
Speed	732	314	26	227	87	73	32	24
Other	40	28	6		69	49	13	110

Table 2

Written warnings	Wroxham launch	Irstead launch	Ludham launch	Ludham launch 2	Norwich launch	Hardley Launch	Burgh St Peter launch	Breydon launch
Care and caution		1			1	1		
Speed					3			
Other	16		2	5	3	27	29	17
Special directions				20	50			48

Table 3

Launch patrols	Wroxham launch	Irstead launch	Ludham launch	Ludham launch 2	Norwich launch	Hardley Launch	Burgh St Peter launch	Breydon launch
Launch staffed by ranger	123	96	83	88	90	77	60	123
Volunteer patrols	0	4	0	0	0	0	3	0
IRIS reports	4	3	1	5	7	1	1	12

Table 4

Broads Control total calls

Contact method	Number of calls
Telephone	9396
VHF	877
Total	10273

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

Table 1

Broads Authority corporate duties

Work area	Annual allocation (days)	Actual days to date
Training	112	27.23
Broads Control	401	135.57
Team meetings, work planning	243	93.51
Partnership working	61	1.96
Assisting other sections	74	19.80
Billets and boatsheds	35	4.32
Launch – general	0	.61
Trailers - general	0	0
Vehicle maintenance	0	3.24
Other equipment repair	0	2.30
Total	926	288.55

Table 2

Navigation duties

Work area	Annual allocation (days)	Actual days to date
Patrolling	16660	880.74
Escorts	37	5.81
Prosecution files	0	4.19
Bankside tree management	80	5.74
Obstruction removal	42	24.19
Raising & Removing Wrecks	0	12.64
Channel markers and buoys	25	7.50
Signs and boards maintenance	43	8.78
Adjacent waters	86	27.36
Reactive mooring maintenance	100	12.77
Total	2073	989.72

Table 3

Conservation, recreation, countryside maintenance

Work area	Annual allocation (days)	Actual days to date
Fen management	168	1.15
Lake, riverbank restoration	99	1.01
Invasive species control	42	0.27
Other conservation work	168	4.19
Pollution response	0	7.09
Visitor site maintenance	188	81.01
Public Engagement	110	33.45
Public footpath work	69	2.30
Education work	38	8.78
Total	882	139.25

Team total from 1st April 2026 up to 05 August 2026

Percentage Navigation: 88%

Percentage National Park: 12%

Appendix 3 – Sunken and abandoned vessels current position as at 11 August 2026

Description	Location found	Action	Notice affixed	Result
Motor Cruiser	Old River Yare, Thorpe	Vessel sunk at owners moorings	No	Not affecting the navigation
Motor Vessel	River Yare, Brundall	Believed Abandoned	Yes	Vessel recovered
Auxiliary Yacht	River Waveney, Burgh St Peter	Believed Abandoned	Yes	Vessel recovered
Motor Vessel	Lower Bure	Vessel sunk at mooring	Yes	Vessel recovered
Houseboat	River Ant, Sutton	Believed Abandoned	Yes	Vessel recovered
Auxiliary Yacht	River Waveney, Worlingham	Unserviceable vessel	Yes	Vessel recovered
Motor Vessel	River Ant	Believed Abandoned	Yes	Owner registered
Motor Vessel	River Ant, Sutton	Believed Abandoned	Yes	Vessel recovered
Motor Vessel	River Ant, Sutton	Believed Abandoned	Yes	Vessel recovered
Motor Vessel	River Waveney	Believed Abandoned	Yes	Vessel recovered
Motor Vessel	River Ant	Believed Abandoned	Yes	Owner registered
Auxiliary Yacht	River Waveney, Peto's Marsh	Believed Abandoned	Yes	Vessel recovered
Motor Vessel	River Yare, Norwich	Believed Abandoned	Vessel registered at point of issue	Owner registered
Motor Vessel	River Waveney, Beccles	Unserviceable vessel	Yes	Vessel recovered
Houseboat	Fleet Dyke	Believed Abandoned	Yes	Vessel recovered

Description	Location found	Action	Notice affixed	Result
Houseboat	River Yare, Thorpe	Believed Abandoned	Vessel registered at point of issue	Owner registered
Sailing	River Thurne, West Somerton	Believed Abandoned	Yes	Vessel recovered
Motor Vessel	Upton Dyke	Believed Abandoned	Yes	Vessel recovered
Sailing	River Waveney	Believed Abandoned	Yes	Vessel recovered
Auxiliary Yacht	River Waveney	Believed Abandoned	Yes	Vessel recovered
Motor Vessel	River ant, Sutton Broad	Believed Abandoned	Yes	Working with owner to make compliant
Motor Vessel	River Thurne, Dungeon's corner	Unserviceable vessel	Yes	Vessel recovered
Sailing	Waxham Cut, Brograve Mill	Believed Abandoned	Yes	Vessel recovered
Sailing	River Waveney	Believed Abandoned	Yes	Vessel recovered
Motor Vessel	River Waveney, St Olaves	Believed Abandoned	Yes	Owner registered
Motor Vessel	River Waveney, St Olaves	Believed Abandoned	Yes	Owner registered
Sailing	River Ant, Sutton	Believed Abandoned	Yes	Vessel recovered
Motor Vessel	River Chet	Believed Abandoned	Yes	Owner registered
Kayak	Lower Bure, Great Yarmouth	Believed Abandoned	Yes	Notice expiry date not yet reached
Dinghy	Womack Water	Believed Abandoned	Yes	Notice expiry date not yet reached

Description	Location found	Action	Notice affixed	Result
Motor Vessel	Womack Water	Unserviceable vessel	Yes	Notice expiry date not yet reached
Dinghy	River Yare, Thorpe St Andrew	Believed Abandoned	Yes	Notice expiry date not yet reached

Appendix 4 – Prosecutions dealt with in court for non-payment of tolls since 25 March 2026

Type of vessel	Fined	Costs awarded	Victim surcharge	Compensation
Auxiliary Yacht	£440.00	£269.78	£176.00	£260.46
Motorboat	£440.00	£245.98	£176.00	£234.72
Auxiliary Yacht	£440.00	£269.78	£176.00	£164.95
Motorboat	£440.00	£271.35	£176.00	£743.28
Motorboat	£120.00	£307.05	£48.00	£254.28
Motorboat	£440.00	£243.95	£176.00	£352.08
Motorboat	£440.00	£271.35	176.00	£347.28
Motorboat	£220.00	£556.00	£88.00	£293.40
Motorboat	£440.00	£344.55	£176.00	£332.52
Auxiliary Yacht	£120.00	£344.10	£ 48.00	£185.30
Motorboat	£440.00	£393.05	£176.00	£567.24
Motorboat (Toll and navigation offences – see Appendix 5)	£1,100.00	£1,262.28	£440.00	£665.04
Motorboat	£220.00	£554.70	£88.00	£260.46

Appendix 5 – Prosecutions dealt with in court for navigation offences since 25 March 2026

Type of vessel	Offence	Fined	Costs awarded	Victim surcharge	Compensation
Motor	Overstaying	£180	£220.15	£72	n/a
Motor	Overstaying, Failing to Comply	£880	£871	£352	n/a
Motor	Overstaying, Failing to Comply	£1100	£1262.28	£440	£665.04

Navigation Committee

03 September 2026

Agenda item number 7

Annual Income and Expenditure 2025/2026

Report by Director of Resources

Purpose

To inform the Committee of the summary of the Authority's income and expenditure for 2025/26 financial year, analysed between General (National Park) and Navigation funds. Original and Latest Available Budget information is provided for comparison.

Contents

1.	Introduction	1
2.	Actual income and expenditure 2025/26	1
3.	Earmarked reserves	2
4.	Summary	3
	Appendix 1 – General and Navigation income and expenditure 2025/26	4

1. Introduction

- 1.1. The Broads Act 2009 requires the Authority to prepare a report as soon as reasonable possible after the end of each financial year describing the navigation income received by it and the navigation expenditure incurred by it in that year.

2. Actual income and expenditure 2025/26

- 2.1. The tables in Appendix 1 sets out the Authority's income and expenditure attributed to General (National Park Grant) and Navigation funds for the financial year ended 31 March 2026. To the extent that they are included within the Authority's Statement of Accounts, these figures are subject to audit and formal approval by the Authority's

external auditors. For comparative purposes, the Original and Latest Available Budget (LAB) figures are also shown. This information is published on the Authority's website.

- 2.2. The actual outturn for 2025/26 was a surplus of £83,849 for Navigation compared with a budgeted LAB deficit for the year of £67,605. The original budget was for a deficit of £8,471. The final forecast outturn was a surplus of £48,956.
- 2.3. Total core income for the year was £4,732,140, which was £5,840 above budget, principally due to the favourable variance of £49,978 within investment income which offset the adverse variances within Hire (£36,700), Private Craft (£10,866) and Short Visit (£5,030). There continued to be small favourable variance within Other Toll income (£8,458), £6,225 of this related to the introduction of administrative charges for the issuing of 249 late payment reminders.
- 2.4. Other income has performed above budget predictions by £22,227. This was mainly due to staff recharges at partner sites.
- 2.5. Total net navigation expenditure in 2025/26 was £4,648,290, which was £145,615 below the budget. This was mainly due to savings in staff costs following the restructure and timing differences on vacancies.

3. Earmarked reserves

- 3.1. The earmarked reserves have funded the following expenditure:
 - Property reserve includes the rental income from land at Oulton Broad (£3,847) and the annual contribution to Mutford Lock (£25,000).
 - Plant, Vessels and Equipment reserve included a small petrol mower and 50% of the hire of the Robocut flail (£1,497). This has been offset of by the sale proceeds from the sale of old equipment (£10,422) and the annual contributions to the vehicle, equipment and launch replacements (£148,600).
 - Premises reserve includes the costs for the Dockyard piling project (£5,973). This has been offset by the annual contributions to the reserve (£27,300).
 - Computer Software includes the development of the Ranger application following the upgrade to the cloud-based tolls system (£3,025) and the upgrade to the finance cloud-based system (£1,667). This is offset by the annual contribution to the reserve (£9,600).
- 3.2. After the year end transfer of interest the closing position on the earmarked reserves is as follows:

Table 1

Navigation Earmarked Reserves

Reserve name	Balance at 1 April 2025 £	In-year movements £	Balance at 31 March 2026 £
Property	(506,246)	(84,568)	(590,814)
Plant, Vessels and Equipment	(501,988)	(157,525)	(659,513)
Premises	(228,315)	(21,327)	(249,642)
Computer Software	(104,073)	(4,908)	(108,981)
Total	(1,340,622)	(268,328)	(1,608,950)

4. Summary

- 4.1. The total Navigation surplus for 2025/26 was higher than the budgeted and the forecast surplus. The main reason for the variance between the forecast and actual position was the decreased expenditure set out in paragraph 2.5.
- 4.2. Whilst investment income has exceeded expectations due to interest rates implemented by the Bank of England remaining higher than expected these rates are expected to drop in the future, much closer to their forecast level of inflation of 2%. This means that the level of return in future years may reduce.
- 4.3. 2025/26 sees the fourth repayment of £50,000 between the Navigation and National Park Reserve which means the balance on the Navigation Reserve at the end of 2025/26 is £557,985, this is above the minimum 10% at 11.9%. However, it should be noted that as the £50,000 per annum transfer back to National Park, continues in 2026/27, alongside the planned expenditure in the Financial Strategy, this will reduce the Reserve down to 11.2%. This will be refined later this year when the level of tolls for 2027/28 is considered.

Author: Emma Krelle

Date of report: 14 August 2026

Appendix 1 – General and Navigation income and expenditure 2025/26

Appendix 1 – General and Navigation income and expenditure 2025/26

The Broads Authority Act 2009 requires the Authority to prepare a report as soon as reasonably possible after the end of each financial year describing the navigation income received by it and the navigation expenditure incurred by it in that year. The table below sets out the Authority's income and expenditure attributed to general (National Park Grant) and navigation funds for the financial year ended 31 March 2026. These figures are derived from the annual Statement of Accounts which is subject to audit and formal approval by the Authority's external auditors, Ernst & Young (EY). For comparative purposes, the final approved budget figures are also shown.

Further details are available on request from the Director of Resources, Yare House, 62-64 Thorpe Road, Norwich NR1 1RY or by email from emma.krelle@broads-authority.gov.uk.

The Draft Statement of Accounts for 2025/26 audit by EY to started on 13 July 2026 and will run until September. Once the audit has been completed the final version will be presented to the next available Broads Authority.

Table 1

Income

Income Type	Original Budget General £	Original Budget Navigation £	Original Budget Consolidated £	Latest Available Budget General £	Latest Available Budget Navigation £	Latest Available Budget Consolidated £	Actual Income General £	Actual Income Navigation £	Actual Income Consolidated £
National Park Grant	(3,414,078)	0	(3,414,078)	(4,574,078)	0	(4,574,078)	(4,423,288)	0	(4,423,288)
Hire Craft Tolls	0	(1,489,000)	(1,489,000)	0	(1,489,000)	(1,489,000)	0	(1,452,300)	(1,452,300)
Private Craft Tolls	0	(3,057,000)	(3,057,000)	0	(3,057,000)	(3,057,000)	0	(3,046,134)	(3,046,134)
Short Visit Tolls	0	(63,540)	(63,540)	0	(63,540)	(63,540)	0	(58,510)	(58,510)
Other Toll income	0	(33,260)	(33,260)	0	(33,260)	(33,260)	0	(41,717)	(41,717)
Investment income	(55,000)	(55,000)	(110,000)	(83,500)	(83,500)	(167,000)	(133,478)	(133,478)	(266,957)
Total Income	(3,469,078)	(4,697,800)	(8,166,878)	(4,657,578)	(4,726,300)	(9,383,878)	(4,556,767)	(4,732,140)	(9,288,906)

Table 2

Delivery

Expenditure Type	Original Budget General £	Original Budget Navigation £	Original Budget Consolidated £	Latest Available Budget General £	Latest Available Budget Navigation £	Latest Available Budget Consolidated £	Actual Expenditure General £	Actual Expenditure Navigation £	Actual Expenditure Consolidated £
Construction & Maintenance Salaries	730,204	984,776	1,714,980	732,573	988,397	1,720,970	685,411	909,988	1,595,399
Equipment, Vehicles & Vessels	203,310	474,390	677,700	203,310	474,390	677,700	144,096	336,223	480,319
Water Management	5,500	95,780	101,280	5,500	95,780	101,280	3,428	85,469	88,897
Land Management	118,985	0	118,985	118,985	0	118,985	98,816	0	98,816

Expenditure Type	Original Budget General £	Original Budget Navigation £	Original Budget Consolidated £	Latest Available Budget General £	Latest Available Budget Navigation £	Latest Available Budget Consolidated £	Actual Expenditure General £	Actual Expenditure Navigation £	Actual Expenditure Consolidated £
Practical Maintenance	130,640	427,000	557,640	113,614	465,025	578,639	46,794	389,990	436,785
Waterways & Recreation Strategy	26,250	32,650	58,900	174,352	32,660	207,012	153,720	16,635	170,354
Rangers Salaries	199,272	797,088	996,360	199,466	797,864	997,330	196,565	786,261	982,827
Ranger Services	9,550	344,200	353,750	9,550	419,200	428,750	8,547	246,232	254,779
Safety	42,894	99,336	142,230	43,116	99,854	142,970	44,878	107,821	152,698
Development Management	693,391	10,220	703,610	689,551	10,220	699,770	625,906	10,093	635,999
Project Funding	13,650	1,350	15,000	13,650	1,350	15,000	13,605	1,346	14,950
Operational Premises	105,547	196,993	302,540	105,547	196,993	302,540	73,550	127,338	200,888
Management & Admin	64,528	96,792	161,320	63,920	95,880	159,800	66,079	99,119	165,198
Delivery Income	(318,045)	(29,765)	(347,810)	(451,137)	(67,790)	(518,927)	(501,030)	(87,592)	(588,623)
Total Delivery	2,025,676	3,530,809	5,556,485	2,021,996	3,609,823	5,631,819	1,660,363	3,028,922	4,689,285

Table 3
Resources

Expenditure Type	Original Budget General £	Original Budget Navigation £	Original Budget Consolidated £	Latest Available Budget General £	Latest Available Budget Navigation £	Latest Available Budget Consolidated £	Actual Expenditure General £	Actual Expenditure Navigation £	Actual Expenditure Consolidated £
National Park Grant	0	0	0	1,385,058	0	1,385,058	1,234,268	0	1,234,268
Finance & Insurance	313,234	352,476	665,710	335,421	355,259	690,680	336,915	360,253	697,168
Premises Head Office	95,700	49,300	145,000	99,728	49,300	149,028	99,892	49,251	149,143
Collection of Tolls	0	236,570	236,570	0	236,610	236,610	0	230,423	230,423
ICT	299,555	239,036	538,591	299,555	239,036	538,591	240,537	213,402	453,939
Asset Management	64,747	80,293	145,040	64,747	80,293	145,040	59,131	81,973	141,104

Expenditure Type	Original Budget General £	Original Budget Navigation £	Original Budget Consolidated £	Latest Available Budget General £	Latest Available Budget Navigation £	Latest Available Budget Consolidated £	Actual Expenditure General £	Actual Expenditure Navigation £	Actual Expenditure Consolidated £
Strategy & Projects Salaries	252,432	24,868	277,300	252,432	24,868	277,300	258,172	24,675	282,847
Biodiversity Strategy	8,520	0	8,520	8,520	0	8,520	14,682	0	14,682
Strategy & Projects	50,342	0	50,342	286,143	0	286,143	590,055	(5,971)	584,084
Human Resources	92,934	85,786	178,720	93,714	86,506	180,220	91,463	84,427	175,890
Volunteers	51,137	18,914	70,050	51,137	18,914	70,050	49,759	18,404	68,164
Resources Income	(136,678)	(5,135)	(141,813)	(360,491)	(5,135)	(365,626)	(750,187)	(3,279)	(753,466)
Total Resources	1,191,469	1,124,770	2,316,240	2,615,510	1,128,314	3,743,824	2,271,968	1,073,822	3,345,790

Table 4

Chief Executive

Expenditure Type	Original Budget General £	Original Budget Navigation £	Original Budget Consolidated £	Latest Available Budget General £	Latest Available Budget Navigation £	Latest Available Budget Consolidated £	Actual Expenditure General £	Actual Expenditure Navigation £	Actual Expenditure Consolidated £
Legal	60,000	40,000	100,000	60,000	40,000	100,000	64,265	68,531	132,795
Governance	93,315	118,765	212,080	90,169	114,761	204,930	85,368	108,650	194,017
Communications	296,920	100,510	397,430	301,654	99,556	401,210	251,811	76,772	328,583
Visitor Centres & Yacht Stations	249,535	376,995	626,530	313,821	375,159	688,980	314,049	373,828	687,878
Chief Executive	84,596	55,394	139,990	102,725	67,265	169,990	103,475	67,812	171,287
Chief Executive Income	(107,290)	(158,960)	(266,250)	(181,090)	(158,960)	(340,050)	(199,146)	(163,241)	(362,386)
Total Chief Executive	677,077	532,703	1,209,780	687,280	537,780	1,225,060	619,822	532,352	1,152,174

Table 5

Projects and Corporate Items

Expenditure Type	Original Budget General £	Original Budget Navigation £	Original Budget Consolidated £	Latest Available Budget General £	Latest Available Budget Navigation £	Latest Available Budget Consolidated £	Actual Expenditure General £	Actual Expenditure Navigation £	Actual Expenditure Consolidated £
Heritage Lottery Fund	0	0	0	0	0	0	(11,680)	0	(11,680)
Apprenticeship Levy	4,284	4,116	8,400	4,284	4,116	8,400	3,872	3,720	7,592
Redundancy costs	0	0	0	0	0	0	41,750	7,368	49,117
Total Project and Corporate Items	4,284	4,116	8,400	4,284	4,116	8,400	33,942	11,088	45,030

Table 6

Contributions from earmarked reserves

Expenditure Type	Original Budget General £	Original Budget Navigation £	Original Budget Consolidated £	Latest Available Budget General £	Latest Available Budget Navigation £	Latest Available Budget Consolidated £	Actual Expenditure General £	Actual Expenditure Navigation £	Actual Expenditure Consolidated £
Property	0	(28,000)	(28,000)	(141,796)	(28,000)	(169,796)	(62,987)	3,847	(59,140)
Plant, Vessels & Equipment	(61,500)	(343,500)	(405,000)	(61,500)	(343,500)	(405,000)	3,825	8,925	12,750
Premises	(44,040)	(92,960)	(137,000)	(48,068)	(92,960)	(141,028)	(6,847)	(5,973)	(12,820)
Planning Delivery Grant	(99,000)	0	(99,000)	(210,471)	0	(210,471)	(71,488)	0	(71,488)
Heritage Lottery Fund	0	0	0	0	0	0	11,421	0	11,421
Upper Thurne	0	0	0	0	0	0	932	0	932
Catchment Partnership	(13,040)	0	(13,040)	(13,040)	0	(13,040)	(8,289)	0	(8,289)
Medium Term Planning	(42,952)	0	(42,952)	(42,952)	0	(42,952)	(41,377)	0	(41,377)
Computer Software	(3,384)	(21,667)	(25,051)	(3,384)	(21,667)	(25,051)	(3,384)	(4,692)	(8,076)
Property	0	(28,000)	(28,000)	(141,796)	(28,000)	(169,796)	(62,987)	3,847	(59,140)
Total Contributions from reserves	(263,916)	(486,127)	(750,043)	(521,211)	(486,127)	(1,007,338)	(178,194)	2,106	(176,088)

Table 7
Net (Surplus)/Deficit

Expenditure Type	Original Budget General £	Original Budget Navigation £	Original Budget Consolidated £	Latest Available Budget General £	Latest Available Budget Navigation £	Latest Available Budget Consolidated £	Actual Expenditure General £	Actual Expenditure Navigation £	Actual Expenditure Consolidated £
Grand Total	165,512	8,471	173,984	150,281	67,605	217,887	(148,865)	(83,849)	(232,715)

Navigation Committee

03 September 2026

Agenda item number 8

Navigation income and expenditure 1 April to 31 July 2026 actual and 2026/27 forecast outturn

Report by Director of Resources

Purpose

To present the actual Navigation income and expenditure for the four-month period to 31 July 2026 and provide a forecast of the projected expenditure at the end of the financial year (31 March 2026).

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1. Introduction

- 1.1. This report gives a summary of the income and expenditure for the Navigation budget up until 31 July, any amendments to the Latest Available Budget (LAB), Forecast Outturn (predicted year end position) and the movements on the earmarked reserves.

2. Overview of actual income and expenditure

Table 1

Actual Navigation income and expenditure by Directorate to 31 July 2026

Directorate	Profiled Latest Available Budget £	Actual income and expenditure £	Actual variance £
Income	(4,118,040)	(4,233,357)	+ 115,317
Delivery	1,332,358	1,238,988	+ 93,370
Resources	451,348	434,059	+ 17,289
Chief Executive	195,954	181,759	+ 14,195
Projects, Corporate Items and Contributions from Earmarked Reserves	(116,208)	(25,311)	- 90,897
Net (Surplus) / Deficit	(2,254,588)	(2,403,862)	+ 149,274

- 2.1. Core Navigation income is above the profiled budget at the end of month four. The overall position as at 31 July 2026 is a favourable variance of £149,274 or a 6.62% difference from the profiled LAB. This is principally due to:
- An overall favourable variance of £115,317 within toll income:
 - Hire Craft Tolls is £58,899 above the profiled budget.
 - Private Craft Tolls is £45,373 above the profiled budget.
 - Short Visit and Other Toll income is £3,433 above the profiled budget.
 - Investment income is £7,612 above the profiled budget.
 - An underspend within Delivery relating to:
 - Construction, Maintenance and Ecology salaries is £30,876 under the profiled budget due to delays in the pay award being negotiated with the Unions and timing differences on the new posts, including the apprentices who will not start until September.

- Equipment, Vehicles and Vessels is £27,330 above the profiled budget due to a new wire rope for the Hitachi crane and the fen harvester flail head needing some unplanned repairs. Tools and equipment is also ahead due to an expansion of our Hand Arm Vibration Syndrome (HAVS) metering capabilities, so there are more units for staff to use and track HAVS.
- Water Management is £10,453 above the profiled budget due to a timing difference on equipment hire, consultancy and professional fees. This has been partially offset by an underspend in contractor services.
- Practical Maintenance is £23,697 under the profiled budget due to a timing difference on contractor services.
- Ranger Services is £82,478 under the profiled budget due to a timing difference on the replacement Ranger launch and salaries. The timing difference on the salaries relates to the delays in the pay award being negotiated with the Unions.
- An underspend within Resources relating to:
 - Finance and Insurance is £10,757 under the profiled budget due to a saving following the insurance tender.
 - Head Office is £10,648 above the profiled budget due to a timing difference on the lease billing.
- An underspend within Chief Executive relating to due to small number of underspends across several budgets.
- An adverse variance within reserves relating to:
 - Property is above the profiled budget due to increased income from rental at Mutford Lock and timing differences on the gate repairs.
 - Plant, Vessels and Equipment is above the profiled budget due to the timing difference on the Ranger launch replacement.

2.2. The charts at Appendix 1 provide a visual overview of actual income and expenditure compared with both the original budget and the LAB.

3. Latest Available Budget

3.1. The Authority's income and expenditure is monitored against the Latest Available Budget (LAB) for 2026/27. The LAB is based on the original budget for the year, with adjustments for known and approved budget changes such as carry-forwards and budget virements. Full details of movements from the original budget are in Appendix 2.

Table 2

Adjustments to Navigation LAB

Item	Authorisation reference	Amount £
Original budget 2026/27	Broads Authority 27/02/2026 Agenda item number 10	(74,995)
Carry forwards	Broads Authority 15/05/2026 Agenda item number 10	5,459
Budget adjustments (salary assumptions, interest rate improvements, pool vehicles, insurance and visitor services income)	Broads Authority 15/05/2026 Agenda item number 10	(7,174)
LAB as at 31 July 2026	n/a	(76,210)

- 3.2. The LAB therefore provides for a navigation surplus of £76,210 in 2026/27 as at 31 July 2026.

4. Overview of forecast outturn 2026/27

- 4.1. Budget holders have been asked to comment on the expected income and expenditure at the end of the financial year in respect of all budget lines for which they are responsible.
- 4.2. As at the end of July 2026, the forecast indicates there has been no change compared to the LAB:
- The total forecast income is £4,765,354.
 - Total expenditure is forecast to be £4,674,144.
 - The resulting surplus for the year is forecast to be £91,210.
- 4.3. The forecast outturn reflects the following changes from the LAB as shown in Table 3. The forecast surplus represents a favourable variance of £15,000 against the LAB.

Table 3

Adjustments to Forecast Outturn

Item	Amount £
Forecast outturn surplus as per LAB	(76,210)
Increase to Investment income	(15,000)
Forecast outturn surplus as at 31 July 2026	(91,210)

5. Reserves

Table 4

Navigation Earmarked Reserves

Reserve name	Balance at 1 April 2026 £	In-year movements £	Current reserve balance £
Property	(619,098)	(126,922)	(746,020)
Plant, Vessels and Equipment	(691,086)	(134,416)	(825,502)
Premises	(261,593)	(26,640)	(288,233)
Computer Software	(114,198)	(9,600)	(123,798)
Total	(1,685,975)	(297,578)	(1,983,553)

- 5.1. As well as the annual contributions to the earmarked reserves the Property reserve contains the income from the land rental at Oulton Broad. The Plant, Vessels and Equipment has funded the new engine for the Spirit of Breydon ranger launch.

6. Conclusion

- 6.1. The forecast outturn position for the year suggests a surplus within the Navigation budget, which would result in a Navigation Reserve balance of approximately £649,000 at the end of 2026/27 (before any year-end adjustments). This would mean the Navigation Reserve would be above the recommended 10% at 13.9%. Year-end transfers of interest to the earmarked reserves and the final repayment of the National Park loan will mean it will fall to approximately 11.3%. This will be highly dependent on the level of interest received.

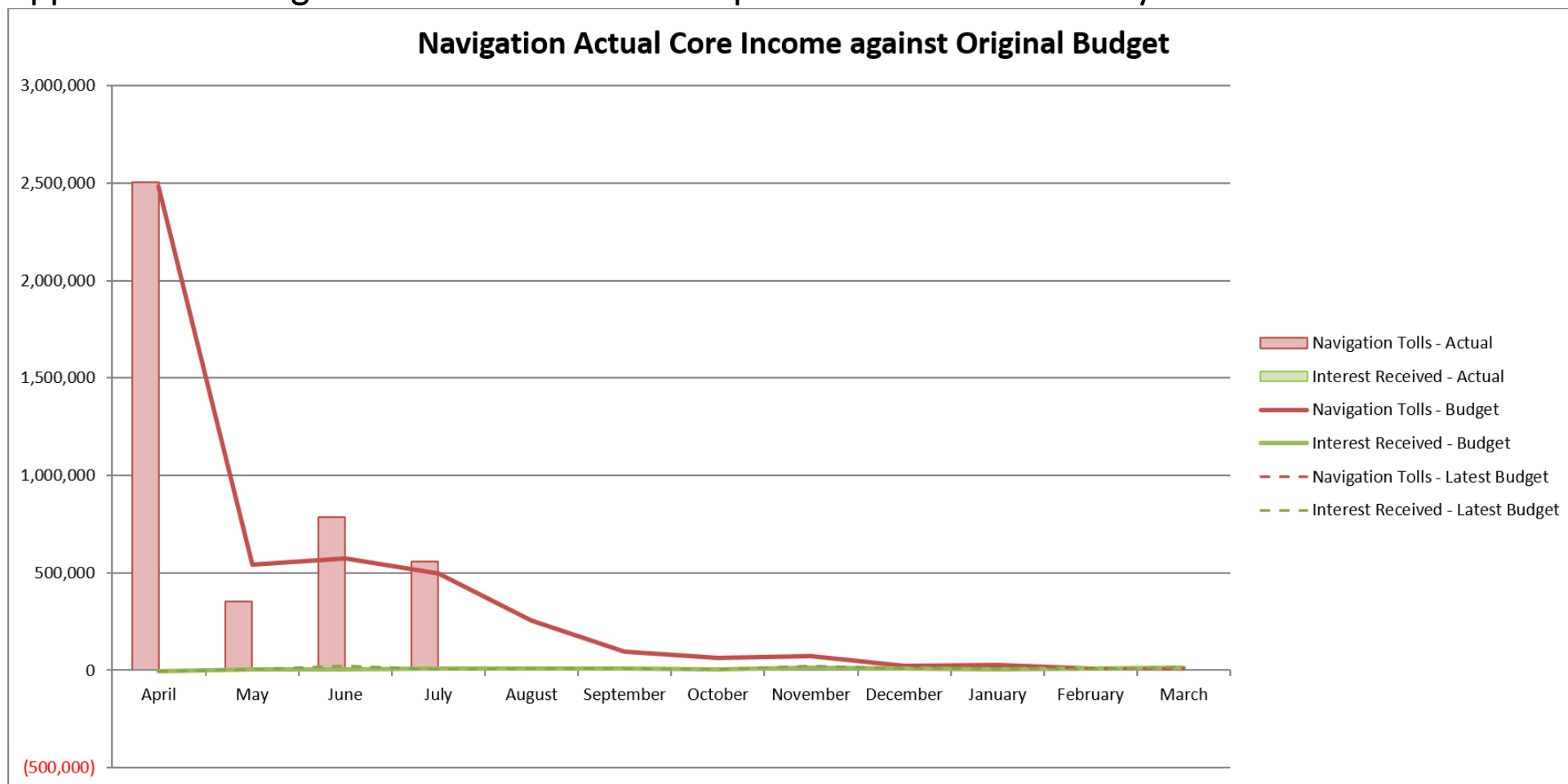
Author: Emma Krelle

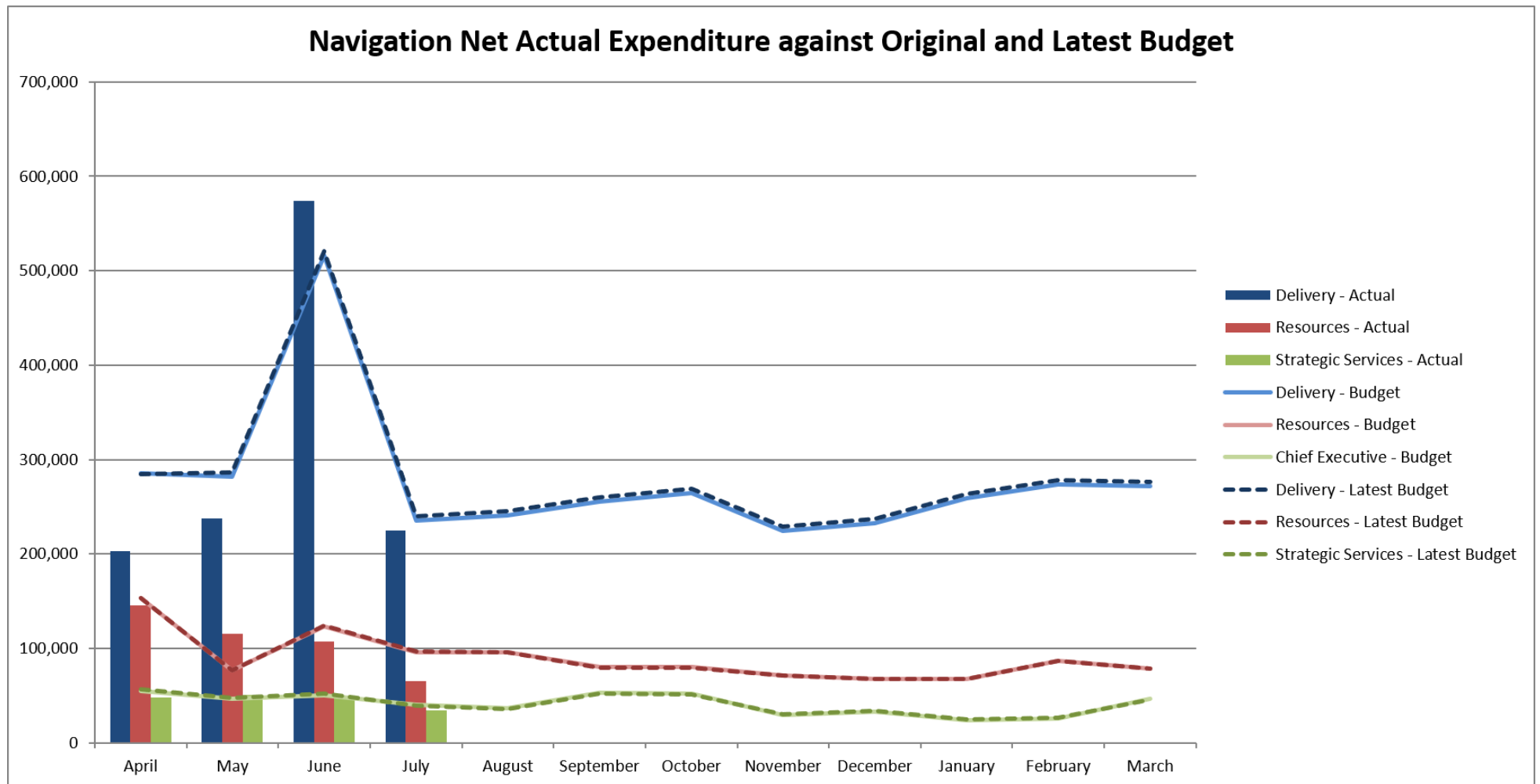
Date of report: 18 August 2026

Appendix 1 – Navigation actual income and expenditure charts to 31 July 2026

Appendix 2 – Financial monitor: Navigation income and expenditure 2026/27

Appendix 1 – Navigation actual income and expenditure charts to 31 July 2026





Appendix 2 – Financial monitor: Navigation income and expenditure 2026/27

Table 1

Income

Row Labels	Original budget (Navigation) £	Budget adjustments (Navigation) £	Latest Available Budget (Navigation) £	Forecast outturn (Navigation) £	Forecast outturn variance (Navigation) £
Total Income	(4,728,854)	(21,500)	(4,750,354)	(4,765,354)	+ 15,000
National Park Grant	0	0	0	0	+ 0
Hire Craft Tolls	(1,438,000)	0	(1,438,000)	(1,438,000)	+ 0
Private Craft Tolls	(3,108,000)	0	(3,108,000)	(3,108,000)	+ 0
Short Visit Tolls	(58,624)	0	(58,624)	(58,624)	+ 0
Other Toll Income	(40,730)	0	(40,730)	(40,730)	+ 0
Interest	(83,500)	(21,500)	(105,000)	(120,000)	+ 15,000

Table 2

Delivery

Row Labels	Original budget (Navigation) £	Budget adjustments (Navigation) £	Latest Available Budget (Navigation) £	Forecast outturn (Navigation) £	Forecast outturn variance (Navigation) £
Total Delivery	3,343,801	47,930	3,391,731	3,391,731	+ 0
Development Management	10,213	32	10,245	10,245	+ 0
Income	0	0	0	0	+ 0
Salaries	10,213	32	10,245	10,245	+ 0
Expenditure	0	0	0	0	+ 0
Pension Payments	0	0	0	0	+ 0
Construction and Maintenance Salaries	954,562	14,367	968,930	968,930	+ 0
Income	0	0	0	0	+ 0
Salaries	954,562	14,367	968,930	968,930	+ 0
Expenditure	0	0	0	0	+ 0
Equipment, Vehicles & Vessels	309,400	0	309,400	309,400	+ 0
Income	(1,400)	0	(1,400)	(1,400)	+ 0
Expenditure	310,800	0	310,800	310,800	+ 0
Water Management	82,700	0	82,700	82,700	+ 0
Expenditure	82,700	0	82,700	82,700	+ 0
Land Management	0	0	0	0	+ 0

Row Labels	Original budget (Navigation) £	Budget adjustments (Navigation) £	Latest Available Budget (Navigation) £	Forecast outturn (Navigation) £	Forecast outturn variance (Navigation) £
Income	0	0	0	0	+ 0
Expenditure	0	0	0	0	+ 0
Practical Maintenance	475,275	3,868	479,143	479,143	+ 0
Income	(17,925)	(35,660)	(53,585)	(53,585)	+ 0
Expenditure	493,200	39,528	532,728	532,728	+ 0
Waterways and Recreation Strategy	30,740	80	30,820	30,820	+ 0
Income	0	0	0	0	+ 0
Salaries	24,340	80	24,420	24,420	+ 0
Expenditure	6,400	0	6,400	6,400	+ 0
Ranger Services	1,151,584	25,772	1,177,356	1,177,356	+ 0
Salaries	795,984	(2,728)	793,256	793,256	+ 0
Expenditure	355,400	28,500	383,900	383,900	+ 0
Pension Payments	200	0	200	200	+ 0
Safety	99,858	3,523	103,381	103,381	+ 0
Income	(350)	0	(350)	(350)	+ 0
Salaries	76,773	223	76,996	76,996	+ 0
Expenditure	23,435	3,300	26,735	26,735	+ 0
Premises	133,405	0	133,405	133,405	+ 0

Row Labels	Original budget (Navigation) £	Budget adjustments (Navigation) £	Latest Available Budget (Navigation) £	Forecast outturn (Navigation) £	Forecast outturn variance (Navigation) £
Income	(1,120)	0	(1,120)	(1,120)	+ 0
Expenditure	134,525	0	134,525	134,525	+ 0
Delivery Management and Administration	94,614	288	94,902	94,902	+ 0
Salaries	93,594	288	93,882	93,882	+ 0
Expenditure	1,020	0	1,020	1,020	+ 0
Project Funding	1,449	0	1,449	1,449	+ 0
Expenditure	0	0	0	0	+ 0
Pension Payments	1,449	0	1,449	1,449	+ 0

Table 3
Resources

Row Labels	Original budget (Navigation) £	Budget adjustments (Navigation) £	Latest Available Budget (Navigation) £	Forecast outturn (Navigation) £	Forecast outturn variance (Navigation) £
Total Resources	1,079,099	(516)	1,078,583	1,078,583	+ 0
Strategy and Projects Salaries	24,851	76	24,927	24,927	+ 0
Income	0	0	0	0	+ 0
Salaries	24,851	76	24,927	24,927	+ 0

Row Labels	Original budget (Navigation) £	Budget adjustments (Navigation) £	Latest Available Budget (Navigation) £	Forecast outturn (Navigation) £	Forecast outturn variance (Navigation) £
Expenditure	0	0	0	0	+ 0
Strategy and Projects	0	0	0	0	+ 0
Expenditure	0	0	0	0	+ 0
Biodiversity Strategy	0	0	0	0	+ 0
Expenditure	0	0	0	0	+ 0
Human Resources	83,954	1,759	85,714	85,714	+ 0
Salaries	54,072	168	54,240	54,240	+ 0
Expenditure	29,882	1,591	31,474	31,474	+ 0
Volunteers	16,284	41	16,324	16,324	+ 0
Salaries	12,342	41	12,382	12,382	+ 0
Expenditure	3,942	0	3,942	3,942	+ 0
Finance and Insurance	358,017	(1,756)	356,262	356,262	+ 0
Salaries	186,183	(4,956)	181,228	181,228	+ 0
Expenditure	171,834	3,200	175,034	175,034	+ 0
Asset Management	72,433	72	72,505	72,505	+ 0
Income	(6,194)	0	(6,194)	(6,194)	+ 0
Salaries	23,616	72	23,688	23,688	+ 0
Expenditure	55,010	0	55,010	55,010	+ 0

Row Labels	Original budget (Navigation) £	Budget adjustments (Navigation) £	Latest Available Budget (Navigation) £	Forecast outturn (Navigation) £	Forecast outturn variance (Navigation) £
Collection of Tolls	229,580	660	230,240	230,240	+ 0
Salaries	218,580	660	219,240	219,240	+ 0
Expenditure	11,000	0	11,000	11,000	+ 0
ICT	239,510	384	239,894	239,894	+ 0
Income	125,635	384	126,019	126,019	+ 0
Salaries	113,875	0	113,875	113,875	+ 0
Expenditure	42,061	0	42,061	42,061	+ 0
Premises – Head Office	42,061	0	42,061	42,061	+ 0
Expenditure	42,061	0	42,061	42,061	+ 0
Resources Management and Administration	12,408	(1,752)	10,656	10,656	+ 0
Salaries	12,189	(1,752)	10,437	10,437	+ 0
Expenditure	219	0	219	219	+ 0

Table 4

Chief Executive

Row Labels	Original budget (Navigation) £	Budget adjustments (Navigation) £	Latest Available Budget (Navigation) £	Forecast outturn (Navigation) £	Forecast outturn variance (Navigation) £
Total Chief Executive	494,774	872	495,646	495,646	+ 0
Legal	50,000	0	50,000	50,000	+ 0
Income	(5,000)	0	(5,000)	(5,000)	+ 0
Expenditure	55,000	0	55,000	55,000	+ 0
Governance	115,811	358	116,169	116,169	+ 0
Salaries	87,562	358	87,920	87,920	+ 0
Expenditure	28,249	0	28,249	28,249	+ 0
Chief Executive	55,700	(1,392)	54,308	54,308	+ 0
Salaries	55,160	(1,392)	53,768	53,768	+ 0
Expenditure	540	0	540	540	+ 0
Communications	79,430	2,056	81,486	81,486	+ 0
Income	0	0	0	0	+ 0
Salaries	70,079	2,056	72,135	72,135	+ 0
Expenditure	9,351	0	9,351	9,351	+ 0
Visitor Centres and Yacht Stations	193,833	(150)	193,683	193,683	+ 0
Income	(162,960)	(12,240)	(175,200)	(175,200)	+ 0

Row Labels	Original budget (Navigation) £	Budget adjustments (Navigation) £	Latest Available Budget (Navigation) £	Forecast outturn (Navigation) £	Forecast outturn variance (Navigation) £
Salaries	312,413	7,090	319,503	319,503	+ 0
Expenditure	44,380	5,000	49,380	49,380	+ 0

Table 5

Projects and Corporate items

Row Labels	Original budget (Navigation) £	Budget adjustments (Navigation) £	Latest Available Budget (Navigation) £	Forecast outturn (Navigation) £	Forecast outturn variance (Navigation) £
Total Projects and Corporate Items	4,240	0	4,240	4,240	+ 0
Partnerships / HLF	0	0	0	0	+ 0
Income	0	0	0	0	+ 0
Salaries	0	0	0	0	+ 0
Expenditure	0	0	0	0	+ 0
Corporate Items	4,240	0	4,240	4,240	+ 0
Expenditure	4,240	0	4,240	4,240	+ 0

Table 6

Contributions from earmarked reserves

Row Labels	Original budget (Navigation) £	Budget adjustments (Navigation) £	Latest Available Budget (Navigation) £	Forecast outturn (Navigation) £	Forecast outturn variance (Navigation) £
Total contributions from Earmarked Reserves	(267,555)	(28,500)	(296,055)	(296,055)	+ 0
Earmarked Reserves	(267,555)	(28,500)	(296,055)	(296,055)	+ 0
Expenditure	(267,555)	(28,500)	(296,055)	(296,055)	+ 0

Table 7

Net (Surplus) / Deficit

Row Labels	Original budget (Navigation) £	Budget adjustments (Navigation) £	Latest Available Budget (Navigation) £	Forecast outturn (Navigation) £	Forecast outturn variance (Navigation) £
Grand Total	(74,495)	(1,715)	(76,210)	(91,210)	+ 15,000

Navigation Committee

03 September 2026

Agenda item number 9

Operations work programme progress update

Report by the Head of Operations, and Ecology & Design Manager

Purpose

To provide the Committee with an update on the Authority's management activities to maintain public navigation, develop mooring facilities for public use and demonstrate the effective use of available resources in managing the Broads waterways.

Broads Plan context

C1: Maintain navigation water depths to defined specifications, reduce sediment input, and dispose of dredged material in sustainable and beneficial ways.

C2: Maintain existing navigation water space and develop appropriate opportunities to extend access for various types of craft.

C3: Manage water plants, riverside trees and scrub, and seek resources to increase operational targets.

C4: Maintain and improve safety and security standards and user behaviour on the waterways.

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1. Achieving Waterways Specifications

- 1.1. The detailed breakdown in Appendix 1 gives the figures and volumes for the current dredging programme for 2026/27 (April 2026 to the end of July 2026). A total of 11,260 m³ of dredged sediment has been removed from the prioritised sites. This figure represents 45% of the programmed target of 25,210 m³ for the year.
- 1.2. The spring and summer 2026 dredging programme has focused on shoals along the River Yare between Trowse Rail Bridge and Surlingham. All sediment from this work has been taken to the Authority's licensed disposal site at Postwick. Testing continues to identify legacy mercury contamination downstream of Whitlingham, although concentrations are declining in the recently accumulated sediments now being dredged. The Postwick site has finite capacity, but recent assessment indicates that it can accommodate the most contaminated sediments expected to require dredging over the next twenty years or so. Where environmental surveys confirm that sediment is below the mercury thresholds, not requiring disposal at the licensed site, it is being re-used in other ways, including floodbank maintenance.
- 1.3. Upcoming dredging work through to March 2027 includes the Lower Yare, with sediment being taken to a floodbank set back area at Cantley; dredging priority shallow areas on the River Chet, with the material being used by the Environment Agency to top up the adjacent floodbanks; and the continuation of last winters cancelled dredging in the River Thurne upstream of Martham Ferry, including along Martham Dyke and Somerton Dyke. Appendix 2 shows that all navigation work areas are currently on track at this stage in the year.
- 1.4. Appendix 3 gives the summary of dredging activity over the whole 2025/26 year. Most of the commentary for this year was reported at the 16 April 2026 Navigation Committee meeting. Less dredging than planned occurred across the whole of the year (see Appendix 4). The impact of the salt incursion to the Upper Thurne and the resultant fish deaths had a significant impact on the ability to continue dredging. Also the start of a major project on the River Bure near Wroxham needing to be deferred to 2027/28 to allow more time for the various permits and consents required. The trial of the cutter suction head on the lower Bure at Great Yarmouth was useful, but not as productive as hoped, generating less than half the volume planned in the time allocated.

2. Water plant management

- 2.1. The 2026 season has been steady in the main rivers with the three water plant harvesters active since May. There has been a noticeable decrease in the amount of water plants in Hickling this summer compared to last year. Early season monitoring in May showed that approximately 24% of the bed of the broad was covered with water plants. This contrasts with the coverage of 79% in May 2025.

3. Maintaining safe public mooring facilities

- 3.1. Since April mooring refurbishment of the capping and waling has been completed at Repps Bank at Potter Heigham. At Worlingham on the River Waveney, the end of the 24-hour mooring has been reconstructed and strengthened where heavy erosion had occurred and some historic phases of piling and repair work have been improved and made safer.
- 3.2. Piling works planned at Authority moorings this year include the full replacement of the Potter Heigham demasting mooring. Following preparatory ground investigations and design work, installation is scheduled for winter 2026. Plans are also being developed for Potter Heigham Staithe, which the Authority owns and where design options have previously been consulted on. Further ground investigations and design work are planned for early autumn to progress this project. Additional ground investigation and design requirements are also being progressed at Acle Bridge, where previous repiling works were paused following multiple site issues and barriers to completion.
- 3.3. At Paddy's Lane 24 hour mooring at Barton Turf, sections of the mooring have been closed to the public. Due to the age of the construction and the very soft and deep peat substrate behind the mooring, the anchor piles and tie rods that retain the steel sheets on the front have failed in places. This is despite previous repairs and reconnecting some tie rods. The Design team are monitoring the condition of the mooring regularly to assess the extent of any further movement. A project plan is currently being drawn up to determine the best value solution for rectification of the whole of this mooring. Solutions to bring the site within acceptable standards will require major excavation and full replacement of at least the anchors and tie rods, as well as the main sheet piles.. Due to existing budget and work programme commitments, this work cannot be started until 2027/28 at the earliest. Some on-going impact to mooring will be experienced in this location this year and into next.
- 3.4. For 2027/28 and beyond, other 24-hour mooring locations which will require regular and on-going structural assessment to ensure facilities are safe to use, includes Commissioners Cut on the River Yare and Deep Go Dyke, Deep Dyke and Whiteslea in the Upper Thurne.

4. Electric charging pillar replacement

- 4.1. The Authority is replacing the existing electric charging pillars because the current pre-paid card system is increasingly outdated, inflexible and difficult to administer. Feedback from users, staff and stakeholders has highlighted that cards rely on in-person sales during outlet opening hours, credit is tied to individual pillars, and the older pillars have experienced reliability issues linked to tampering and flooding. The change responds directly to those operational and customer-service challenges and is planned for installation over autumn/winter 2026, ready for the 2027 boating season.

- 4.2. The new system will provide a more flexible, resilient and user-friendly approach to accessing shore power across the Broads. Users will be able to hold credit centrally rather than on a specific pillar, meaning remaining balances can be used at other participating 24-hour moorings and electricity will be paid for only as it is used. The new pillars are designed to be more robust and secure, with electronics positioned higher within the bollards, additional protection in flood-prone locations and improved tamper resistance. The project is being funded through a DEFRA capital grant, with no navigation income used to fund the works.
- 4.3. For users, the process will move from purchasing and loading physical cards to using the Meter MACS online portal. Boaters will create an account using a smartphone or computer, add credit in advance or during a visit, and then activate a charging pillar using the portal, their user ID and PIN. The pillars use a roaming SIM to connect to the strongest available network and establish a local connection with the user's device, helping the system operate even where phone reception is limited. More communications on the change and guidance for users will be provided in September. Installation of the new pillars will start in November, with the programme shared so that users can prepare.

5. Boating News and navigation restrictions

- 5.1. Recent public communications via [Boating News](#) and Authority's social media routes have highlighted several temporary and sudden navigation restrictions such as heat disrupting the normal opening of rail swing bridges. These cases are where provision of immediate updates has been challenging, especially when these occur outside normal office working hours.
- 5.2. Where formal requirement and sufficient advance notice is given, the [Notices to Mariners](#) webpage is used. Notices to Mariners are required as part of the Norfolk and Suffolk Broads Act 1988 and could mean, for example, creating a severe height or width restriction or the need for a river closure, due to infrastructure or planned repair works. These formal Notices require at least 35 days lead in time and printed publication of the Notice in a local newspaper.
- 5.3. Officers continue to liaise with asset owners and contractors to ensure that navigation impacts are minimised, appropriate safety measures are in place, and timely updates are via the most effective communications routes provided where works affect the public navigation.

Author: Dan Hoare & Sue Stephenson

Date of report: 17 August 2026

[Broads Plan](#) strategic objectives: C1, C2, C3, C4

Background Papers: [April 2026 Operations work programme - progress update](#)

[Potter Heigham Staithe re-piling and mooring space - options for the two existing small mooring cuts](#)

Appendix 1 – Annual dredging progress 2025/26 (to end July 2026)

Appendix 2 - Operational staff time spent on all work types 2025/26 (to end July 2026)

Appendix 3 – Final annual dredging figures 2025/26 (to end March 2026)

Appendix 4 – Final operational staff time spent on all work types 2025/26 (to end March 2026).

Appendix 1 – Annual dredging progress 2026/27 (to end July 2026)

Project title Dredge site and sediment re-use location	Active Broad Authority dredging weeks completed/ planned	Planned volume removed m³	Actual volume removed m³	Planned annual project cost¹	Actual project cost
River Yare Bishops Bridge to Postwick Postwick to Brundall	15/19	9,000	10,310	£127,480	£115,280
<i>Postwick Tip – April to August</i>					
River Bure Upton Dyke	3/2	770	950	£18,360	£24,060
<i>Oby Setback – April to May</i>					
River Yare & Chet Lower Yare Chet (shallows)	0/11 0/5	7,000 4,000	0 0	£134,720	£7,340
<i>Cantley Setback – November to March</i>					
River Thurne Martham & Somerton Boat Dykes Somerton to Candle Dyke	0/2 0/12	1,300 3,140	0 0	£158,450	£1,010
<i>Martham & Somerton Boat Dykes (sidecast) – October to November</i> <i>Somerton to Candle Dyke (Chara Bay re-use site, Hickling Broad) – November to February</i>					
River Bure Mid-Bure	-	-	-	£3,270	£1,060
<i>Lagoon preparation costs</i>					
Site restoration	-	-	-	-	£25,850
Future site preparation Survey, mitigation & set-up	-	-	-	-	£3,020
Dredging support activities	-	-	-	-	£15,400
Total	18/51	25,210	11,260	£442,280	£193,020

Appendix 2 – Operational staff time spent on all work types 2026/27 (update to end July 2026)

Work type	Planned - Days	Planned - % of annual total days	Actual - Days	Actual - % completed
Navigation (56%)	2850	56	907	18
<i>Italics are proportion within Navigation</i>				
<i>Dredging</i>	<i>1335</i>	<i>47</i>	<i>551</i>	<i>19</i>
<i>Mooring maintenance & repairs</i>	<i>630</i>	<i>22</i>	<i>155</i>	<i>5</i>
<i>Riverside tree management</i>	<i>50</i>	<i>2</i>	<i>0</i>	<i>0</i>
<i>Water plant cutting</i>	<i>240</i>	<i>8</i>	<i>156</i>	<i>6</i>
<i>Other navigation works¹</i>	<i>176</i>	<i>6</i>	<i>49</i>	<i>2</i>
<i>Corporate allocation ²</i>	<i>419</i>	<i>15</i>	<i>238</i>	<i>8</i>
Recreation (9%)³	446	9	211	4
Conservation (35%)⁴	1796	35	402	8
Total	5092	100	1520	30

1 – includes raising & disposal of wrecks, channel markers & buoys, gaugeboards & signage

2 – includes premises & equipment maintenance, training, sickness & gaps in recruitment.

3 - National Park funded work to facilitate public access and visitor services.

4 – National Park funded work to carry out priority fen management and other biodiversity restoration projects

Appendix 3 – Final annual dredging figures 2025/26 (to end March 2026)

Project title Dredge site and sediment re-use location	Active Broad Authority dredging weeks completed/ planned	Planned volume removed m ³	Actual volume removed m ³	Planned annual project cost ¹	Actual project cost
River Yare Bargate Broad	8/8	2,400	1,800	£56,260	£54,730
<i>Postwick Marshes re-use site – started in 2024/25, completed in 2025/26</i>					
River Yare Postwick Viaduct to Trowse Swing Bridge	10/9	6,480	4,800	£74,880	£61,900
<i>Postwick Marshes re-use site - complete</i>					
River Yare Hardley Dyke	-	-	170	-	-
River Thurne Hickling channel Martham & Somerton Boat Dykes Somerton to Candle Dyke	0/8 0/4 9/10	6,000 1,300 6,200	0 0 2,860	£175,420	£73,580
Hickling channel (Chara Bay re-use site) – October to November (postponed) Martham & Somerton Boat Dykes (sidecast) – January (postponed) Somerton to Candle Dyke (Chara Bay re-use site) – December to February					
River Bure Wroxham Broad	0/5	3,000	0	£33,940	£5,460
Wroxham Island – postponed until June 2026					
River Bure Lower reaches	3/4	5,000	2,200	£35,270	£37,460
<i>Cutter suction head dredging on ebb tide – complete</i> <i>*Volume to be determined following post-dredge hydrographic survey</i>					
River Bure Mid-Bure	-	-	-	£3,000	£1,260
<i>Lagoon preparation costs</i>					

Project title Dredge site and sediment re-use location	Active Broads Authority dredging weeks completed/ planned	Planned volume removed m³	Actual volume removed m³	Planned annual project cost¹	Actual project cost
Site restoration	-	-	-	-	£27,810
Future site preparation Survey, mitigation & set-up	-	-	-	-	£7,460
Dredging support activities	-	-	-	-	£63,450
Total	30/45	27,380	11,830	£378,770	£333,110

Appendix 4 – Final operational staff time spent on all work types 2025/26 (to end March 2026).

<i>Work type</i>	<i>Planned - Days</i>	<i>Planned - % of annual total days</i>	<i>Actual - Days</i>	<i>Actual - % completed</i>
Navigation (60%)	2,664	60	2575	58
<i>Dredging</i>	<i>1068</i>	<i>40</i>	<i>818</i>	<i>31</i>
<i>Mooring maintenance & repairs</i>	<i>687</i>	<i>26</i>	<i>573</i>	<i>22</i>
<i>Riverside tree management</i>	<i>50</i>	<i>2</i>	<i>67</i>	<i>3</i>
<i>Water plant cutting</i>	<i>225</i>	<i>8</i>	<i>218</i>	<i>8</i>
<i>Other navigation works¹</i>	<i>184</i>	<i>7</i>	<i>165</i>	<i>6</i>
<i>Corporate allocation ²</i>	<i>450</i>	<i>17</i>	<i>738</i>	<i>28</i>
Recreation (10%)³	444	10	494	11
Conservation (30%)⁴	1,332	30	1367	31
Total	4,440	100	4,440	100

1 – includes raising & disposal of wrecks, channel markers & buoys, gaugeboards & signage

2 – includes premises & equipment maintenance, training, sickness & gaps in recruitment.

3 - National Park funded work to facilitate public access and visitor services.

4 – National Park funded work to carry out priority fen management and other biodiversity restoration projects

Navigation Committee

03 September 2026

Agenda item number 10

Oil Spill Contingency Plan

Report by Head of Ranger Services

Purpose

Members are asked to note the latest version of the Broads Authority Oil Spill Contingency Plan which has been prepared in line with national guidance.

Broads Plan context

C4 - Maintain and improve safety and security standards and user behaviour on the waterways

1. Introduction

- 1.1. As the Statutory Harbour and Navigation Authority for the Broads, the Broads Authority are responsible for compliance with the Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998.
- 1.2. This Oil Spill Contingency Plan (OSCP) is intended to guide Broads Authority personnel and those of other responsible organisations through the processes required to manage an oil spill into waters within the navigable parts of the Norfolk and Suffolk Broads rivers system and the adjoining 'private' dykes, basins and adjacent waters.
- 1.3. The OSCP is reviewed every 5 years. The current plan is due for review before February 2027. The plan must go through a formal consultation process. The statutory consultees are included on page 7 of the Draft Plan attached to this report. The plan must have final approval from HM Coastguard Counter Pollution and Salvage Officer.
- 1.4. Members are asked to note the plan which has been prepared in line with national guidance.

Author: Lucy Burchnall

Date of report: 20 August 2026

[Broads Plan](#) strategic objectives: C4 - Maintain and improve safety and security standards and user behaviour on the waterways

Appendix 1 –Oil Spill Contingency Plan – UPDATED DRAFT

Oil Spill Contingency Plan – UPDATED DRAFT

Broads Navigation Area

August 2026

Version 5.3

Administration record

Issue	Modification	Approved
1	Formal Issue	Yes
2	Formal Issue 2006	Yes
2.1	Updated 2009	N/A
2.2	Updated 2010	N/A
3.0	Formal Issue 2011	Yes
3.1	Updated April 2015	N/A
3.2	Draft review document	17 July 2016
4.0	Formal Issue	20 November 2016
4.1	Updated December 2019	N/A
5.1	Draft review document	01 October 2021
5.2	Draft review document	21 December 2021
5.2	Formal Issue	31 st January 2022
5.3	Draft review of document	August 2026

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1. Introduction and Policy

1.1. Purpose of the Plan

This Oil Spill Contingency Plan is intended to guide Broads Authority personnel and those of other responsible organisations through the processes required to manage an oil spill into waters within the navigable parts of the Norfolk and Suffolk Broads rivers system (see Section 1.4) including Breydon Water, the lower reaches of the River Waveney and the lower reaches of the River Bure to a line across the River Yare at TG 51870781 and TG 51960786

This Oil Spill Contingency Plan does not apply to spillages occurring within waters which are under the navigational jurisdiction of the Great Yarmouth Port Authority. Spillages into those waters are dealt with under Great Yarmouth Port Authority's statutory Oil Spill Contingency Plan.

The statutory navigational jurisdiction of the Broads Authority extends to its 'Navigation Area' as defined by Norfolk and Suffolk Broads Act 1988. This includes the great majority of the main rivers and broads, but there are many side dykes, basins and some substantial areas of open water (e.g. Wroxham Broad) which are regarded as 'private water' outside the Authority's formal jurisdiction. Included in these 'private waters' are many boatyard and marina basins where boats are moored in large numbers and in which refueling and repairing operations take place and which are therefore at comparatively high risk of oil spillage. In such waters, whilst the Authority is the registration authority, the navigational byelaws do not extend to these waters. However, it is considered impractical to distinguish between these waters and the formal Navigation Area for the purposes of Oil Spill Contingency Planning. This Contingency Plan is intended to cover the formal public navigation and the adjoining 'private' dykes, basins and navigable waters.

1.2. Consultation

This Oil Spill Contingency Plan has been compiled in consultation with the following statutory bodies and authorities:

Environment Agency (EA)

Natural England (NE)

Marine Management Organisation (MMO)

Norfolk Resilience Forum

Great Yarmouth Port Company Ltd (GYPC) Peel Ports.

In addition, in view of the very high conservation value and importance of the Broads wetland ecosystem and the fact that much of the rivers system is contained within sites designated for their nature conservation importance (including designations as SSSI, SPA, SAC, Ramsar etc.) additional consultation has taken place with:

Royal Society for the Protection of Birds (RSPB)

Norfolk Wildlife Trust (NWT)

Suffolk Wildlife Trust (SWT)

National Trust (NT)

Water Management Alliance (WMA)

Essex and Suffolk Water (ESW)

East Suffolk Council

Suffolk County Council

The Broads are also an internationally important resource for boating recreation. Consultation has therefore taken place with:

British Marine Inland Association

Norfolk and Suffolk Boating Association

1.3. Habitat Regulations Assessment (HRA)

The Oil Spill Contingency Plan has been assessed in accordance with the EU Habitats Directive. The requirement to assess plans or projects is outlined in Article 6(3) and (4) of the European Communities (1992) Council Directive 92/43/EEC of the Conservation of Natural Habitats and of Wild Fauna and Flora (known as the 'Habitats Directive'), has been transposed into UK legislation by the [Conservation of Habitats and Species Regulations 2017 as amended](#). The Regulations are responsible for safeguarding designated European Sites and therefore protecting the habitats and species listed in the Annexes of the Directive.

The screening with Natural England has concluded that the Plan and respective actions contained would have no likely significant effect on the European sites within the Broads. As such, an assessment is not required.

1.4. Area of Application

This plan applies to the navigable sections of the Broads rivers and their navigable branches from their respective heads of navigation (listed below) to the boundary of the Broads Authority's jurisdiction with Great Yarmouth Port Authority:

River Bure: Horstead Lock to Bure Mouth Gt. Yarmouth.

River Ant: Dilham Staithe and Smallburgh Junction to Ant Mouth.

River Thurne: Hickling Staithe, Horsey Staithe, Waxham Bridge and West Somerton Staithe to Thurne Mouth.

River Yare: Trowse Mill to 100 metres downstream of Bure Mouth including Breydon Water.

River Wensum: New Mills Yard to Trowse Eye. River Chet: Loddon Basin to Chet Mouth.

River Waveney: Geldeston Lock to Turntide Jetty, Oulton Dyke and Oulton Broad.

The above waters comprise approximately 130 miles of tidal rivers and Broads.

1.5. Responsible Authority

The Broads Authority is pursuant to Norfolk and Suffolk Broads Act 1988 the Statutory Harbour and Navigation Authority for the waters to which this plan applies and is the authority responsible for compliance with the Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998.

1.6. Identification of the Roles and Responsibilities

Within the UK there is an adopted structure and procedure for response to marine oil spills, which clearly defines the roles and responsibilities of industry, UK Government (including environmental agencies) and local maritime authorities. Each statutory body has a designated area of jurisdiction within zones extending from the High Water mark to 200 nm or the UK Territorial Limit.

The competent national authority designated to oversee all matters pertaining to the OPRC convention under the Merchant Shipping Act 1995 and the Merchant Shipping and Maritime Security Act 1997 is the Maritime and Coastguard Agency (MCA).

1.6.1. Statutory Jurisdiction

Jurisdiction							
Authority	HWS	LW	1nm	3nm	6nm	12nm	200nm
Port s	All operations within Port limits						
Local A ¹		out of Port limits					
MC A							
	Oil spill response, monitoring, advice						
MCA (HMCG)							
	Search and Rescue						
NE/JNCC ²							
	Conservation of the natural heritage						
MMO ³							
	Marine environment and fisheries protection						
EA ⁴							
	Water quality						
HMR&C							
	Import duty						

Local Authority¹	Has a duty of care (under the CCA, 2004) to prepare and implement an oil spill contingency plan for response to oil spillage on the coastline from HWS to LWS including out of port limits.
NE / JNCC²	Natural England requires to be notified up to 12nm. JNCC's remit extends from 12nm to
MMO³	Approves dispersants and their use in shallow water and advise on their use in deeper waters – e.g. at least 1 nm beyond the 20 meter contours.
EA⁴	Requires to be notified on water quality issues up to 3nm.

1.7. Document Control and Plan Revision

This plan is a controlled document, with numbered copies.

The distribution of numbered copies is as shown at Appendix I. All document holders are assigned a specific numbered copy.

Any changes in the situation, changes to the plan or other updates will be issued as amendments to all holders of the plan within three months of such change.

The plan will be reviewed annually or in light of lessons learned from exercises and incidents. The plan will be revalidated every five years, which will be accomplished in

co-operation with statutory consultees.

1.8. Cooperative working with Environment Agency

There is a potential overlap of responsibility for dealing with oil spilled into inland rivers and waterways between the harbour or navigation authority and the Environment Agency. The Broads Authority co-operates with and works closely with the Environment Agency in the event of any reported pollution incident. Based on past experience in such circumstances the Broads Authority and Environment Agency have evolved a joint understanding as to which organisation will be principally responsible for:

- Investigating reported oil spills.
- Putting in hand containment and clean-up operations.
- Enforcing oil pollution legislation by prosecution.

The Broads Authority accepts principal responsibility if the source of the spillage is 'marine' in nature including:

- Pollution/spillage coming from a vessel under way.
- Pollution from a vessel by discharge of oily bilge or other oily discharge whether moored or underway.
- Pollution/spillage from a vessel sinking, damaged or on fire.
- Spillage from a vessel during refueling operations.

The Environment Agency will be principally responsible for dealing with incidents emanating from an 'on-shore' source including:

- Pollution/spillage from vehicles, plant or machinery on land.
- Pollution/spillage from boats on land (e.g. in boatyards)
- Pollution/spillage from on-shore oil storage tanks/oil storage facilities.

1.9. Joint responses with Norfolk Fire & Rescue Services (NFRS)

Norfolk Fire and Rescue Service (NFRS) forms part of the wider joint response arrangements for pollution incidents affecting the Broads. Where a spill involves unknown or potentially hazardous substances, NFRS may be able to assist with initial hazard assessment and identification of chemicals involved, supporting safe working decisions by responders. NFRS response vehicles may also carry equipment that can assist with immediate containment actions, including fast tanks and drain blockers, which may be used to help prevent pollutants entering drains, surface water systems or watercourses while the source is made safe and further response arrangements are put in place.

NFRS may also be able to deploy additional pollution response equipment if Broads Authority

resources are exhausted or are insufficient for the scale of the incident. This support is includes deployment of equipment on behalf of the Environment Agency, subject to incident requirements and availability.

1.10. Description of the Broads Navigation and Navigational Activity

The Norfolk and Suffolk Broads system comprises six principal rivers: Bure, Ant, Thurne, Yare, Chet and Waveney. These are all tidal rivers, which drain to the sea through the Port of Great Yarmouth. There are no barriers, locks or other structures to prevent inward surges from the sea or to retain or control fluvial waters. (There is a sea lock at Mutford Lock, Oulton Broad, but this is a branch of the River Waveney. The main river discharges to sea unimpeded through Breydon Water and Great Yarmouth harbour).

The total length of navigable tidal rivers is approximately 130 miles (200 km). The tidal regime is semi-diurnal, although rainfall, wind and barometric conditions exert strong influence so that at times the tidal pattern can be heavily disguised or distorted. The fluvial regime is mainly ebb-dominated: the ebb stream runs in most places an hour or more, longer than the flood and usually more strongly. Time of high and low water is later the further up river, so that for example HW at Reedham is 2½ hours after Gt. Yarmouth, Acle about 3½ hours after, Norwich and Wroxham 4½ hours after and Coltishall and Stalham 5 hours after.

Tidal range is greatest at and near Great Yarmouth with Spring Tide range approximately 2.20 metres. The tidal range decreases further up river. At Norwich the extreme spring range is approximately 1.50 metres. In the northern part of the system (Rivers Bure, Ant, Thurne) tidal ranges are smaller, a matter of a few inches and frequently distorted or masked by rainfall and meteorological conditions. Tidal streams likewise are strongest in the lower reaches: streams of up to 4 knots are common in the lower reaches of the River Yare and the narrow stretches of the River Bure in Gt. Yarmouth. In the middle reaches (above Reedham on the Yare, St. Olaves on the Waveney and Acle on the Bure) streams seldom exceed 2 knots.

The rivers connect a number of larger open water bodies or shallow lakes – the “broads”. In some cases (e.g. Barton Broad) the main river flows through the broad, but most broads are connected to the main river by a side dyke. 12 broads are connected to the rivers system and open for navigation. A number of others are connected but are not open for navigation and some broads are not connected to the rivers system at all.

River and channel widths vary from around 70 metres in the widest reaches of the River Yare down to about 15 metres in the narrowest parts of the River Chet and some navigable dykes. Some private dykes and basin entrances are narrower.

The banks and channel edges of the rivers and broads also vary widely. In the lower reaches the rivers flow mainly between man-made flood embankments, the marshes beyond being lower than the rivers with marsh water levels being maintained by pumping into the rivers.

The area between the flood embankment and the river edge is known as the rond. Rond widths vary. In the lower reaches, where salt-water inundation is more common the ronds are of a salt-marsh nature, frequently with an exposed muddy foreshore at low water, and subject to ongoing erosion. Where, through prolonged tidal scour, wave action and exposure to boat wash the rond has been eroded, often on the outside of river bends, so far that the flood embankment is threatened, commonly steel sheet piling has historically been installed to contain the river and protect the flood embankment.

Further up river reduced tidal range and less frequent saltwater inundation makes for traditional Norfolk reed ronds, often with 'reedswamp' fronting them. These ronds and their fringing reed are of particularly high conservation and landscape importance. In many areas, however, historical erosion and declining water quality has resulted in loss of emergent reedswamp and undermining of the rond edge which has prompted 'hard' engineering treatments of the channel edge, including steel sheet piling, timber sheet piling, alder pole piling and various experimental bank treatments including fascine mattresses, gabions and geo-textile applications.

Further upriver again, in the upper reaches of the navigable system, incursion of scrub and trees into the historically open reed marsh landscape has led to the river banks being heavily treed, with overhanging vegetation, exposed tree roots, heavy erosion between trees and much fallen vegetation. In villages and settlements, river edging is mainly of timber or steel sheet piling.

Broads Authority Management and Presence around the Broads System

The Broads Authority is the statutory harbour and navigation authority and is also a special statutory authority with powers very similar to those of a national park authority. Because the Broads area developed very early as a major holiday destination, particularly for self-drive boating holidays and continues to be busy and heavily used for this purpose, as well as private recreational boating, the Authority has traditionally maintained a high level of patrolling presence of both river and shore-based staff.

The Authority's team of twelve full time Rangers, five seasonal Rangers and an Assistant Ranger together with voluntary Rangers operate eight patrol launches based at Wroxham, Irstead, Ludham (2 launches), Burgh Castle, Burgh St. Peter, Hardley and Thorpe St. Andrew. The Rangers patrol the Broads seven days weekly during summer season according to defined attendance/service levels. Winter season patrolling is also carried out on a less frequent basis. The patrol launches are equipped with on-board supplies of oil sorbent pads, sorbent booms, disposal bags and personal protective equipment, so as to be able to immediately commence containment and removal of minor spillages.

The Authority also operates a maintenance team who undertake general river maintenance projects. The works teams operate from well-equipped workboats similarly provided with sorbent booms, pads, disposal bags and personal protective equipment. The Authority also maintains one trailer-borne Rigid Inflatable Boat for rapid/emergency response and a shallow draught and highly maneuverable weed cutter/litter collection barge, which is

suitable for application and recovery of containment booms and sorbent booms, sheets etc. or deployment of skimming equipment.

Broads Control and Communications

The Authority's vessels when patrolling or engaged in river works, and the Authority's field staff maintain permanent contact with the Broads Control base at the Dockyard, Thorpe. Broads Control has a dedicated private VHF channel (Channel 33) for contact with Authority staff/vessels. All field staff/Rangers also carry mobile phones. The Broads Control number is also widely distributed to private and hire boats and local businesses.

In combination, any sighting of spilled oil can be quickly and easily reported to the Authority and will be investigated, either by boat or by land/vehicle, as appropriate. Any reported spillage during working hours would receive attendance or investigation usually within one hour. Outside of working hours (evenings and overnight, when risk of oil spillage is comparatively low) the Authority operates a standby system. The Coastguard and Environment Agency have the contact number for the standby manager for emergency call-out at these times.

The Authority maintains stocks of oil sorbent pads, sorbent booms, inflatable containment boom, disposal equipment, personal protective equipment and associated damage control gear at its Dockyard base in Thorpe as well as response kits on all the patrol vessels. (for full details see Section 10, Resources Directory).

Boating Activity

The Broads system is very heavily used by recreational craft, including large numbers of self-drive hire craft which include motor cruisers up to 14m length. Each year the Broads Authority registers approximately 11,000 recreational vessels. Annual boat registrations for 2025 were:

Vessel type	Number of boat registrations
Hire Motor Craft	995
Private Motor Craft	7,419
Hire Sailing Craft	73
Private Sailing Craft	722
Hire Rowing Craft	376
Private Rowing Craft	1,516
Hire Houseboats	27
Private Houseboats	68

There are also approximately 6 MCA Certificated Passenger Vessels of length up to approximately 25 meters operating mainly from Wroxham, Horning and Oulton Broad.

Additionally, there are various dredging pontoons, mud wherries, and workboats used for maintenance of the system operated by the Broads Authority from their dockyard at Thorpe. There are a handful of workboats operated by local piling and maintenance contractors.

2. Risk Assessment – Spillage from Vessels

2.1. Risk Assessment: Spillage from Vessels

Spillage from vessels may take place in the following principal circumstances:

2.2. Spillage While Refueling

There are over 24 locations around the Broads where vessels can refuel (all diesel) by hose from an onshore storage tank via a conventional dispenser pump. These are located in boatyards and marinas principally in the main boating centers. Established boatyard refueling facilities are listed in Appendix 5.

In all such locations delivery is via a conventional vehicle forecourt type hose and nozzle with automatic backpressure shut-off.

Most owners of larger inboard powered boats will refuel from boatyard or marina pumps. The prices charged for fuel can however be very high and a minority of owners, particularly those at un-serviced and low-cost moorings of which there are many round the system, may bring fuel in cans. There is a significant risk of spillage by fueling from cans. However, the difficulty of handling fuel in cans means that the maximum size is 25 litres, and in the worst case of a full open can being lost overboard that is the most that is likely to be lost. Even these small amounts of diesel can spread an oily iridescent sheen over a large area of water. If held into a corner or confined area by wind or stream or containment, diesel may pool in a slick, which may be possible to remove by use of sorbents or skimming equipment.

There will be immediate local damage and soiling to river edge vegetation etc., and possibly oiling to waterfowl if they are for any reason trapped in dense oil, but it will not cause severe lasting damage to the eco-system or habitats. In many cases refueling by can will be for small engines which use very modest amounts of fuel and where the containers used may very likely be 5 or 10 litre cans.

Some sailing yachts and a minority of small motor cruisers have inboard petrol engines. There are very few locations where boats may take petrol from onshore delivery pumps. The majority of such refueling will be by cans. However, restrictions on storage and transporting of petrol and on the size of container which can be filled at petrol service stations means that most such refueling will also be from 5 litre or 10 litre cans. The risks of pollution by spillage are correspondingly reduced. More significant is the risk of fire or explosion whilst filling petrol tanks from cans.

A possible area of concern is the frequent refueling from cans of dayboat hire operations, where intensive use of a number of boats from a single base location may lead to repeated very small spillages which may combine in dykes or still waters to make a discernible slick.

Experience over the past decade has indicated that spillages from refueling have very seldom if ever approached the worst case 25 litre volume. Individual spillages are frequent but they are almost always much smaller: seldom more than 0.5 litre.

In previous years, a particular cause of spillage has been mistaken filling of the fuel tank with a freshwater hose, leading to fuel being displaced and overflowing into the river. This is usually the result of inexperience on the part of boat hirers, despite the fact that hire craft fillers are clearly marked. The oil spilled comes out diluted with large quantities of water, so that it tends to spread widely in a thin iridescent sheen. Improvements in labelling and information given during the handover seem to have helped reduce these instances more recently.

2.3. Spillages Resulting from Fire, Explosion or Navigational Incident

Sinking or flooding of boats within the Broads occurs from time to time. On average about five to six sinkings happen each year. This is usually as a result of vessels not being secured properly to the bank, with vessels becoming 'hung-up' then sinking. On occasion the sinking may be the result of an inexperienced helmsmen colliding with riverbanks or, very occasionally, because of failure of watertight integrity of the hull. Experience has shown in these circumstances that there will be initial light pollution from oily bilge water and contents of engine drip trays, followed sometimes by a slow discharge of oil from the fuel tank vent pipe if that is submerged. Such spillage is usually easily dealt with by sorbent booms and sheets, and vessels are ordinarily recovered promptly and before significant amounts of oil have entered the river.

The majority of hire craft have diesel fuel tanks of between 120 litres and 240 litres capacity. The Broads, especially the rivers Yare and lower Waveney, are however also used by significant numbers of larger modern seagoing motor yachts, based mainly at Brundall and Oulton Broad. The largest of these may have two diesel tanks each of around 900 litres capacity. Such tanks are always of steel construction and are not integral to the hulls of the vessels, so that risk of breaching of tanks, including in the event of collision is very small.

Oil spillage may also take place as a consequence of fire or explosion. Historical records in the Broads indicate a consistent pattern wherein annually two or three vessels are the subject of major fires, which result in their becoming a total loss. Experience has shown that boat fires, even particularly violent fires, give rise only to moderate local pollution, wherein a small amount of oil pollution is mixed with charred material and debris, and which can be managed by containment booming around the affected vessel and the use of absorbent booms and sheets, together with manual removal of debris. Very seldom is there a large-scale escape of fuel oil from the vessel's tanks, although if the burned vessel sinks there may be slow leakage via vent pipes etc., and the condition of the wreck may be such that recovery or removal may be delayed.

2.4. Spillages from the Port of Great Yarmouth

The most significant spillage of oil into the navigable Broads system in the past decade has been from a bunkering incident in the Great Yarmouth Port area with oil entering the Broads system on an incoming tide. This risk from bunkering is covered in the Peel Ports Port of East Anglia OPRC Oil Spill Contingency Plan, along with vessel collision in the River Port which could also impact on the Broads area as follows:

- Bunkering Failure in River Port - Hose rupture, coupling failure, tank overflow or communication breakdown during ship-to-shore bunkering results in marine gas oil entering the water
 - Product and spill volume - Marine Gas Oil (MGO)- 500 litres–3 tonnes
 - Impact - Localised MGO pollution with visible sheen, contamination of river, environmental impact, potential migration toward connected waterways, Impact to business reputation
 - Prevention measures - Specialised bunker contractors, Bunker checklist & approval process. Communications. Operations cease in poor weather conditions. Spill response equipment close to hand. Code of practice.
 - Response strategies - Tier 1 recovery using the Port's stockpile; containment booming, sorbents, monitor and evaluate. Mobilise Tier 2 contractor if deemed appropriate.
- Vessel collides with another vessel or grounds within the River Port due to restricted manoeuvring space, tidal influence, mechanical failure or navigational error.
 - Product and Spill volume - Marine Gas Oil (MGO) - 10–80 tonnes MGO
 - Impact - Moderate pollution risk within confined river channel, with potential contamination, banks, moorings, commercial berths, potential migration toward connected waterways. Major environmental impact, disruption to navigation. Business reputation, Toxic odour impacting residents.
 - Prevention measures - Compulsory Pilotage >40m, MSMS, Publication of Bathymetric survey data vessel manoeuvrability. Soft seabed. Availability of tugs. Guidelines in place. Aids to navigation
 - Response strategies - Tier 1 recovery using the Port's stockpile - Immediate escalation to Tier 2 or 3; boom deployment for containment; recovery by nominated Tier 2 contractor

Both of these risks have been assessed as 'acceptable' by Peel Ports with the mitigation measures in place. The amount of oil entering the Broads system from such a spill would depend on the tide and other weather influences as well as measures already taken by the Port to control and spill.

2.5. Spillage from significant land-based sources

The Broads Authority does not have statutory power to regulate onshore oil storage facilities, but the Environment Agency does have such powers. All non-domestic non-waste (and non-agricultural) oil tanks above 200 liters are required to have secondary containment to contain any spill, including valves, filler pipes etc. The Environment Agency is responsible for enforcing these regulations.

A specific risk for land-based pollution was raised by Greater Anglia in relation to the Crown Point Rail Depot. The depot, which holds diesel, engine oil and waste oil on site, is next to the river Wensum, with several drains leading from the site into the river. Following a desktop exercise by Greater Anglia involving their response to a spill on site, this risk was assessed as part of the Authority's Tier 2 exercise. An additional booming point has been added at Whitingham to address this risk. There are stringent measures already in place at the depot to contain any spilled oil, including bunds and spill kits. The amount entering the watercourse would be small and in exceptional circumstances, such as flood conditions.

2.6. Summary of Risk Assessment

Very small spillages of less than 1.00 liters of oil or oil in water are frequent. Where these are isolated, wind or tidal streams usually disperse the oil such that containment or removal is not practicable. Prevention by education, good housekeeping and appropriate regulations is more relevant.

There is a comparatively high risk of spillage of up to about 25 litres of oil associated with refueling from cans.

There is a very much smaller risk of spillage of up to about 2,000 litres of oil in the event of a serious navigational incident to a large private motor yacht. Although historically no such large spillage has occurred, it remains a possibility and an adequate response procedure is required.

The risk of larger amounts of Marine Gas Oil entering the Broads system from the Port of Great Yarmouth has been assessed by Peel Ports to be 'extremely unlikely' with the existing control measures in place.

2.7. Tiered Response Strategy

The MCA Oil Spill Contingency Plan Guidelines require that the internationally recognised three-tier oil spill classification system form the basis of the response strategy.

Tier One:

Small operational spills that can be dealt with immediately utilising local resources. A Tier One spill is not likely to require resources held outside the area or mobilisation of external incident response arrangements (except for purposes of notification).

Tier Two:

Medium sized spills, which will be handled by Broads Authority personnel and nominated oil

spill response contractor or other external assistance and resources as detailed in this plan. The Authority has in place contracted Tier Two response cover with Ambipar Response Ltd.

Tier Three:

Larger spills or serious failure of containment which will require full involvement of other authorities and possible mobilisation of national stockpiles and resources. It is considered extremely unlikely that spillage from pleasure vessels or boatyards in the Broads could ever approach a Tier Three incident.

For the purpose of this OSCP the oil spill tiers are defined as:

Tier One: Up to 200 litres diesel/marine gas oil.

Tier Two: Up to 10,000 litres diesel/marine gas oil.

Tier Three: In excess of 10,000 litres diesel/marine gas oil.

2.8. Minor Spillages/De Minimis Provision

There will be a certain de minimis level of spillage, referring to the frequent very minor spillages which occur around the system, which cannot practicably prompt the mobilisation of this Oil Spill Contingency Plan. Given the ability of a small volume of oil to spread a visible iridescent sheen over a very large area of water it is always very difficult to judge the quantity of oil or oily water which has entered the river, dyke or basin. Also, the location and circumstances of the spillage greatly affect the visibility of the spill, the practicability of containment and removal, the likely speed of natural dispersion and biodegradation and the potential environmental consequences. However, it is concluded that any spill estimated to be of less than 5.00 litres of oil should be regarded as being too small to justify mobilization of this Oil Spill Contingency Plan.

For the avoidance of doubt: a spill of 5.00 litres or less may well be visible and capable of containment and removal. In those circumstances the practice is, and will continue to be, that Broads Authority staff (especially Rangers and Operations Maintenance Teams) will notify the spillage in accordance with this plan but will proceed promptly to deal with it, using the sorbent booms and pads carried on Authority vessels and back-up supplies (including containment boom) kept at the Authority's Dockyard.

2.7. Summary of hazards, risks and controls

Hazards and confounding factors	Main risks	Controls	Comments
Oil or fuel entering tidal rivers and broads	Pollution spread by tide, current and wind; contamination of water, banks, ronds and sensitive habitats.	Early reporting, containment at source where safe, use of booms and absorbents, and coordination with	The tidal nature of the Broads means oil can move quickly and may be difficult to recover once dispersed.

		statutory partners.	
Spills from vessels	Bilge discharge, refuelling incidents, vessel damage, sinking or fire leading to oil release.	Broads Authority response arrangements, investigation, containment and clean-up, with escalation where required.	Marine-source incidents are treated as a principal responsibility for the Authority within its navigation area.
Incident in Great Yarmouth port area, including bunkering incident or holed vessel	As above but likely on a larger scale.	Notification required from Peel Ports, tested in exercises.	Impacts will be tide and weather dependent. Joint response required from Port and Authority if oil enters Broads area.
On-shore pollution sources	Run-off or discharge from vehicles, plant, boatyards, storage tanks or oil facilities entering watercourses.	Environment Agency lead role where appropriate, joint working, drain protection and source control.	Land-based spills may still affect the navigation area and require close cooperation between responders.
Strong tidal streams and variable water levels	Rapid movement of pollutant, difficult boom deployment, changing access and recovery conditions.	Use local tidal knowledge, select suitable containment locations, and adapt deployment to water level and flow.	Lower reaches can experience stronger streams, while rainfall and weather may distort normal tidal patterns.
Narrow dykes, basins and private waters	Restricted access, concentrated pollution, high boat density and increased risk during refuelling or repair activity.	Include adjoining navigable waters in planning, prioritise access routes and use small-scale containment or absorbent equipment.	Although formal jurisdiction may vary, the plan treats these areas as relevant for practical contingency planning.
Sensitive banks, ronds, reedbeds and wetlands	Damage to habitats, difficult clean-up, disturbance to protected sites and long-term contamination.	Minimise intrusive clean-up, seek environmental advice, prioritise protection of sensitive locations and avoid unnecessary bank disturbance.	Reed ronds, broads and wetland margins are environmentally important and may be more vulnerable than hard-edged banks.

3. Environmental and Economic Impacts

3.1. Nature Conservation Designations

The Broads area is of extremely high international importance for nature conservation and hosts a very wide range of habitats and species many of which are protected under European law. This is reflected in the large number of designated nature conservation sites, which either form part of (such as Barton, Hickling Broads and Heigham Sound) or are adjacent or close to the navigable waterways (such as Martham, Cockshoot Broads as well as the fen, reedbed and grazing marsh).

In consultation with Natural England it has been concluded that the sites principally at risk in the event of an oil spill are those which are waterways or fen or reedbed in direct connection to the waterways and are 'undefended', that is not protected from inundation by flood embankments. 'Defended' sites, being those protected by flood embankments, would only generally be at risk if a serious oil spill coincided with a severe storm surge which involved widespread overtopping or breaching of the flood embankments, which would be an extremely unlikely event. However, there are several river water intakes that supply freshwater to designated wetlands, such as the Stracey intake on the Bure and South Fen intake on the Ant for example. Should these intakes be supplying water to these wetlands at the time of an oil spill these 'defended sites' would also be at risk of environmental degradation.

Natural England has identified the following designated sites as being potentially at risk from an oil spillage within the Broads Navigation system:

SSSIs:

Broad Fen, Dilham

Ant Broads and Marshes

Upper Thurne Broads and Marshes Bure Broads and Marshes

Burgh Common and Muckfleet Marshes Trinity Broads

Cantley Marshes

Yare Broads and Marshes Hardley Flood

Stanley and Alder Carrs

Sprat's Water and Marshes, Carlton Colville SSSI

Halvergate Marshes SSSI (directly the ronds only, indirectly the whole SSSI through the IDB intake))

All of the above SSSIs are components of the following European Sites:

The Broads SAC

Broadland SPA

Broadland Ramsar

Part of Breydon Water is also designated as a Local Nature Reserve by Great Yarmouth Borough Council:

Breydon Water SSSI

Breydon Water Ramsar

Breydon Water SPA

Maps and Citations for all of the above designated sites are at Appendix 4.

3.2. General Strategy

On every occasion when an oil spill affects or is likely to affect a designated conservation site or nature reserve Natural England and the organisation/land manager responsible for management of the site or reserve will be contacted and kept fully informed of the extent of the spill, of the consequences as they become apparent and of progress and proposed methods for dealing with the spill.

3.3. Environment Group

In the event of a more serious spill of Tier Two volume (over approximately 200 litres of oil spilled), whether or not the spill is directly threatening any designated conservation site, reserve or equivalent conservation interest to a SSSI 'sites of high conservation value', an immediate step would be to establish an Environment Group, the purpose of which would be to guide the Broads Authority and its appointed Tier Two response contractors through the process of oil recovery and clean-up with minimum immediate or prospective harm to the natural environment, wildlife and ecology.

The Environment Group would consist of officers of the Broads Authority (BA are SEG members but not core members so will be called upon when required), East of England Environment Group, Environment Agency, Public Health, and non-governmental conservation organisations whose property or interest might be threatened. The East of England Environment Group have already produced a Marine Pollution Contingency Plan which covers the area from Gibraltar Point to Kessingland. This included MMO, Environment Agency, Natural England, the Norfolk Wildlife Trust, Norfolk County Council, Royal Society for the Protection of Birds, Health Protection Agency, and the Maritime Coastguard Agency. This is a group ready set up in case of a spill.

3.4. Principal Strategy for Response, Containment and Clean-up

The area of operation of this plan is extremely large, with a very wide range of natural conditions and circumstances which may be encountered. It is not possible in this plan to

describe in detail the intended response and actions to be taken in particular scenarios or circumstances. However, it is possible to set down certain principles that should govern the actions taken in response to spills which might affect areas of high conservation value and designated areas.

- a) The aim will be to contain and limit the spread of oil with priority on preventing oil or its effects spreading into areas of high conservation value/designated areas.
- b) Booming and containment sites will, so far as is practicable, be chosen to give effect to this priority (see Appendix 6).
- c) Particular attention will be given to preventing oil from reaching locations where river water is abstracted for maintaining appropriate water levels in marsh dykes, or other conservation management purposes. If it is not possible to keep oil away from water abstraction pumps etc., steps will be promptly taken to ensure that abstraction is suspended while the threat of oil pollution remains. Priority will also be given to excluding oil from dykes which run into designated areas, nature reserves or other areas of conservation significance, especially where no water control structure exists. (examples being dykes connecting to the Reedham Marshes are of How Hill, Hoveton Great Broad to the main river, dykes draining into the north side of Ranworth and Malthouse Broads, the Dykes system around White Slea on Hickling and many other similar locations).
- d) The aim will be to remove as much as is possible of the oil from the environment by use of skimming equipment and absorbents. Use of chemical treatments or dispersants will not be appropriate.
- e) Removal of spilled oil will be undertaken by means which cause minimum damage to the natural environment. In particular, damage to ronds, reedbeds and reed fringes will be avoided. Access for oil recovery will be limited to locations which will minimise damage to the environment and to habitats. Emphasis will be placed on recovery of oil by vessels.
- f) Where removal of spilled oil would cause damage to the natural environment it may be preferable to allow it to degrade naturally. The Authority's response in such circumstances will be undertaken in consultation with the Environment Agency and relevant conservation organisations, having regard also to the effects of spilled oil and removal/clean-up operations on amenity, recreation and navigation.

The conduct and management of the clean-up and oil removal operation and the storage and disposal of oil removed will be undertaken in accordance with best practice and the terms of licences, conditions and directions issued by the Environment Agency.

4. Response in the Event of Oil Spill

4.1. Responsibility and Incident Control Arrangements

The response team will be led by the Navigation Officer or in their absence by the Head of Safety Management or Head of Operations and may involve the Operations team managers and Senior Rangers.

A Marine Response Centre will be established at the Broads Authority's Dockyard Office, Griffin Lane, Thorpe St Andrew, Norwich. For spills in the Great Yarmouth area a local base may be established at Great Yarmouth Yacht Station (summer only) or with Peel Ports as a joint control room (when appropriate).

The Navigation Officer (Head of Ranger Services), or in their absence the Head of Safety Management or Head of Operations, will act as Incident Controller/On Scene Commander.

Broads Authority Rangers will be involved as clean-up operators.

4.2. Environment Group

In the event of a more serious spill of Tier Two proportions (more than 200 litres of oil spilled) an Environment Group would be formed (see Section 3.3)

4.3. Dispersant Use

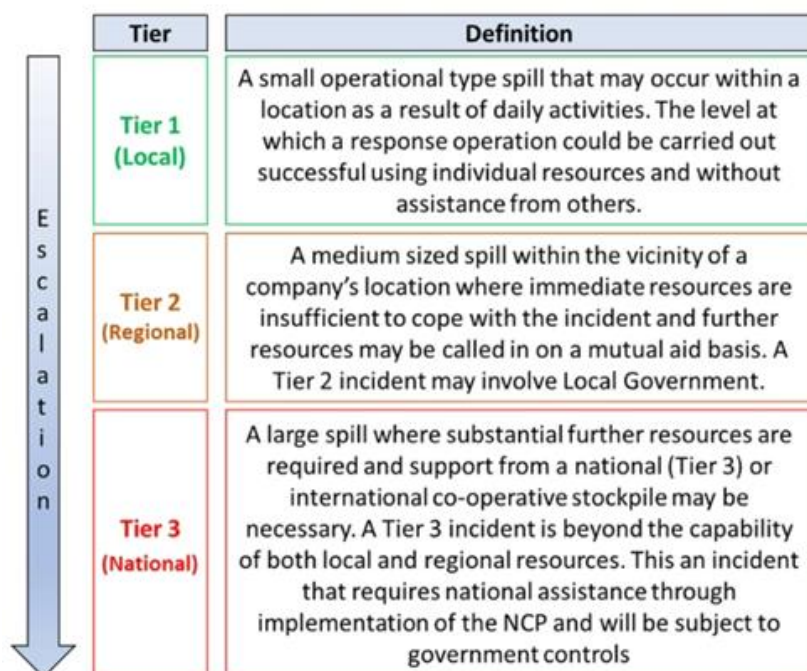
After due consultation dispersant would be used within the area covered by this plan only in circumstances when its use would be essential to avoid genuine risk to human health or safety. It would not be the Broads Authority's policy to allow the use of dispersant unless a genuine risk requiring its use could be established. Approval from MMO would be sought before applying dispersants unless urgent application were needed to avoid risk to public health or safety.

Under the terms of the Marine and Coastal Act 2009 and the Marine Licensing (Exempted Activities) Order 2011, it is a legal requirement that oil treatment products may only be used in English or Welsh waters if they have been formally approved for this purpose by MMO, in addition, specific permission from MMO must be obtained before any such products are used in shallow waters – these are defined as any area of the sea which is less than 20 meters deep, or within one nautical mile of such an area. This includes any use in tidal estuaries and rivers such as the Broads system.

4.4. Interface with other Contingency/Emergency Plans

This plan will be used in conjunction with Peel Ports, Port of East Anglia OSCP, Great Yarmouth Borough Council's OSCP, Environment Agency's Incident Plan, Norfolk Resilience Forum Coastal Pollution Plan, Suffolk Resilience Forum (SRF) Marine Plan and the East of England Environment Group which has been set up and would offer advice on a Tier 2 or 3 incident.

4.4.1 Oil Spill Tiered response



Tier	Definition
Tier 1 (Local)	A small operational type spill that may occur within a location as a result of daily activities. The level at which a response operation could be carried out successfully using individual resources and without assistance from others.
Tier 2 (Regional)	A medium sized spill within the vicinity of a company's location where immediate resources are insufficient to cope with the incident and further resources may be called in on a mutual aid basis. A Tier 2 incident may involve Local Government.
Tier 3 (National)	A large spill where substantial further resources are required and support from a national (Tier 3) or international co-operative stockpile may be necessary. A Tier 3 incident is beyond the capability of both local and regional resources. This is an incident that requires national assistance through implementation of the NCP and will be subject to government controls

4.5. Internal Alerting and Call-out Procedures

An initial spill report will come, in the first instance, to the Broads Authority Office. There is a possibility that reports could come from members of the public or boatyard staff, Environment Agency, Norfolk County Council offices, Suffolk County Council; East Suffolk Council or the Police. The information received must be passed immediately to the Head of Rangers Services, or in their absence, to the Head of Safety Management or Head of Operations. Police and HM Coastguard are provided with an out-of-hour phone number for the standby manager who can call the above staff. The lead officer will do their best to confirm the incident details and determine the level of clean-up operation necessary and the requirements as to whether to activate the Broads Authority Response Team. All calls and decisions made must be recorded, and an Oil Spill report form raised.

4.6. Communications and Reporting

Reporting of Oil Pollution

It is essential that all spills are reported by whatever means as quickly as possible.

- Responsibility for reporting of oil pollution rests with the Master in all cases involving a vessel and with the berth operator in the case of a berth or quayside incident. In cases involving a vessel alongside both parties are equally responsible.
- Any person either ashore or afloat, seeing oil pollution on the water within the Broad Authority's jurisdiction or liable to pose a threat to it, should report it whether or not the source is known.
- The Navigation Officer is responsible for ensuring statutory notifications are made.

Communications

Initially reports will be passed by telephone both landline and mobile (consideration should be given when using mobiles for security reasons). Broads Authority maintains VHF sets which would be issued to supervisors once a clean-up strategy had been established.

In the event of a clean-up operation a shift system will be instituted to ensure the office is manned on a 24-hour basis.

Records

It is essential that all events occurring during an incident are logged and recorded (sheet shown in Appendix 3). This will provide assistance if liability, compensation or reimbursement issues arise as a result of the incident. To achieve this, all key personnel must keep logs. Entries in the log should detail as a minimum, events, actions taken, communications with outside agencies, decisions made and points relevant to the operations.

These logs should be forwarded to the Navigation Officer once the incident has ended to form part of the final incident report and provide the basis for a 'wash-up' meeting.

4.7. Notification Matrix

Organisations to contact once notified of incident:

Role/Organisation	Action	Contact Details and Additional Information	Tier Level
HM Coastguard /MCA	Phone Email	Humber MRCC POLREP Email: zone10@hmcg.gov.uk	1-3
Environment Agency	Phone Email	0800 80 70 60 ics@environment-agency.gov.uk	1-3
Marine Management Organisation	Email	Email: dispersants@marinemanagement.org.uk	1-3
Natural England	Email	Email: marineincidents@naturalengland.org.uk	1-3

Organisations to contact as required:

Role/Organisation	Action	Contact Details and Additional Information	Tier Level
Eastern IFCA	Phone Email	01553 775321 mail@eastern-ifca.gov.uk	1-3
Ambipar	Phone	Emergency Line 0120 265355	1-3
County and District Councils	Phone Email	As per contact page	1-3
Peel Ports Great Yarmouth	Phone	24 Emergency Tel: 01493 335511 Email: gyharbouroffice@peelports.com	

4.8. Liaison Procedures with Other Agencies

Rapid passing of information to other affected agencies is essential for effective response.

Below are agencies concerned and their roles:

Department for Transport, MCA / CG

Co-ordinate maritime search & rescue

Primary contact in event of spill

Classification, categorisation & monitoring

UK Government response

Authority to co-ordinate response in accordance with the NCP

Responsible for mobilising government equipment for offshore & onshore clean up

Activate the Environment Group, establish MRCC if required

Environment Agency

Responsible for water quality in river & estuarine areas up to 3nm offshore

Waste disposal including oiled clean up materials regulations

Regulations for waste disposal, including contaminated clean up material

Natural England

Nature conservation including designated sites and features

Environmental appropriateness of proposed response actions

Monitoring environmental effectiveness of response actions

Marine Management Organisation

Responsible for the protection of the UK fisheries interests and marine environment

Authority for the approval and use of oil dispersants within English waters

Local Authorities

Coordinate local response for oil spill clean-up operations

HM Customs and Excise

Water Guard Department responsible for claiming Petroleum Revenue Tax from landed recovered oil

UK Petroleum Industry Association

Consultation & Technical information services

4.9. Partner Notification and Liaison

Partner	Notify / liaise when	Route	Purpose
Environment Agency (EA)	On-shore source Pollution entering watercourses	Agreed pollution reporting route Plan appendices /	Confirm lead role Coordinate response

	EA advice needed	contacts	Seek regulatory advice
Natural England (NE)	Designated habitats at risk Protected species affected SSSI / SPA / SAC / Ramsar sites	Environmental liaison route Usually via BA / EA coordination	Ecological advice Clean-up constraints Avoid further damage
MCA / HM Coastguard	Marine pollution report needed Vessel incident Escalation beyond local response	CG77 process Coastguard reporting route	Statutory notification Support escalation Maintain incident record
Great Yarmouth Port Company / Port Authority	Pollution within or near port waters Boundary / interface incident	Agreed port liaison contacts Plan notification routes	Confirm jurisdiction Coordinate containment Share vessel / tide information
Norfolk Fire and Rescue Service (NFRS)	Fire, rescue or explosion risk Unknown chemicals Drain blockers, fast tanks or extra kit needed	999 for emergencies Confirm control-room route for kit requests	Responder safety Chemical identification Deploy containment kit
Norfolk Resilience Forum / resilience partners	Major or multi-agency incident Public safety issue Wider community impact	Local resilience routes Emergency planning contacts	Multi-agency coordination Public information Welfare / infrastructure support
Local authorities, conservation bodies and land / water managers	Access or landowner input needed Habitat sensitivity Waste or public facility issue	Distribution list Local contacts Incident management structure	Secure access Coordinate site protection Support recovery

4.10. Operational Response

The operational response in the event of an oil spill incident will depend on a large number of factors:

- i. The seriousness of the spill: Tier One, Two or Three.
- ii. Location of the spill.
- iii. Wind, tide and natural conditions.
- iv. Whether there is risk to life or health of persons.
- v. Whether there is risk of pollution to nature conservation sites, nature reserves or important habitats.

- vi. The level of risk to creatures (especially birds/waterfowl and fish).
- vii. Whether there is risk of serious landscape damage or damage to property.
- viii. Whether there is risk to convenience or amenity of persons (including navigational convenience or amenity).
- ix. The type, extent and thickness of spilled oil.
- x. Whether containment and removal are possible.
- xi. Whether access is possible for oil recovery (from land or boat).
- xii. Practicality of temporary storage and onward licensed disposal.
- xiii. Whether wind or tide has caused or will cause the spillage to disperse or spread widely.
- xiv. Whether attempted containment/recovery will cause further environmental damage
- xv. Whether and how quickly the spilled oil will disperse or biodegrade through action of wind, tide, oxidation or, as appropriate, agitation.
- xvi. Particular weather or environmental conditions e.g. ice cover, very strong winds, extremes of heat or cold, surge conditions or very high fluvial flows etc.

With such a large range of potential factors and having regard to the very wide range of conditions and circumstances to be encountered throughout the Broads system it is not possible to prescribe in this plan a detailed operational response for every particular hypothetical spillage incident in any particular location.

It is possible however to plan for such events and to set out a range of operational response actions and the principles according to which they would be applied:

Oil Dispersants

It is not the Authority's policy to use oil dispersants.

Containment Booming

Where it is possible to contain spilled oil with prospect of being able to recover a significant part of the spillage the Authority will endeavour to do so.

Whether it is practicable or worthwhile to contain spilled oil depends on many factors including tidal streams and weather conditions, tidal rise and fall, the width of the waterway, accessibility and working space for assembling and deployment of booms and for recovery of oil, availability of relatively still water areas for deflection, containment and removal of oil, ability to secure and seal containment booms to banks, availability of space for temporary holding/storage tanks and effects on other persons including delays or closures to navigation.

Oil booming may be worthwhile in locations where recovery cannot practicably be achieved; to prevent or deflect oil from entering nature conservation designated areas, nature reserves, water abstraction points etc.

In very many instances, especially where relatively small amounts of oil have been spilled into the main river, tidal streams may have dispersed oil by the time the spill is investigated so that containment is no longer practicable and the oil may be lying so thinly on the water over so large an area that recovery using absorbents is not practicable or worthwhile. This widely dispersed but thin skim of oil usually manifests itself as the typical multi-coloured iridescent sheen, which is very obvious to the observer. Oil of this thickness will disperse and biodegrade by natural action, especially in warm and bright conditions and may be assisted in doing so by wind and wave action, or by artificial agitation by boat wash etc.

If the spillage is into a boatyard basin or side dyke it may not so quickly disperse by wind or tidal action. In these conditions it may, if it is disturbed and becomes mixed with water, take on a milky or opaque appearance (especially if it is lubricating or hydraulic transmission oil). Although this is less obvious than the coloured sheen, it may indicate a higher concentration or thickness and correspondingly greater prospect of containing and recovering significant amounts of oil. Likewise, spillages of diesel or marine gas oil into an undisturbed basin or still water dyke may result in the oil building up to considerable thickness on the water surface. In these circumstances it may be possible to install effective containment booms at the mouth of the basin or dyke to prevent the oil dispersing out into the main river (perhaps on turn of tide or change of wind), and also to prevent boats entering the oil with the effect of firstly breaking up the thick and hence easily removable oil, and secondly spreading oil by it attaching to their hulls.

In circumstances where oil has accumulated to considerable thickness removal by disc skimmer or oleophilic mop will be particularly effective.

Therefore, the Authority will install containment booms especially across the entrances of boatyard and marina basins and side dykes where that will operate to contain oil for removal and prevent spread of oil out into the rivers system.

While there are hundreds of side basins and small dykes where containment booming might become appropriate, there are a number of locations where frequency or intensity of boatyard and re-fueling activity suggests that preparation for emergency booming should be a priority (for example Hobro's Dyke, Brundall or Daisy Broad, Wroxham). Such locations are listed in Appendix 7.

Management of River Traffic

The Broads rivers are very heavily used by large numbers of recreational craft, both hire and private. Boat traffic census information indicates in excess of 1,000 boat movements per day (0900 to 1800) at busy locations in the northern part of the system in summer. Of these movements about 80% are self-drive hire craft of different kinds. Sustained delay or interruption to boating traffic on the main rivers can have severe operational and commercial consequences for boat hire operators and is therefore not to be undertaken lightly. Closures of the main rivers to navigation for dredging or river maintenance work usually takes place only out of season and after publication of Notices to Mariners, and is usually limited to overnight or very short period closures. However, the Authority has the powers to close the river to navigation in the event of emergency and those powers would be used in the event of a major oil spill, especially where:

- There might be risk to health or safety from continued boat traffic through the affected area.
- Cross-river containment booming was required to prevent a major spill entering or affecting a designated nature conservation area, nature reserve or important habitat.
- Cross-river containment booming was required to prevent a major spill entering or affecting a village or urban area where there was serious threat to the amenity of riverside residences or properties.
- Passage of vessels through the affected area might exacerbate the effects of the oil spillage (e.g. by effects of boat wash) or might hinder or delay clean-up operations.

It should be noted however that the Authority has no means of communicating directly with the majority of boats circulating in the system and that emergency closure of any section of the system can only be achieved by direct communication to vessels from the Authority's patrol launches. Closure for periods of more than a few hours can be communicated by social media email to boatyards and marinas (the Authority maintains an up to date contact list) and by direct leafleting of craft at moorings, especially those near the closed section.

It should be further noted that in the frequent case of small spillages of oil which have become well dispersed so as to be beyond practicable containment, the passage of vessels with attendant wash and agitation may be beneficial in promoting break up, dispersion and biodegradation of spilled oil.

Potential Temporary Waste Oil Storage Sites

There are a great many possibilities for siting temporary waste oil holding tanks, including over one hundred boatyard sites (subject to owners' permission) which all have good road access.

The Broads Authority also owns/operates over sixty public mooring areas, although not all these have road access.

There are also a large number of Riverside Pubs with good road access where, subject to permission of the proprietors, temporary oil storage tanks could be established in car parks etc.

Temporary waste oil holding tanks would need an exemption from the Environmental Permitting regulations. Any waste oil can be stored at the place it is produced under a non-waste framework directive (NWFD) 2 exemption which doesn't need to be registered.

4.11. Information to be obtained as initial Spill Report

Date: Time:

Name of person reporting incident:

Job title:

Details of company/organisation or address:

Call back number:

Location of incident:

Estimated quantity of spilled oil litres/tonnes

Type of oil spilled:

Action taken to prevent further spillage:

Other relevant information:

4.12. Action Sheet

In the event of a call out requirement, the following action sheets should be used as a check list to ensure proper cover of all aspects of response.

Navigation Officer (or deputy)

No.	Action	Refer to
1.	Obtain all available information. Ensure that an Incident Log has been started and POLREP Report Form filled in.	
2.	Determine initial level of manpower and equipment resource mobilisation required.	Tiered Response and Section 10
3.	Establish communication with all concerned parties and ensure that statutory reporting requirements have been carried out.	Statutory Notification Section 4.6 and 4.7
4.	Determine level of response that has been initiated and inform MCA, EA and NE of intended response. Determine level of response required from duty personnel.	Tiered Resources
5.	Contact/Call out Response Team personnel as appropriate.	Mobilisation Procedure
6.	Ensure that a sample of spilt oil is taken in accordance with the Police and Criminal Evidence Act, especially when the origin of the spill is unknown or legal proceedings are liable to be taken. This will ensure that it could be used in a court of law if required (e.g. continuity of evidence)	MCA's STOP Notice 4/2001

Tier 1 Spill Response

No.	Action	Refer to
7.	Call out additional personnel as required to handle spill notifications.	Statutory Notification Section 4.6
8.	Monitor situation. Obtain regular briefings from Clean-up Supervisor on progress of clean up.	

No.	Action	Refer to
9.	Determine likely impact of incident. Consider deployment of booms to shut off waterways. Complete and log a full report.	
10.	If it appears that the spill has escalated, proceed for Tier 2 incident.	

Tier 2 Incident

No	Action	Refer to
11.	Contact Response Contractor and agree primary level of response required.	Section 9
12.	Start and maintain an accurate log of all communications with contractor.	
13.	Establish communication link with the contractor's Response Manager and issue a call back number.	
14.	Determine extent of incident in terms of: - any casualties; - any safety hazard; - damage to facilities; - extent of pollution; - results of any actions taken so far.	
15.	Brief Response Supervisor of actions as appropriate.	
16.	Establish review/planning meetings. Continue normal communications and ad hoc briefings.	
17.	When incident stood down confirm incident closure with all agencies involved.	
18.	Complete incident log and ensure receipt of report from response supervisor.	

4.13. Escalation of Response

In the event that a response escalates to Tier 2 level, sufficient office-based personnel must be mobilised to establish a Marine Response Centre. A room must be made available to meet with personnel from external agencies.

The Navigation Officer will retain the position of on-Scene Commander unless any change is agreed with the Government Agencies involved.

If the response is likely to become protracted, the Navigation Officer must make arrangements for the Marine Response Centre to be managed and run according to the needs of the response team. This may entail providing catering and accommodation arrangements locally.

In the event that outside contractors are employed to assist with the clean-up, due notice must be taken of the Health and Safety Policy contained in Section 7 of this plan.

4.14. Broads Authority, Chief Executive

The Chief Executive should be ready to assist if deemed necessary by the Navigation Officer and must be in a position to make corporate decisions regarding media reporting, liaising with underwriters and agreeing contracts.

Chief Executive

No.	Action	Refer To
1.	Obtain briefing from Navigation Officer with situation report and then relocate to Head Office if required.	
2.	Assess incident in terms of: • people; • environment; • damage to facilities • disruption to business.	
3.	Approve outline response strategy.	Response Strategy
4.	Approve immediate and future contracted equipment requirements.	Tiered Resources Section 10
5.	Arrange initial public relations programme.	Utilise advice and pro-forma statement Section 8.3

No.	Action	Refer To
6.	Attend review meetings in Marine Response Centre.	

5. Waste Disposal Operations

5.1. Relevant Legislation

The safe handling and disposal of recovered oil is governed by relevant sections in the following legislation:

- a) Environmental Permitting Regulations 2016
- b) Hazardous Waste Regulations 2005

If oily waste material is produced as a result of a pollution incident then the polluting party (operator) has a duty of care to ensure that the waste is handled, transported and ultimately disposed of in an appropriate manner. If the material is to be handled by contractors then the operator (to reduce liabilities to a minimum) has to ensure that each contractor has the relevant waste transportation and disposal licenses.

Natural England should be consulted on any proposal to dispose of or store waste material to ensure that sensitive wildlife areas and designated/protected sites are not affected. The Environment Agency must also be consulted to ensure any storage of waste does not cause risk to the Environment and is within the Environmental Permitting requirements— see section 4.9.4.

It is vitally important that the waste streams are kept separate, rather than being mixed together to enable the waste to be recycled or reused effectively.

In addition, HMRC must be notified if recovered oil is brought ashore by dedicated oil recovery vessels. Landing should not be hindered by the absence of an official from HMRC; however, the Operator should maintain a careful log on quantity and nature of the recovered oil.

The options for waste disposal or treatment of material, be it oily liquids or oiled solids are:

- a) temporary store, clean, stabilise and then recover or re-use;
- b) temporary store and then take to appropriate disposal site for burial;
- c) take to a refinery/incinerator (mainly for oily liquids only);
- d) take to appropriate disposal site.

Each disposal option will be examined in turn with various points for consideration highlighted.

(a) Temporary Storage/Clean, Treat, Stabilise, Recover, Re-use

This option aims to store temporarily the material and then, slowly over the ensuing period, to clean it or stabilise it and then to recover or reuse it.

In most cases this is the best environmental option. It avoids the risk of changing what was

a marine oil pollution problem into an inland surface pollution problem or groundwater pollution problem.

From temporary storage the contaminated material can be stabilised with cement, lime, clay, organic binders, asphalt and composting. The characteristic of each product needs to be considered when determining the ultimate disposal route or any perceived end use. It is important to note that the treatment of wastes also comes under the waste management licensing system. Therefore, any strategy to deal with the waste in this manner can only be developed through close liaison with the local authority concerned and the Environment Agency.

(b) Temporary Storage

The reasons for constructing a temporary storage site are as follows:

1. There is no immediate disposal outlet for large quantities of oil/sand mixture or for oil/water mixtures and clean-up cannot be allowed or stopped.
2. The equipment used to clean beaches is usually labour intensive and therefore requires an immediate transfer area adjacent to the site to be provided.
3. The nature of the roads precludes high traffic densities.
4. The in-situ treatment of contaminated material is often preferable to removing large quantities of material from the shoreline.

Under the Environmental Permitting Regulations 2016, any waste oil can be stored at the place it was produced under a non-waste framework Directive (NWFD) 2 Exemption which does not need to be registered. <https://www.gov.uk/guidance/waste-exemption-nwfd-2-temporary-storage-at-the-place-of-production--2>.

Each site will have to be constructed in a specific manner. It is therefore essential that the construction of temporary storage sites be done through close liaison with the local authority concerned and the Environment Agency.

(c) Take to a Refinery/Incinerator (mainly for oily liquids only)

This material should be removed from site by a licensed waste handling company who will then arrange for its disposal in an appropriate manner. If there is suitable access, oily liquids produced from a shoreline clean-up operation can be removed from site by road tanker.

If the oily liquids are on-board a dedicated recovery vessel following an at sea containment and recovery operation then it can be transferred across the quay, at a suitable berth, to a road tanker or other suitable waste reception facility. Alternatively, this waste can be fed directly into the reception facility at a marine terminal of an oil refinery. It is the responsibility of the ship's Master to ensure that this waste is disposed of appropriately. However, the Broads Authority must confirm that any contractors have the necessary

licences and permits to handle and dispose of the waste. The disposal route should also be agreed with the Environment Agency to ensure it meets with their satisfaction.

(d) Direct to Appropriate Disposal Site

All disposal sites require an Environmental Permit. The permit is specific to the type of material that can be disposed of at the site. There are only a few sites that are permitted to receive organic or chemically polluting materials (includes oily waste). There will be a charge levied by the site operator for depositing material at the site. In addition, there is landfill tax/levy applied to all waste deposited in a landfill.

5.2. Hazardous Waste Transportation

Furthermore, waste oil is likely to be classified as a Hazardous Waste and should be treated as such until otherwise determined. It would therefore be subject to the Hazardous Waste Regulations (2005). Mixes of oil/sand and oil/seawater etc. would probably be considered as Hazardous Waste if the percentage of carcinogenic compounds is above 0.1%. It is therefore likely that oily beach materials and oil/water liquids would have to be handled as Hazardous Waste.

The transportation of Hazardous Wastes generally requires that the Environment Agency (EA) be informed before the waste is removed. This is done by filling in parts A, B and D of a Consignment Note, available from the EA website, which is sent to the Department responsible for the receiving facility. This should be done at least three clear working days before the waste is to be moved. <https://www.gov.uk/dispose-hazardous-waste> However, in the event of an “emergency” the EA may waive the requirement for pre-notification. The licensed waste carrier completes part C of the Consignment Note and takes it with the load to the receiving facility. The licensed operator of the receiving facility then signs the consignment note to say that they have accepted the load and that they are authorised to manage it properly.

The requirement for pre-notification generally does not apply to hazardous waste from ships. Therefore, oil recovered at sea by a dedicated Oil Recovery Vessel could be discharged within a harbour to an appropriate waste reception facility without having to pre-notify the EA. However, a consignment note will have to be supplied with each load sent for disposal.

To ensure that oily waste material is transported and disposed of in an appropriate manner, a licensed waste carrier and disposal company should be contracted. The Operator and Waste Disposal Company should then liaise with the EA to confirm that the disposal route identified meets with their satisfaction.

5.3. Disposal Plan

Waste Oil is classed as a hazardous waste, and should be treated as such. It would therefore be subject to the Hazardous Waste Regulations 2005. Mixes of oil/sand and oil/seawater may be considered hazardous waste if the percentage of carcinogenic compounds is above 0.1%. It is likely that oily beach materials and oil/water liquids would have to be handled as Hazardous waste.

It is not necessary to contact the Environment Agency before transport of hazardous waste. An appropriate contractor would be required to remove the waste from its initial storage site and they would then become the waste producer. All hazardous waste producers are required to register as a hazardous waste producer at the Environment Agency and the contractor should be asked to provide proof that they are registered.

A member of the Broads Authority should be present when the waste is removed to ensure that waste is removed appropriately.

5.4. Waste Disposal Action Checklist

Waste Generated from a Shoreline Clean-up Operation

(a) Temporary Storage/Clean, Treat, Stabilise, Recover, Re-use

1. Discuss requirement to establish temporary storage sites along the river bank with EA, Natural England (NE) and the Local Authority, when on or adjacent to an SSSI.
2. If agreed, identify temporary storage sites in close liaison with EA, NE and Local Authority.
3. Instruct Oil Spill Response Contractors to construct temporary storage sites. Area to be isolated, outlets and drains plugged, membrane laid, bunded area created, skips set or lagoons lined.
4. Confirm treatment methods and ultimate disposal with EA and Local Authority.
5. In close liaison with the Oil Spill Response Contractors agree course of action and assist with the necessary arrangements where necessary.

(b) Temporary Storage and then to Appropriate Disposal Site for Burial

6. Discuss requirement to establish temporary storage sites along the riverbank with EA, NE and the Local Authority.
7. If agreed, identify temporary storage sites in close liaison with EA, NE and Local Authority.
8. Instruct Oil Spill Response Contractors to construct temporary storage sites. Area to be isolated, outlets and drains plugged, membrane laid, bunded area created, skips set or lagoons lined.

9. Identify suitably licensed waste carrier to remove material from site.
10. Confirm with waste carrier the disposal route and ultimate disposal site. Liaise with EA to ensure that the disposal strategy is acceptable.
11. Ensure all associated paperwork, i.e. consignment notes, are retained and catalogued.

(c) Take to Refinery/Incinerator (mainly for oily liquids only)

12. Identify suitably licensed waste carrier to remove material from site.
13. Identify suitable facility to receive the waste.
14. Confirm with waste carrier the disposal route and ultimate disposal site. Liaise with the Regulator to ensure that the disposal strategy is acceptable.
15. Ensure all associated paperwork, i.e. consignment notes, are retained and catalogued.

(d) Direct Transportation to Appropriate Disposal Site for Burial

16. Identify suitably licensed waste carrier to remove material from site.
17. Confirm with waste carrier the disposal route and ultimate disposal site. Liaise with the EA to ensure that the disposal strategy is acceptable.
18. Ensure all associated paperwork, i.e. consignment notes, are retained and catalogued.

5.5. Bonn Agreement Oil Appearance Code

The quantity of spilt oil may be estimated using the following oil quantity table taken from the Bonn Agreement Oil Appearance Code (BAOAC). This should be used to estimate the amount of spilt product if direct information is not available. The table below details the BAOAC colours; calculation of the volume of spilt oil from the appearance of film on the water is as follows:

1. Estimate total size of the area as a square/ rectangle in km
2. Assess the area affected by the slick in km² calculated as a % of the total area
3. Estimate the area covered by each colour, calculated as a % of the total area affected
4. Multiply the area covered by each colour by the appropriate BAOAC
5. Adding all of the colour figures will give the total quantity of oil in m³ within the slick

The Bonn Agreement Oil Appearance Code (BAOAC)

Code	Description	Layer thickness interval (μm)	Volume per km^2 (1km by 1km)
1 	Sheen (Silver/ grey)	0.04 – 0.30	0.04 – 0.3m ³
2 	Rainbow	0.30 – 5.0	0.3 - 5m ³
3 	Metallic	5.0 – 50	5 - 50m ³
4 	Discontinuous true oil colour	50 – 200	50 – 200,000m ³
5 	Continuous true oil colour	200 and above	Over 200,000m ³

6. Training and Exercise Policy

6.1. Training Policy

In order to familiarise personnel in the use of this Oil Spill Contingency Plan and comply with MCA guidelines, Oil Spill Response training courses will be held for all appropriate employees of the Broads Authority and river operators with an identified role within the plan. In addition, there will also be awareness briefings with other river users and the Agencies who were involved in the consultation process.

After initial training, instruction will be specific; with the use of Tier 1 and Tier 2 oil spill response equipment located at the Dockyard and on-board the Broads Authority's launches. This will be tested and deployed using those personnel who will be responsible for operating this equipment in the event of a spill.

In order to meet the minimum levels as recommended in the MCA guidelines, the training and exercising of key personnel is detailed below.

Training in the use of this plan

Position	Timing	Type of Training
The Navigation Officer and Head of Safety Management, Head of Operations	At plan approval	MCA level 4p
Broads Authority designated staff	At plan approval plus annually	MCA level 1
Chief Executive	At plan approval	Contingency Plan Familiarisation briefing

6.2. Exercise Programme

To ensure that the Oil Spill Contingency Plan is "user friendly" and understood by all those involved in its use, communications and practical exercises will be undertaken on an annual basis.

The Navigation Officer will hold a record of all Personnel Training and Contingency Plan Exercises. Post exercise/incident reports to be forwarded to the Counter Pollution and Salvage Officer.

Exercises designed to evaluate the plan

Exercise Type	Frequency
Notification exercise	Twice per year
Mobilisation exercise	Twice per year
Table-top Exercise (may incorporate mobilisation and deployment of local response equipment)	Once per year
Incident Management Exercise (will incorporate mobilisation and deployment of resources up to Tier 2 level)	Once every 3 years

7. Health and Safety

7.1. Statutory Duties

Applicable Statutory Law and its Implications

The Health and Safety at Work etc. Act 1974 places a clear duty on all employers and persons responsible for premises to ensure that the workplace is safe and in the case of the employer, to have a safe system of work. This duty is placed regardless of whether the workers are employees; sub-contract workers, temporary workers or self-employed persons.

Implementation of the Management of Health and Safety at Work Regulations 1999 requires that all employers carry out suitable and sufficient Risk Assessments of all tasks to be undertaken in the workplace. Where five or more employees are employed then the Assessment is to be recorded and those at particular risk must be informed according.

These same regulations require that the employer executes a Safety Management System and that measurement of performance against standards is made. All employees must receive adequate training, information and supervision.

Additionally, there is a requirement for all employees to receive suitable and sufficient health surveillance to ensure that they are fit to carry out the work and that the work conditions do not cause them adverse effect.

The Provision and Use of Work Equipment Regulations 1998 requires that all equipment provided for use at work is safe and fit for purpose. The persons using the equipment must be adequately trained in its use and the operation must be properly supervised.

The Personal Protective Equipment Regulations 1992 requires that all equipment provided is fit for purpose and does not cause adverse effect. That all personnel are trained in its use and that all associated risks are recorded, controlled and pointed out to those affected.

The Manual Handling Regulations 1992 requires that all work where lifting, pulling and pushing is involved, is assessed and all risks to the health and safety of those involved are reduced to a level as low as reasonably practicable.

The Control of Substances Hazardous to Health Regulations 2002 requires that all substances to which a worker may be exposed, including dusts and gases, are properly assessed and the risks to health reduced to a safe and acceptable level.

7.2. Site Safety Assessment

To achieve a Safe Operation, those in charge of the Response must follow those generalised parts of the Contingency Plan, which apply in all circumstances.

Additionally, they must have available the means to prepare those elements of the plan which are Site and Response Specific.

The Site Safety Assessment is intended to prevent uncontrolled incidents occurring which may cause further damage to the environment or loss due to damage, injury or illness. The Site Safety Assessment should comprise the following sections:

- A. Site Survey
- B. Operations Analysis
- C. Site Control
- D. Logistics and Supplies
- E. Personnel.

Each section should be addressed and documented before work commences and the appropriate steps in place to ensure that requirements are adequately met.

(a) Site Survey

A Site Survey Form should be available, which when followed correctly will add all of those site unique details which assist in the decision making process and remind staff of essentials which might otherwise be omitted.

The Site Survey should address the safety of those personnel taking part in the clean-up as well as those members of the public who may also be involved.

The following list indicates a few of those subjects which should be addressed, assessed and reported in the survey. The list is by no means exhaustive.

- communications requirements;
- exposure to temperature;
- feasibility of handrails or ropes;
- hazards to the eyes;
- hazardous substances;
- lack of or shelter from weather;
- lighting conditions;
- machinery usage;
- noise levels;
- maneuverability;
- manual handling;

- pedestrian traffic;
- requirement to access confined spaces;
- sample collection;
- terrain surface and incline;
- vehicle traffic;
- visibility;
- water hazards.

(b) Operations Analysis

Having surveyed the site and assessed the aspects which are influenced by the terrain, water conditions, and other pertinent factors, the On-Scene Commander will assess the way in which the operation is to be conducted.

The intention to use the following facilities should be stated and the reasons for and priorities of each facility established.

- cranes;
- boats;
- breathing apparatus;
- dispersants
- fork lifts;
- hoses and pumps;
- low loaders;
- motor vehicles;
- raking and sweeping gear.

(c) Site Control

It is essential that those in charge of the spill clean-up have control of the site as soon as possible and before any significant part of the clean-up operation begins. Access to the site must be restricted to those personnel who are essential to the clean-up operation.

Arrangements must be made for the area to be barriered, closed and policed such that no one can enter the work area without reporting to the site supervisor. No workers should be allowed onsite until they have received the full vetting and briefing with respect to the Safety Plan.

(d) Logistics and Supplies

Specifically, with respect to safety, it should be ensured that the appropriate equipment, materials and substances are available at the required times.

Particular attention should be paid to the availability of the various sizes of the personal protective clothing and equipment required. This sometimes cannot be established until the members of the workforce have been detailed and their individual roles and tasks decided.

Consideration must be given for a prolonged clean-up operation, possibly stretching to 24-hour operations. In this case shelter, accommodation, feeding, refreshment, rest areas, sanitation and first aid must be available.

Where training has to be delivered prior to work commencing, the necessary instructors and equipment must be available before work commences. It is an error to allow experienced workers to commence work while others are waiting for training.

Protective Clothing. If the weather is at all inclement, the protective clothing issued to workers must be warm, water and chemical-proof. It should include coveralls, gloves, boots, eye protection and headgear. If the weather is warm, the use of the same protective clothing may be necessary, but the requirements for ventilation and cooling will be greater.

Personal Protective Equipment (PPE)

PPE includes;

- breathing apparatus including respirators;
- flotation suits and vests;
- gloves/gauntlets;
- protective clothing;
- goggles, visors and safety glasses;
- hard hats;
- insulated clothing;
- reinforced boots, shoes and gloves.

First Aid. The Health and Safety (First Aid) Regulations 1981, together with the New Code of Practice on First Aid lay down the requirements for trained first aiders and the equipment that must be provided. A foreshore clean-up is considered as a special circumstance and the appropriate extra provisions should be taken into account.

Personnel

Selection of personnel to carry out the clean-up must be dominated by safety considerations.

7.3. Safety on the Foreshore

During the execution of a foreshore Site Survey, access to the area to be cleaned must be carefully assessed. Account needs to be taken of low and high tides and the need for workers to access inlets, cliffs and terrain difficult to navigate. Tide tables should be consulted as well as the taking of advice from those with knowledge.

Where necessary and appropriate, the use of equipment such as handrails, ropes and ladders should be considered.

Where workers are, by necessity, required to work out of sight of one another, communication between them and the supervisor is essential.

The provision and use of Personal emergency Beacons and Distress Flares by appropriate personnel should be considered.

7.4. Safety on the Water

Agreements with the Coastguard should be reviewed and complied with. At the very least, they should be informed of the vessels operating in their area together with all necessary detail of vessel capability and persons on board (POB).

Protective Clothing. Workers operating from seagoing vessels should be equipped with harnesses which comply with:

- **BS EN 361** for full-body fall arrest harnesses- (belt-type harnesses are widely prohibited due to internal injury risks).
- **BS EN 355 & EN 358:** Standards covering shock-absorbing lanyards and work positioning/restraint systems.
- **ISO 12401:** International standard for deck safety harnesses and tethers used explicitly on seagoing vessels

They should, at all times, wear a self or automatic inflating lifejacket and should be protected by a survival suit.

7.5. Safe Operations

Risk Assessment

Hazard Identification. The identification of all hazards at a worksite or spill location is a singular task that should be done by involvement of the people who are expected to carry out the work. The supervisor responsible for co-ordinating the risk assessment should ensure that all hazards are identified before the next step in the process is attempted. A hazard is an object, place, processor circumstance with the potential to do harm in the form of injury, damage, delay or pollution.

7.6. Decontamination

Conditions requiring decontamination. Where workers have been wearing waterproof and protective clothing it is likely that the clothing will become contaminated by crude oil or chemicals that might have been used during the clean-up operation. The clothing needs to be cleaned to prevent further contamination.

Facilities for such cleansing should be made available either near to rest or feeding areas or close by, but clear of the work site

Personal hygiene practices on the job. Workers should be instructed on the dangers of ingesting hydrocarbons and chemicals through contact of contaminated equipment or clothing, such as gloves via the mouth and nose. Facilities for removing protective clothing and washing before consuming food or smoking should be made available.

Decontamination area drainage. The decontamination area where clothing and personal equipment is cleansed should be arranged so that cleansing water and contaminants are drained into tanks. Care should be taken to ensure that contaminated waste does not drain into either the normal drainage system or into the soil under the decontaminated area.

Disposal of contaminated clothing. Clothing which is not fully washable or capable of having all traces of contaminant removed may need to be disposed of safely. Such clothing may comprise Hazardous Waste. If incineration facilities do not exist at the site, the clothing may need to be delivered to the local authority or to a Hazardous Waste Contractor.

7.7. Health and safety regulations, likely to apply to major, clean-up operations

- First Aid at Work Regulations 1981
- Control of Noise at Work Regulations 2005
- Management of Health and Safety at Work Regulations 1999 Manual Handling Operations Regulations 1992
- Personal Protective Equipment at Work Regulations 1992 The Provision and Use of Work Equipment Regulations 1998
- Personal Protective Equipment at Work (Amendment) Regulations 2002
- The Control of Substances Hazardous to Health Regulations 2002
- Construction (Design and Management) Regulations 2015
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013

(NB each set of Regulations listed has a companion Approved Code of Practice or Guidance on Regulations.)

7.8. COSHH

Data sheets are available to all Broads Authority staff on our Sharepoint system .

8. Press and Public Information

8.1. Media and Information Policy

In the event of a pollution incident, it will be necessary for an efficient and comprehensive information service to be brought into action so as to:

- Deal professionally with the representatives of the media.
- Co-ordinate and release information to the general public regarding the pollution incident and the Broads Authority's response to it.
- Keep staff and Authority members informed of developments regarding the progress of the incident; insofar as it affects their responsibilities.
- Minimise the pressures on those directly concerned with combating the spill.

Responsibility for media relations will be dealt with by the Broads Authority's Public Relations Office (PRO). All enquiries are to be forwarded to the Broads Authority's PRO. No media interviews, soundbites or statements should be provided to the media without the involvement of the PRO. The only exception to this is the agreed 'holding statement' if the incident takes place out of normal working hours and all attempts to consult with members of the PRO have failed.

8.2. For guidance it would be expected as follows:

Tier 1 spill - Broads Authority involvement only

Tier 2 spill - Broads Authority, Ambipar (Tier 2 contractor), Local Authority's (as applicable)

Tier 3 spill - not applicable.

It is essential that the media are provided with a 'balanced' view of the incident and actions taken. Remarks like 'No comment' only increase rumour and fuel unnecessary speculation. Below is the format of an Initial Press Statement that can be used by a responsible Broads Authority representative pending full details becoming available and a press release issued. The statement should not be issued by non-members or the PRO unless the incident urgently requires it, it is out of normal working hours and all attempts to consult with members of the PRO have failed.

8.3. Initial Press Statement

"The Broads Authority confirms that an incident has occurred (*state where and give brief description*) at approximately (*give time*) hours today.

Emergency response procedures have been initiated and relevant authorities (*have been/are being*) advised. All support services are being co-ordinated through the Authority's incident response team and every possible effort is being made both to minimise risk to personnel at the scene and to contain and mitigate any effects.

Further information will be released, (*as it becomes available/at a press conference scheduled for time*) today".

9. Contact Directory

Broads Authority

Head Office, Yare House, Norwich, NR1 1RY

Reception Tel: 01603 610734

Broads Control: Yare House (9am to 6pm April to Oct, 9am to 5pm Nov to March)

Tel: 01603 756056

email: broads.control@broads-authority.gov.uk

Maritime and Coastguard Agency Operations Room (Humber)

Tel: 01262 672317

email: Zone10@hmcg.gov.uk

Environment Agency

Regional Control Room (24 hour) 0800 807060

email: incident@environment-agency.gov.uk

Marine Management Organisation

Emergency Contact dedicated Spill Response number

Tel: 0870 785 1050 If there is no reply call the 24hr Duty Room on: 0845 051 8486

email: info@marinemanagement.org.uk

Helpline: 0300 123 1032

Natural England

National Marine Incidents line Tel: 0300 060 1200

email marineincidents@naturalengland.org.uk

Peel Ports (Great Yarmouth Port Company)

Harbour Office Tel: 01493 335501

24 Emergency Tel: 01493 335511

email gyharbouoffice@peelports.com

HMRC

Tel: 0300 200 3700

Norfolk Resilience Forum

Tel: 01953 424 866

Email nrf@norfolk.pnn.police.uk

RSPB

Regional Office, 65 Thorpe Road, Norwich. NR1 1UD

Tel: 01603 660066

Strumpshaw Reserve Tel: 01603 715191

email strumpshaw@rspb.org.uk

Berney Marshes Reserve

Tel: 01493 700645

(if office not manned - for emergency ring Strumpshaw)

Norfolk Wildlife Trust

22 Thorpe Road, Norwich NR1 1RY

Tel: 01603 625540

email: info@norfolkwildlifetrust.org.uk

Ted Ellis Trust

Warden Wheatfen Reserve Tel: 01508 538036

Email: info@wheatfen.org

National Trust

Regional Headquarters at Blakeney

Tel 01263 740241

Warden Horsey

Tel: 07885 581 070

email: stephen.prowse@nationaltrust.org.uk

Norwich City Council

Customer Services: 0344 980 3333

Out of Hours: 01603 412180

North Norfolk District Council

Customer Services: Tel: 01263 513811

Out of Office Hours: Tel: 01223 849782

Broadland District Council

Customer Services: Tel: 01603 431133

Emergency Planning Manager Tel: 01603 430434

Out of Hours: Tel: 01603 705121

South Norfolk District Council

Customer Services: Tel: 01508 533701

Out of Hours: Tel: 0800 3896109

Great Yarmouth Borough Council

Customer Services: Tel: 01493 856100

Out of Hours: Tel: 01493 330369

East Suffolk Council

Customer Services: Tel: 0333 0162000

Out of Hours: Tel: 0800 4402516

Joint Emergency Planning Unit (JEPU)

Duty Officer 24/7 Tel: 01473 265376

emergency.planning@suffolk.gov.uk

Oil Spill Response Contractor (Tier

Two) Ambipar – **emergency response**

number Tel: (24hour) 01202 653558

Oily Waste Disposal Contractors

ZZRM-Customer Service Administration, ASCO UK

Tel: +44 1493 856 722

email: Technical.Sales@ascoworld.com

Offshore Supply Base, South Denes Road, Great Yarmouth, NR30 3LX

10. Resources Directory

Tier 1 - Resources held by Broads Authority:

Vessels

8 x River Patrol launches
1 x 4m RIB, 40 hp outboard
1 x 28' twin screw steel work barge
1 x 24' steel work barge
3 x 24' weed harvester/litter collecting barge
3 x 16m Wherries with open hold
2 x 18m Wherries with open hold
Tug Aberdour 10.5m
Tug Richard 9m
Tug Bantam 7.3m
0 cranes on pontoons (various locations on system).
4 x Land based crane at Dockyard. (only 1 of these could be loaded to pontoons)
5 x JCB excavators
1 x New Holland tractor with trailer (for agricultural use only)

Vehicles

Various including pick-up trucks, various sized vans

Oil Pollution Containment and Clean-up Equipment held by the Broads Authority

Containment boom

4 x 20m inflatable boom
2 x 10m inflatable boom
4 x 5 m inflatable booms

Sorbents

12 x 3m heavy duty sorbent booms
12 x 2m sorbent booms 12cm
150 x sorbent pads 46 x 46cm

Miscellaneous

Inflator for containment boom
50 x heavy duty oily waste disposal sacks
60 x light rubbish sacks
8 x oil sample bottles
Rond anchors and rope
50 x sandbags
Mudweights
Toolbox and miscellaneous hand tools
Telescopic floodlights/Floodlight stand

First Aid Kit

Assortment of manual and powered winches

2 x 'Oil Spill No Entry' signs

1 x red/white safety tape

Inflator for containment boom plus 12-volt adaptor

Ropes/shackles etc.

PPE

10 x Complete PPE kits

Coverall protective suits

Safety glasses

Rubber gloves

Leather gauntlets

Face masks

Ear defenders

100 x disposable rubber gloves

2 x First Aid Kits with eye wash

Handwipes

Miscellaneous tools

Torches / Batteries

Spot light. Flashing warning lights.

Patching/leak control equipment

2 x wreck buoys

Oil spill sample kit 2 x Buckets

First Aid Kit Mechanical hand Light on clamp Foot pump

Hand Saw Crow Bar Piston Air Pump

Sharps Container

Kits held on each of 8 Broads Authority patrol launches and 3 workboats

1x 3m sorbent boom 10cm diameter

1x sorbent pillow 40 x 8cm

10 sorbent sheets 46 x 46cm

1x nylon cord

2x heavy duty oily waste disposal sacks/ties

1x goggles

1x gloves

1x Instruction Sheet

Tier 2 equipment

Resources held by Tier 2 Response Contractor Ambipar Ltd for immediate deployment on call-out basis (on site 2 - 6 hours).

Equipment commensurate with Tier 2 responder. Exact equipment list to be reviewed at time of contract placement.

Appendix 1 – Plan distribution list

Distribution List	
Company	Copy Number
Broads Authority staff: • Chief Executive • Head of Safety Management • Head of Ranger Services (Navigation Officer) • Head of Operations • Director of Delivery • Head of Strategic Services	1 (Digital Copy)
MCA CPSO	2 (Digital copy)
MRCC Humber	3 (Digital copy)
Environment Agency	4 (Digital copy)
Great Yarmouth Port Authority	5 (Digital copy)
Peel Ports Great Yarmouth	6 (Digital copy)
Broadland District Council	7 (Digital copy)
South Norfolk Council	8 (Digital copy)
East Suffolk Council	9 (Digital copy)
North Norfolk District Council	10 (Digital copy)
Great Yarmouth Borough Council	11 (Digital copy)
Norfolk County Council	12 (Digital copy)
Norfolk Resilience Forum	13 (Digital copy)
Natural England	14 (Digital copy)
RSPB	15 (Digital copy)
Marine Management Organisation	16 (Digital copy)
Ambipar Response	17 (Digital copy)

Appendix 2 – Standard Pollution Report Form CG77

To MCGA – Humber
Copy to Agencies as required
From Broads Authority

Part 1 : Information which should be provided in an initial pollution report

A. Classification of report

(i) **doubtful**

(ii) **probable**

(iii) **confirmed**

(Delete as necessary)

B. Date: _____ **Time:** _____ **pollution observed**

Identity of observer/reporter _____

C. Position of pollution: _____
(by latitude and longitude if possible, state range and bearing from some prominent landmark)

Extent of pollution: _____ **Litres/barrels/tonnes**

Size of polluted area _____ **from:** _____
(from where sighted)

(estimated amount of pollution, e.g. size of polluted area, number of tonnes of oil spilled or number of containers. When appropriate position of observer)

D. Wind Speed _____ **knots; direction from:** _____

Tidal status at time pollution observed: _____ **after/before HW/LW**

E. Weather conditions and sea state:

_____ **sea state/ wave height** _____ **metres**

F. Characteristics of pollution:

Type: _____
(E.g. oil, crude, diesel, packaged bulk chemicals UN number if known, garbage)

Appearance: _____
(E.g. liquids, floating solid, liquid oil etc.)

G. Sources of pollution: _____
(from vessel or other undertaking)

Cause of pollution: _____

(Apparent deliberate or casualty. If the latter give a brief description. Where possible name, type, size and nationally and Port of Registry or polluting vessel. If vessel underway gives course speed and destination if known).

H. Details of other vessels in the area _____
(to be given if the polluter cannot be identified and the spill is considered to be of recent origin)

I. **Photograph taken** Yes / No
Sample taken for analysis Yes / No

J. **Remedial action taken, intended to deal with spillage:**

K. **Forecast of likely effect of pollution:** _____

L. **Names of those informed other than addresses:**

M. **Any other relevant information:** _____

(E.g. names of other witnesses, references to other instances of pollution)

Part 2 : Supplementary Information which should be provided Later
(this may be disregarded when POLREPS are for UK internal distribution only)

N. **Results of sample analysis:** _____

O. **Results of photographic analysis** _____

P. **Results of supplementary enquiries** _____

(E.g. inspection by surveyors, statements from ship's personnel etc.)

Q. **Results of mathematical models:** _____

Appendix 3 – Incident log sheet

Incident:

Date:

Name:

Location:

[illegible]

Appendix 4 – Broads wildlife and habitat importance and designations

1. Summary

The Broads is one of Europe's finest and important wetlands for nature conservation. It includes designated sites for nature conservation, including 28 Sites of Special Scientific Interest (SSSIs), which cover 24% of the Broads executive area. One-third of SSSIs are designated National Nature Reserves (NNRs) (Map 3). Virtually all SSSIs also have international designation under European Habitats and Birds Directives and Ramsar Convention (Map 4). For more on the legislation see section 3 in this Appendix.

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. Often, hydrological connections between the waterways, fens and grazing marsh dykes will result in pollution in one part of the wetland affecting a wide area.

The Water Framework Directive establishes a framework for protection surface water, groundwater, and coastal and transitional waters. Targets are set to protect and improve the ecological status of the waterbodies.

2. Habitats

Maps 1 and 2 show the distribution of important habitats for nature conservation in the Broads.

2.1. Water and Reedswamp

There are 63 broads, of which 68% are directly connected to the rivers. Pollution from the river has been shown to affect these connected broads. Several of the broads and rivers are home to rare aquatic plants; some found nowhere else in the UK, such as holly-leaved naiad and intermediate stonewort.

2.2. Fens and Reedbeds

The Broads has the largest expanse of lowland species-rich fen in lowland Britain. Fens and reedbeds as part of the Broads wetland are in hydrological connection to the river water thus water quality is important for this habitat as it is for the open water itself.

2.3. Estuary

Breydon is an important salt marsh area with mud-flats which provide an internationally important staging post for migratory birds.

2.4. Grazing Marshes

These drained or grazing marshes, if managed correctly provide habitat to farmland birds, particularly waders and wildfowl. The grazing marsh dykes are important for aquatic plants and rare invertebrates such as snails. Water to supply these dykes can come from the river. This is the case for Halvergate Marshes Special Area of Conservation, (SAC) where river water is pumped into the grazing marsh dykes via the Stracey intake.

3. Legislation

3.1. International Legislation

Ramsar Convention: Or to give it its full title, the ‘Convention on Wetlands of International Importance, especially as Waterfowl Habitat’. This is a global convention, signed at Ramsar in Iran in 1971, and ratified by the UK in 1976. It has 3 main aims: designation of wetlands as Ramsar sites, ‘wise use’ of wetlands, and international co-operation.

3.2. EU legislation

Habitats Directive: To promote maintenance of biodiversity by requiring member states to take measures to maintain or restore habitats and species at ‘favourable conservation status’, with national governments reporting to the EU every 6 years. It includes designating a series of protected sites (Special Areas of Conservation SAC), which together with SPAs classified under the **Birds Directive** (see below), makes up an EU-wide network of sites (the **Natura 2000** series).

Birds Directive: Requires member states to take steps to protect listed bird species and the habitats on which they depend by classifying Special Protection Areas (SPA).

Both the Habitats and Birds Directives are enshrined in UK legislation under the Conservation (Natural Habitats &c) Regulations 1994, otherwise known as the ‘Habitats Regulations’.

Water Framework Directive: To establish a framework for protection of inland surface waters (and) groundwater. It aims to ensure all aquatic ecosystems, and, with regard to their water needs, all terrestrial ecosystems and wetlands meet ‘good status’ by 2015. The Directive requires member states to establish river basin districts and management plans, to be reviewed every 6 years.

3.3. UK legislation

Wildlife and Countryside Act 1981 (as amended): this underpins statutory nature conservation in the UK, and most significantly, makes provision for the notification by English Nature of Sites of Special Scientific Interest (SSSI), and where appropriate, National Nature Reserves managed by ‘approved bodies’ other than EN.

The Act is supplemented and amended by the **Countryside and Rights of Way Act 2000**, which strengthens protection of SSSIs by giving English Nature greater enforcement powers,

and makes provision for open public access to certain types of land (defined as mountain, moor, heath, and down). Section 28 places a duty on all public bodies, including the Broads Authority, to enhance the special interests of SSSIs.

The provisions of the 1995 Environment Act (Section 62) and 2000 CRow Act (Sections 85 and 97) confer statutory duties on 'relevant authorities', which include statutory agencies and local authorities, to have regard to the purposes of national parks, Areas of Outstanding Natural Beauty and the Broads.

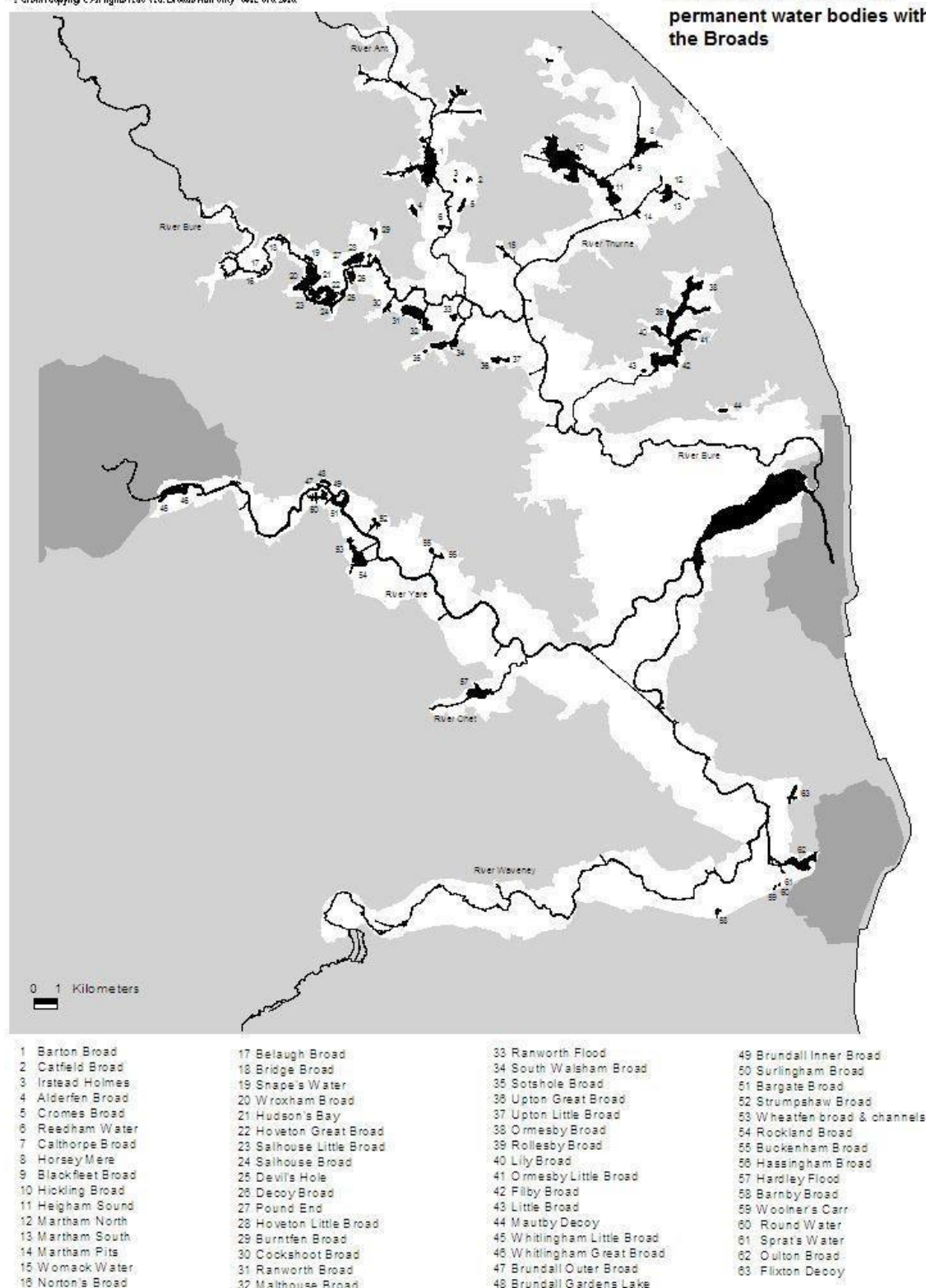
Map 1: location and condition of permanent water bodies within the Broads

Data Sources:

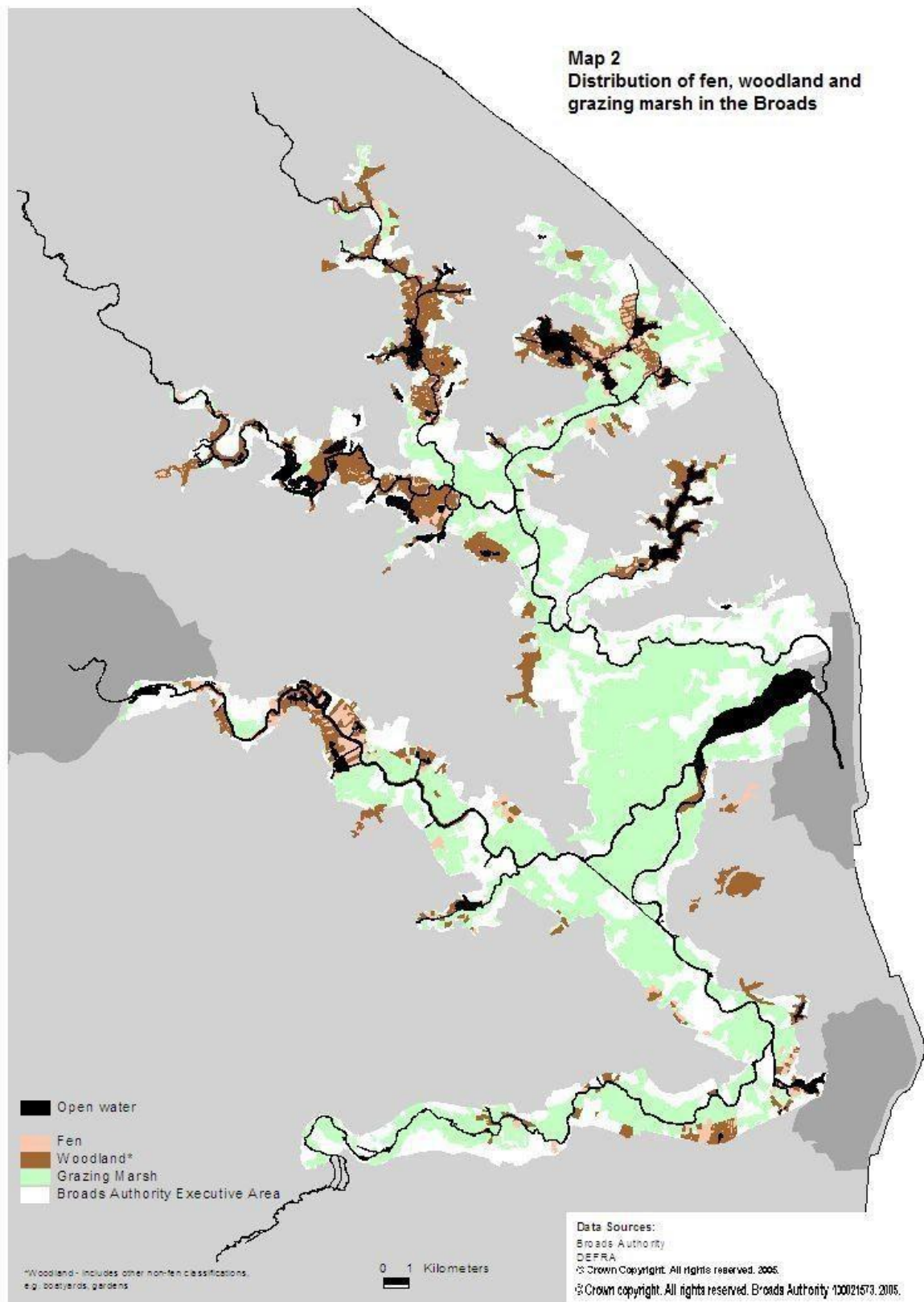
Broads Authority

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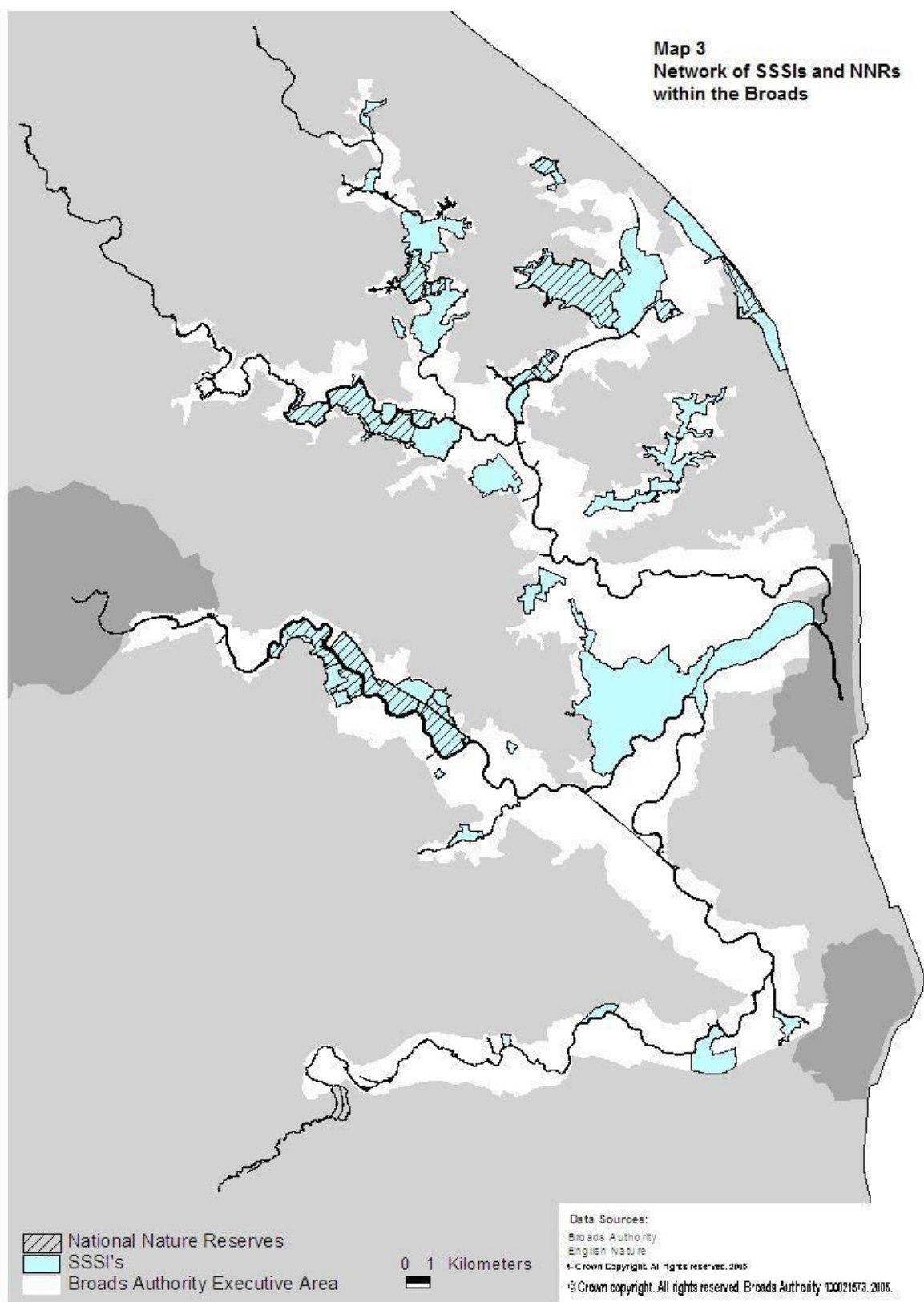
Map 1
Location and condition of
permanent water bodies within
the Broads



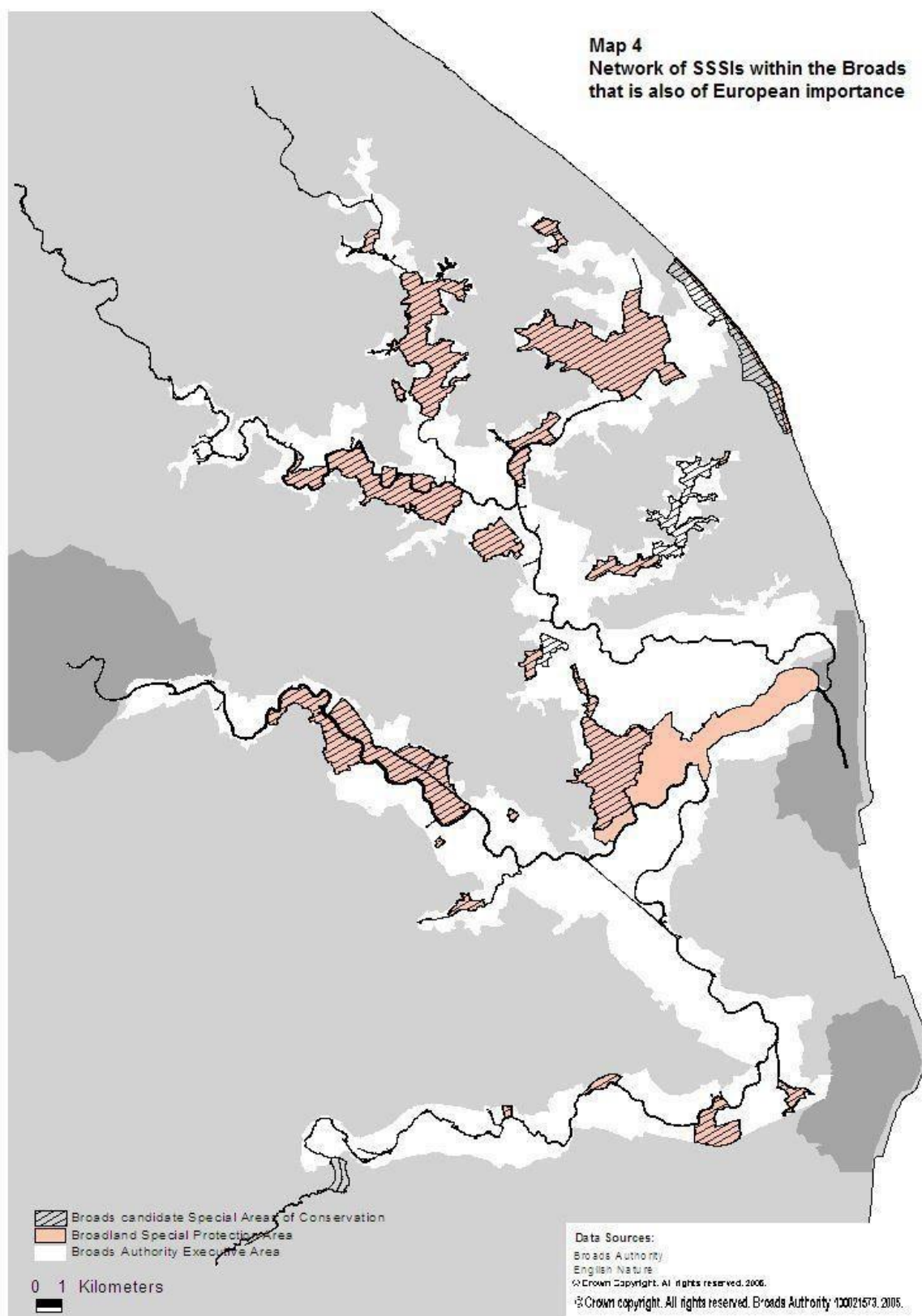
Map 2: Distribution of fen, woodland and grazing marsh in the Broads



Map 3: Network of SSSIs and NNRs within the Broads



Map 4: Network of SSSIs within the Broads that is also of European importance



Appendix 5 –Diesel retail outlets and toilet disposal facilities

August 2025

Location	Site	Diesel Retail	Pump Out	Chemical Toilet Disposal
Acle	Bridge Craft	Yes	Yes	No
Barton Turf	Cox's Boatyard	No	No	Yes
Beccles	Quayway Boats, Bridge Wharf	Yes	Yes	No
	Galleon Moorings, Puddingmoor	No	Yes	Yes
	H E Hipperson Limited, Waveney Wharf	Yes	Yes	No
Brundall	Broom Boats	Yes	Yes	No
	Brundall Bay Marina	No	No	Yes
	Swancraft	Yes	Yes	No
Burgh Castle	Goodchild Marine, Burgh Castle Yacht Station	Yes	Yes	No
Burgh St Peter	Waveney River Centre	Yes	Yes	Yes
Geldeston	Rowancraft Limited, Staithe Yard, Big Row	Yes	Yes	Yes
Hickling	Whispering Reeds	No	Yes	No
Horning	Boulter Marine	Yes	Yes	No
	Ferry Marina	Yes	Yes	No
	Southgates Boatyard	Yes	Yes	No
	Horning Village Marina (Southgates)	Yes	Yes	No

Location	Site	Diesel Retail	Pump Out	Chemical Toilet Disposal
Hoveton/Wroxham	Brinkcraft Limited Riverside Road Hoveton	Yes	Yes	No
	Bridge Broad Marina	No	Yes	No
	Norfolk Boat Sales, Riverside Road	Yes	Yes	No
	Sabena Marine	Yes	Yes	Yes
	Summercraft, Brimblelow Road	Yes	Yes	No
Loddon	Pacific Cruisers The Pits Chedgrave	Yes	Yes	No
Ludham	Ludham Bridge Boatyard	Yes	Yes	Yes
Martham	Martham Boats	Yes	Yes	Yes
Norwich	Norwich Yacht Station (April-October)	No	Yes	Yes
Oulton Broad	Broadlands Marina/Tingdene, Marsh Road	No	Yes	No
Potter Heigham	Herbert Wood	Yes	Yes	Yes
	Maycraft	No	Yes	Yes
South Walsham	Marine Tech	Yes	Yes	Yes
Stalham	Richardson's	Yes	Yes	Yes
	Stalham Marine Services	Yes	Yes	Yes
Sutton Staithe	Sutton Staithe Boatyard	Yes	Yes	No
Upton	Eastwood Whelpton	No	No	Yes

Appendix 6 – Strategic Oil Booming/Container Sites

The following are sites where oil booming might be deployed to prevent oil spreading into designated conservation sites, nature reserves or important habitats, or simply to prevent oil spreading under influence of wind or tide. The significance of each booming site is recited. In many cases booming would be for deflecting oil spills rather than containment/removal, because of the remoteness and difficulty of access for oil recovery.

Some sites would be operable only at certain times, especially because of strength of tidal stream or strong fluvial currents after heavy rainfall.

This schedule of sites is complimentary to Appendix 7, which indicates appropriate to contain oil near source, including sites at high risk due to proximity of boatyard operations, fueling etc.

River Bure

Wroxham: Wroxham Viaduct to Wroxham Viaduct BA Moorings

Boom diagonally across the river from viaduct piers to mooring frontage. To contain a major spill in Wroxham from spreading upriver on flood tide into the unspoiled reaches and Bridge Broad. Would close river to navigation but effect on traffic would be limited. Access to moorings for oil recovery not good but workable. There is available space for temporary oil storage tank. Tidal streams gentle and well sheltered.

Wroxham Broad North and South Entrances

To deflect a major spill in the main river near Wroxham from entering and polluting Wroxham Broad. Both entrances are fairly narrow. Tidal streams are gentle. Access for oil recovery is poor.

Salhouse Broad East and West Entrances

To deflect a major spill in the main river from entering Salhouse Broad.

Hoveton Great Broad Entrances

Upper entrance overgrown and difficult to boom. Lower entrance (opposite Woodbastwick Hall) better defined and more easily boomed. Potential to protect very large area of high conservation importance from pollution.

Hoveton Little Broad (Black Horse Broad) Dyke

Single narrow dyke, if boomed could prevent spillage entering Hoveton Little Broad or Pound End.

Ranworth Dam

Boom across mouth of Ranworth Dam to prevent oil from entering Malthouse Broad and Ranworth Broad from a spill in Main River. Significant disruption to navigation acceptable.

Ranworth Broad

Boom across entrance to Ranworth Broad to deflect spill in Malthouse Broad from entering Ranworth Broad.

South Walsham Fleet Dyke

Boom across mouth of Fleet Dyke to deflect oil in main river from entering the dyke and broad and the high grade marshes which take water from Fleet Dyke.

Boom diagonally across Fleet Dyke near entrance of South Walsham Broad to contain oil spilled into Broad from spreading to main river and marshes. Possibility of oil recovery at Environment Agency moorings: access poor but space available for temporary containment. Tidal streams gentle.

Great Yarmouth Yacht Station

Boom alongside any moored vessels to protect them from oil contamination. Chevron booming where possible.

Oil can be recovered at site if tide is favourable. Good storage areas available but venue are open to the public and closure should be considered. Tidal flow can be in excess of 4mph.

River Ant**Wayford Bridge**

Containment boom diagonally across river from Mr Cooks houseboat site immediately above the bridge to moorings opposite, to contain oil spilled downriver from entering North Walsham and Dilham Canal and Broad Fen or Dilham Arm. Gentle streams. Reasonable access to moorings for oil removal and space available for temporary oil storage tanks. Disturbance to navigation minimal.

Stalham Arm

Boom across mouth of Stalham Arm to deflect oil in Main River from entering Stalham Arm and Sutton Broad. Access for recovery very poor/impossible.

Barton Turf

Booms across main channel (south of Heater Island) and Paddy's Dyke to deflect oil spilled on Barton or in Upper Ant from entering Barton Turf.

Neatishead Arm

Boom across Gay's Staithe to north bank to prevent oil spilled in Barton Broad or main river from entering Limekiln Dyke, conversely to contain oil in Limekiln Dyke from entering Barton Broad, with good oil recovery possibilities at Gay's Staithe.

Irstead Staithe

Diagonal cross-river booming to contain oil at staithe. Possible to install boom for either flood or ebb tide use. I.e. to contain spills on Upper Ant or prevent spills in lower river spreading onto Barton Broad. Good oil recovery possibilities and access. Minimal disruption to navigation.

Ludham Bridge

Diagonal cross-river booming upriver at Ludham Bridge with fair access both sides for oil recovery on flood or ebb. Moderate tidal streams clear of bridge hole. Major disruption to navigation.

River Thurne**Waxham Cut**

Boom across mouth of cut to deflect oil from entering. Very little tide. Very poor access and no possibility of oil recovery from shore. Minimal navigation disruption.

Meadow Dyke

Booming possible at either end of dyke to contain oil to area of source, but access very poor and not practicable to recover oil from shore. Very moderate streams.

Candle Dyke/Thurne Junction

Possible deflecting booming site to prevent oil coming upriver from Potter Heigham from approaching Hickling/Horsey. Possible effective especially if used in conjunction with (a) a secondary containment/collection boom diagonally across river to the Eel Set by the Holt (or Candle Dyke) and (b) deflection boom at Martham Ferry to deflect oil for collection in Martham Ferry Dyke where access for recovery is good, thus minimising spread upriver towards Martham Broad. A further secondary collection boom might be installed at Dungeon Corner. Moderate navigational disruption but extremely high conservation priority.

Such a deflection/containment system would be even more effective if a diagonal cross-river boom from Broads Authority moorings, Martham Bank, to mooring basin on Broads Authority land immediately down river of bypass road bridge.

Potter Heigham

Flood tide containment boom diagonally across river from premises of former Bridge Hotel immediately upriver of bridge to Broads Authority frontage opposite with collection and removal from mooring basin at upriver end of Broads Authority frontage. Good access and still water in mooring basin. Moderate tidal stream. Ebb tide containment by diagonal cross river boom from Broads Authority moorings, Martham Bank, to mooring basin on Broads Authority land immediately down river of bypass road bridge.

Womack Water

Deflection boom across entrance of Womack Dyke to prevent oil in main river entering dyke,

with possible secondary deflection boom across dyke, deflecting oil into Broads Authority field base mooring basin for removal.

River Yare

Whitlingham Country Park/Thorpe Meadow

Diagonal booming across River Yare from Thorpe Marshes to piling at southern end of Whitlingham Country Park. Used on ebb tide for any spills from Norwich or Thorpe Island area. Containment and access from woodland car park at Whitlingham Country Park.

Thorpe Rail Bridges (Upper or Lower)

Boom installed across the bridges could prevent spill emanating from Thorpe Old River entering the main River Yare or vice versa. Access for oil recovery is poor, especially at lower bridge and streams can run moderately strongly. Effectiveness probably greatest if deployed as deflection booms to prevent main river pollution from entering the Old River.

Great Yarmouth

Underway Containment and Recovery (With support from Ambipar Response and vessels of opportunity, utilise purpose built containment and recovery systems to corral the slick along the Yare and in Breydon Water). Tidal flow can be in excess of 5 mph. See Appendix for plan

Surlingham Broad Dykes

Booms could be deployed across the mouths of both Surlingham Fleet Dyke (the short dyke at the downriver side of the broad) or Surlingham Birds Dyke (the longer dyke at the upriver, west end of the broad) These would be deflection booms to prevent main river oil spills from entering the broad. Shore access to both dykes for oil removal is very poor or impossible. A spill within Surlingham Broad would be contained with booms across the dykes and in this case would be essential also to deploy a boom across the dyke at the junction of Birds Dyke and the broad, which gives access to a very large area of marsh and reed bed and the creeks up to Surlingham Staithe. Disruption to navigation by closure would be minor.

Rockland Broad Dykes

Booms would be deployed across the mouths of Rockland Fleet Dyke (the longer upriver dyke and the short, downriver dyke to deflect main river oil from entering the broad and thence the dykes and reed beds of the Ted Ellis Wheatfen Reserve. This would be a high priority in view of the undefended and highly vulnerable nature of this very important reserve and its habitats.

Haddiscoe New Cut

It should be a primary aim to prevent oil spillage in the Yare entering the Waveney system and vice versa. It is therefore important to deploy containment booming in the Haddiscoe new cut to cope with oil passing in either direction. The Reedham end of the cut is not ideal; on the ebb the flow is mainly from Haddiscoe towards Reedham, leading to turbulence and strong streams at the Reedham junction. Access for oil removal is also extremely poor. A more appropriate place to deploy containment booming would be the vicinity of the Haddiscoe Flyover with diagonal cross river booming and oil removal from the moorings immediately west of the flyover, which has good road access and space for temporary tank storage.

River Waveney

Geldeston Locks

Possible deployment of containment boom across the main river beneath the footbridge near the Locks Inn (the head of navigation) with containment and removal from meadow opposite. Boom able to be deployed for both flood and ebb tide operation to contain oil from downstream entering the non-navigable river to Ellingham and up-river oil entering the navigable sections below Geldeston.

Geldeston Dyke

Deflection boom across mouth of Geldeston Dyke to prevent main river oil from entering the dyke and boatyard moorings.

Beccles Dam Bridge

Ebb tide containment boom using bridge fendering Gillingham side for securing, running diagonally across river to town side with deflection onto Loaves and Fishes Dyke for removal. Good access to dyke for oil removal and temporary storage. To contain oil spills emanating from Beccles and upriver. Strong stream may be experienced on spring ebbs or after rainfall. Moderate disruption to navigation.

Beccles Bypass Bridge

Diagonal cross river containment booming beneath Bypass Bridge to public bridge mooring frontages immediately downriver of bridge. Good access for oil removal but still water containment area and river subject to moderately strong streams on spring ebbs and after rainfall (2-3 knots).

Haddiscoe Environment Agency Depot

Possible deflection booming to deflect surface oil into New Cut for containment and removal adjacent to Haddiscoe Cut junction. Strong streams would require midstream anchors.

Appendix 7 – Oil Spill Booming – Potential Locations

Boatyards Basins/Mooring Dykes etc

The following are locations where there is an increased risk of oil spillage due to boatyard operations, refueling etc. and where containment booming could be effective to contain oil spills close to source and minimise spread of oil into the main river system.

This schedule is complimentary to Appendix 4 which indicates strategic containment or deflection booming sites where deployment might protect particular areas, including conservation designated sites, nature reserves etc.

River Bure

Wroxham

- Bridge Broad moorings/ Connoisseur Cruisers. Across entrance to broad/moorings
- Broads Tours/Faircraft Loynes mooring basin entrance
- Moores Boatyard basin entrance
- Powles Marina entrance
- Ashtons mooring basin entrance
- Barnes Brinkcraft basins upper and lower
- Daisy Broad entrance (from Beehive)
- Summercraft Boatyard/mooring dyke/Across entrance from Wildwood (Mr Royall)

Horning

- South Quays Marina
- Percivals mooring basin (opposite staithe)
- Burehaven moorings dyke
- Ferry Marina Dyke
- Woods Dyke
- Horning Pleasurecraft basin entrance

Cookshoot Dyke/South Walsham Broad/Boundary Farm Dyke/Oby Dyke/Upton Dyke

- R & J Russell boatyard basin

Acle

- Horizon Craft boatyard basin
- Anchor Craft/ Bridgecraft Dyke
- Acle Boat Dyke/Hermitage Dyke entrance

River Ant**Wayford Bridge**

- Wayford Marina upper basin
- Wayford marina middle basin
- Wayford Marina downstream dyke
- Smallburgh Staithe dyke
- Peter Linfords mooring dyke

Stalham

- Keir Bedwells Chapelfield mooring basin
- Broadsedge Upper Dyke/Lower Dyke/Mooring basin
- Stalham Yacht Services basin entrance
- Richardsons boatyard main basin entrance

Sutton Staithe

- Boatyard basin/Boatyard mooring basin

Barton Turf

- Coxs Boatyard moorings entrance
- Coxs Boatyard upper dyke (adjacent to staithe)

River Thurne**Horsey Staithe Dyke****Hickling**

- Pleasureboat Dyke
- Staithe Dyke
- Whispering Reeds Dyke

Martham Ferry Dyke**Martham Staithe Dyke****Potter Heigham**

- Repps (upper) staithe dyke/Phoenix Fleet
- Staithe Dykes/Herbert Woods Dayboats
- Broadshaven entrance
- Repps (lower) staithe dyke

Thurne

- (west bank) EACC mooring dyke

Thurne Dyke

- Inner end/Lambs moorings
- Entrance

River Yare**Thorpe**

- Reliance Boat dyke entrance

Thorpe/Whittlingham

- BA Commissioners Cut Mooring dyke

Thorpe/Griffin Lane

- Griffin Marine Dykes/Highcraft Boatyard dyke

Brundall Gardens

- J Broom boatyard dyke
- Brundall gardens marina/Linder boats basin entrance

Brundall

- Bells Marina entrance dyke
- Brooms upper (hirecraft) basin (adjacent to shop)
- Brooms middle (hirecraft) dyke
- Brooms marina entrance
- Hobro's dyke across mouth of dyke
- Brundall Bay Marina entrance

Rockland

- Boat dyke; across mouth of dyke

Langley Dyke

- Across mouth of dyke

Hardley Dyke

- Across mouth of dyke

Reedham

- Holly Farm mooring dyke/Yareside moorings

River Chet**Loddon**

- Princess Cruisers (Aston Boats) boatyard basin
- Mistral Craft to upper end Pyes Mill mooring (crossover)

River Waveney**Geldeston Locks**

- Downriver and Broads Authority moorings to centre island

Geldeston Dyke

- Rowan Craft; across rail bridge hole/ Rowan Craft; across bridge bypass channel
- Across mouth of dyke

Beccles

- Anglia Yacht Brokers Sales Dyke; across mouth of dyke
- Yacht Station; across Yacht Station dyke mouth
- Aston Boats; across boatyard basin entrance
- Hipperson Boatyard; across boatyard basin entrance

Burgh St Peter

- Waveney Yacht Centre, Staithe dyke, across mouth
- Waveney Yacht Centre, upper basin, across entrance
- Waveney Yacht Station, lower basin, across entrance

Oulton Broad

- Broadland Holiday village basin entrances

- Colemans Dyke entrance

Somerleyton

- Crown Cruisers basin. Across entrance

St Olaves

- St Olaves marina across entrance
- Alpha Craft boatyard across mouth of mooring dyke
- Castle Craft boatyard across mouth of mooring basin

Navigation Committee

03 September 2026

Agenda item number 11

Reedham Swing Bridge

Report by The Director of Delivery

Purpose

To update Members on the mechanical issues affecting Network Rail's (NR) Swing bridge at Reedham and inform them of the interaction between the Broads Authority and Network Rail and the timetable for repairs.

Broads Plan context

Theme C: Maintaining and Enhancing the Navigation, C2 Maintain low bridges, incl. Carrow Bridge, to allow opening/ closing for navigators, and provide clearance information to navigators.

1. Introduction

- 1.1. Network Rail (NR) maintains several bridges spanning the Norfolk and Suffolk Broads, Reedham, Somerleyton, Oulton Broad, Trowse and low bridges at Thorpe, Norwich. Of these bridges, three are swing bridges (Reedham, Somerleyton and Oulton Bridge); Trowse Rail Bridge also opens, but due to the overhead electricity, it uses a slightly different system.
- 1.2. Both Reedham and Somerleyton swing bridges operate using similar mechanics. When required to open to allow river traffic to pass (opened on demand when track use allows), the bridge structure is 'jacked up' using powerful hydraulic rams. This lifting action disengages the bridge from the tracks and allows the bridge to be supported on a central 'Pintle Bearing'¹. Once the bridge is supported centrally, a pulley system using electric motors slews the bridge on its pintle to allow vessels to pass unabated.
- 1.3. The original single-track bridge at Reedham was commissioned by Sir Samuel Morton Peto in the 1840's to allow the passage of wherry boats, which were too tall to pass under conventional bridges. The current dual-track swing bridge was installed in 1902 and commissioned in 1903.

¹ A pintle bearing is a specialised pivot bearing that supports the vertical weight and rotational steering forces.

- 1.4. The River Yare (and the New Cut linking it to the Waveney at Reedham) was made a navigable route for shipping under the **Norwich and Lowestoft Navigation Act 1827**; this passed as the Norwich and Lowestoft Navigation Act 1827 on 28 May 1827, creating the Norwich and Lowestoft Navigation Company and authorising the works.
- 1.5. When the railway was later built across the Yare at Reedham, it needed its own Act of Parliament to cross a statutory navigation. The Reedham and Lowestoft Railway was sanctioned in 1845 as part of the Lowestoft Railway and Harbour promotion of 1844, opening in 1847; therefore, the enabling legislation for the opening of Reedham Swing Bridge would be the **Lowestoft Railway and Harbour Act 1845**

2. Current Mechanical Issues

- 2.1. During a routine opening of Reedham Swing Bridge in early June 2026, the bridge operator, who controls the jacking and slewing operation of the bridge from Reedham Signal Box, reported a loud ‘shotgun’-like sound as the bridge started its rotation. The bridge completed its opening and closing, but Network Rail bridge engineers attended the site to investigate.
- 2.2. Due to the Edwardian design of the bridge (original from the early 1900’s), access to the mechanical elements means NR must follow current health and safety processes contained within the Confined Spaces Regulation 1997. This limits persons within the mechanical area and means additional, time-consuming procedures need to be adhered to, adding further complexity to working on a live rail system.
- 2.3. Upon inspection, NR Engineers found that the pintle bearing is cracked. The pintle sits within a cast iron housing, which contains lubricating oil and greases the pintle. The pintle, when fully loaded, needs to support the entire weight of Reedham Swing Bridge and withstand the rotational forces of the bridge’s weight turning. The cracked bearing meant the lubricating oils had dispersed (the oil was contained within the housing sump, so no pollution to the river); the bearing was dry, and the ‘shotgun’ sound was the metal bearing grinding on itself.
- 2.4. NR engineers assessed the central bearing to be in full failure, and continued operations of the swing bridge were suspended immediately, for fear of failures within other critical lifting and slewing components. Any further degradation of mechanical parts could see the bridge out of commission for many months.

3. Broads Authority Actions

- 3.1. NR swing bridge mechanical failures are not a recent issue, and broads waterway users have been blighted by sporadic, inoperable swing bridges, due to mechanical or thermal expansion issues for many years.
- 3.2. In 2010, the then Director of Waterways presented a paper to the Broads Authority, addressing the issues with the swing bridges. This paper was accompanied by legal counsel (*legally privileged and still exempt from public disclosure*), which specifically

examined the legal options the Broads Authority has at its disposal to resolve these bridge issues.

- 3.3. The concluding legal advice was that the legislation to be relied upon in any action was dated. The Norfolk and Suffolk Broads Act 1988 section 2(7), does provide the powers common to those enjoyed by most statutory bodies, viz ‘the power to do anything necessary and expedient for the purpose of carrying out its functions’, but there is no express power to prosecute given to the Authority but, the residual power in section 2(7) would be adequate to mount a legal challenge.
- 3.4. Any such challenge would be a civil action; the penalties would be relatively light, and the costs of prosecuting would be substantial, with no assurances of a positive outcome for the Authority.

4. The ‘Undertaking’

- 4.1. The conclusion of the 2010 paper to the Broads Authority, that was agreed and followed, was to establish an ‘Undertaking’, to be drafted and submitted to Network Rail to agree to, essentially establishing that Network Rail is willing to use their “reasonable endeavours” to operate the bridges properly.
- 4.2. This ‘Undertaking’ also establishes agreements around communications, notifications about bridge works, publicising bridge closures, and improving the working relationship between Network Rail and The Broads Authority.
- 4.3. The Undertaking was agreed and signed by Network Rail in 2010.
- 4.4. Since 2010, the Broads Authority has maintained a close working relationship with Network Rail; the Director of Delivery has regular contact with a range of NR staff, is provided with status updates and attends joint meetings with the network managers and rail operators.

5. Network Rail’s Bridge repair programme

- 5.1. The severe mechanical failure of the central bearing resulted in Network Rail stopping any opening of Reedham swing bridge in July. This complete halt to bridge operations meant many of the broads’ larger vessels were effectively stranded and the Broads Authority made strong representations to Network Rail, resulting in two limited-time opening sessions in late July and early August, to allow some passage past the bridge.
- 5.2. Both time-limited openings were completed, and a total of 28 vessels transited Reedham. A Broads Authority Ranger was on station at both openings to ensure those vessels who needed the bridge to be open were given priority.
- 5.3. Using best endeavours, NR has prioritised the repairs at Reedham, undertaking preparatory works, including the erection of a temporary support frame to take the weight off the bearing while it is replaced. At the time of writing, the central bearing is

planned for removal on 8 & 9 August, and a replacement bearing is planned to be installed on 29 and 30 August.

5.4. Reedham swing bridge is expected to return to full operations by mid-September.

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Date of report: 05 August 2026

[Broads Plan](#) strategic objectives: Theme C2 Maintain existing navigation water space and develop appropriate opportunities to extend access for various types of craft