Navigation Committee

22 January 2026
Agenda item number 8

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.

Contents

1. Achieving Waterways Specifications

1.1. The detailed breakdown in Appendix 1 gives the figures and volumes for the current dredging programme for 2025/26 (April 2025 to end November 2025). A total of 6,600 m^3 of dredged sediment has been removed from the prioritised sites. This figure represents 24% of the programmed target of 27,380 m^3 for the year.

1.2. Owing to the brackish nature of the Upper Thurne waterways and as part of routine procedure, Broads Authority Ecologists monitor water quality whenever dredging works are planned for the area. Monitoring commences one month before works are due to start and continues at weekly intervals throughout the active works period. The water quality parameters measured include temperature, dissolved oxygen, pH, Secchi depth (a measure of water clarity), and conductivity (a measure of salinity). Maximum thresholds for dissolved oxygen (combined with temperature) and conductivity are set to prevent dredging during times of environmental stress, safeguarding sensitive freshwater species such as fish.

1.3. With dredging planned to start in Hickling Broad from October, monitoring commenced at the beginning of September, revealing normal background levels across all parameters. However, following the salt tides in October, salinity levels increased significantly, exceeding the safe operating threshold of 8,400 µS/cm at all the sampling locations. Hickling Broad and Heigham Sound recorded levels above 15,000 µS/cm during mid-October, with sampling sites along the main river at Martham Ferry peaking at over 14,000 µS/cm by the beginning of November. These high conductivity levels prevented dredging from starting as planned.

1.4. Monitoring has continued, with conductivity levels remaining above threshold in Hickling Broad and Heigham Sound, but as of the end of November, falling below the threshold within the main river. With levels remaining below threshold in this location, dredging commenced upstream of Martham Ferry on the 3rd of December.

1.5. The two-month delay in starting dredging works, coupled with the relatively short operating window in the Upper Thurne (October to Feb/March), means that a smaller programme than planned will be undertaken this winter. The focus will remain on the main river, working upstream from Martham Ferry towards West Somerton to remove shoals of accumulated sediment. The section downstream of Martham Ferry to Candle Dyke will then be completed, should time allow. Martham Boat Dyke will also be dredged using a land-based machine, with the sediment sidecast onto the bank. All sediment removed from the main river will be undertaken using floating equipment and transferred to the re-use site at Chara Bay using wherries and pump.

1.6. Plans are now being prepared to postpone dredging of the marked channel within Hickling Broad until winter 2026.

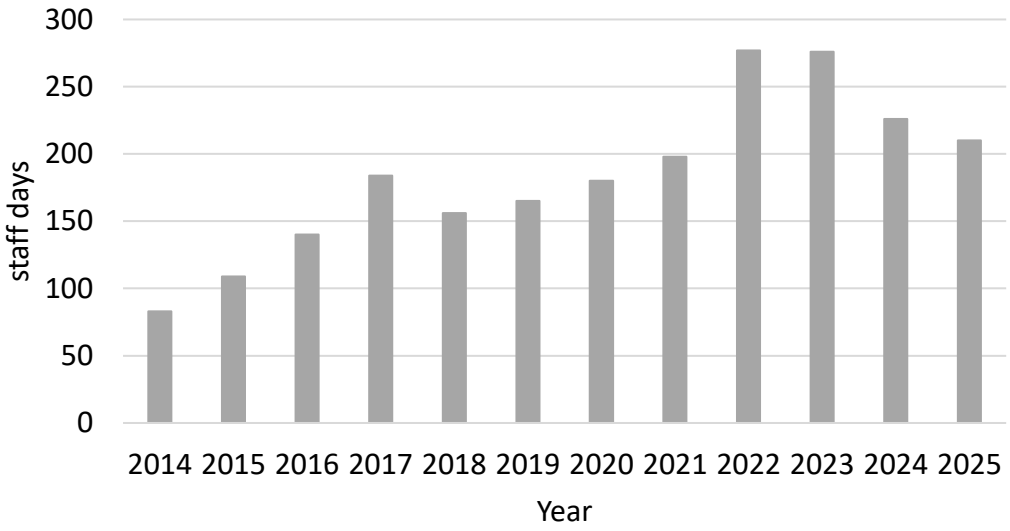
1.7. Planned work for dredging on the River Bure between Wroxham and Salhouse has had to be postponed to the 2026/27 financial year. For this work looking to re-use the dredged sediment in an erosion protection project, the planning consent requirements,

particularly around Biodiversity Net Gain, needs more work to before this project can go ahead. Dredging is postponed until April 2026 at the earliest.

2. Water plant management

2.1. During the 2025 season, water plant cutting was carried out in the marked channels of the Upper Thurne; the River Bure upstream of Wroxham; the Waveney between Beccles and Geldeston, the River Ant around Wayford Bridge and Dilham; Thorpe River Green and in the channels of Rockland and Bargate Broad on the River Yare; and the River Wensum upstream of Trowse.

2.2. For the 2025 season 210 cutting days were spent in these areas, which is a slight decrease from the peak of cutting intensity experienced in 2022 and 2023. Eight other days were also spent on training additional operators and some repair tasks completed by Operations Technicians.



2.3. Figure 1. Number of days spent on water plant cutting each year

3. Riverside Tree Management

3.1. The areas for management over this winter (2025/26, Year 4) have been drawn from the 5-year plan (2022/23 to 2026/27). Please see the maps showing riverside tree management areas maps for year 4 (2025/26). Key areas for this winter are on the Yare (opposite Brundall Gardens – to be completed using the tree shears); Waveney (just upstream of Beccles); and on the Bure (opposite Horning village).

3.2. Winter 2026/27 is the final year of the current consented programme. During 2026 the Ecology & Design team will carry out a review of the prioritisation process, refresh of the information on boat traffic and sailing use for stretches, identification of new areas in need of management and preparation for re-submission of the next five-year programme to Natural England.

4. Maintaining safe public mooring facilities

4.1. During November, the team completed a public questionnaire on the proposed transition from pre-paid electricity cards to an app-based payment system at 24-hour moorings.

4.2. The 443 responses from boat owners, holidaymakers and visitors have provided valuable feedback that guided the tender process to procure the most effective and inclusive metering and payment solution. Funding for the upgrade of the electric charge points at 24-hour moorings has come from a one-off capital allocation from DEFRA, in addition to the National Park grant.

4.3. Whilst most responses were supportive or neutral on the proposal (66%), some queries and genuine concerns were raised. These included poor mobile phone signal and connectivity to the meters was raised, which we have included as a key piece of evidence for the tenderers to provide, to demonstrate the robustness of their proposed solution. Concerns over digital security has been incorporated by requiring the most up to date and on-going compliance with government standards for online security. Inclusivity was another key theme, with respondents emphasising the need to ensure that older users and those with accessibility issues are not excluded. The Authority will require the successful supplier to provide step-by-step guides and comply with government standards for app usability.

4.4. This type of payment system has been in operation across the whole of the Canal & Rivers Trust network for many years, and we have sought advice from staff at the Trust. For users key benefits are the convenience and 24-hour access of app-based payments, and the ability to carry credit between different charge pillars and sites. For the Authority the benefits will be the instant online monitoring of the system, quicker fault identification and rectification, and the reduced staff time in managing the plastic cards (which require collection, washing and reloading before each use).

5. Channel Markers

5.1. Natural England assent for the Authority's Breydon Water channel management plan expires in April 2027. This plan includes all aspects of sediment management and channel marking activities. Revising and refreshing this management plan is in the Ecology & Design Team work programme for spring 2026 onwards. The location and management of moorings is not included in this review.

5.2. Following the completion of the channel marker replacement through Breydon Water, the scope of the next 10-year plan will be expanded to include the channel marking within the lower reaches of Bure, Yare and Waveney. This will ensure consistency of the channel marking adopted by the Authority and regularise aids to navigation in the most challenging tidal areas of the Broads.

5.3. More detailed consultation with the Navigation Committee will follow in 2026 on key decisions around channel marking protocols to be implemented in this area (see

sections *5.5 Management of Channel Markers and Aids to Navigation (ATON)* and *5.6 Marking Hazards* of the Authority's Safety Management System). The Environment Agency marker posts at the base of the concrete revetment bank protection on the Bure Loop, and the posts marking previous flood bank roll back areas on the lower Yare are within the scope of this review. Working in conjunction with the Agency, options for their future use include leaving them as they are, repaint, remove entirely, or moving their position. An assessment will be made and options presented to the Navigation Committee members for discussion.

5.4. The team are currently also exploring the potential to co-develop a joint Maintenance Dredging Protocol with Peel Ports, including the Port area, Breydon Water and the lower reaches of the tidal Bure, Yare and Waveney. This would enable efficiencies for both parties in licensing, monitoring, and sediment reuse opportunities.

Author: Dan Hoare and Sue Stephenson

Date of report: 06 January 2025

Broads Plan strategic objectives: C1, C2, C3, C4

Background Papers: Integrated Access Strategy; Port Marine Safety Code Safety Management System;

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

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

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

Project title **Dredge site and sediment re-use location**	**Active Broads 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
Postwick Marshes re-use site – started in 2024/25, completed in 2025/26					
River Yare Postwick Viaduct to Trowse Swing Bridge	10/9	6,480	4,630	£74,880	£57,760
Postwick Marshes re-use site - complete					
River Yare Hardley Dyke	-	-	170	-	-
River Thurne Hickling channel Martham & Somerton Boat Dykes Somerton to Candle Dyke	 0/8 0/4 0/10	 6,000 1,300 6,200	 0 0 0	 £175,420	 £5,110
~~*Hickling channel (Chara Bay re-use site) – October to November*~~ *(postponed)* *Martham & Somerton Boat Dykes (sidecast) – January* *Somerton to Candle Dyke (Chara Bay re-use site) – December to February*					
River Bure Wroxham Broad	~~0/5~~	~~3,000~~	0	£33,940	£3,030
~~*Wroxham Island*~~ *– postponed until April 2026*					
River Bure Lower reaches	0/4	5,000	0	£35,270	£1,010
Cutter suction head dredging on ebb tide – January to February					
River Bure Mid-Bure	-	-	-	£3,000	0
Lagoon preparation costs					
Site restoration	**-**	**-**	**-**	**-**	£21,850

Project title Dredge site and sediment re-use location	Active Broads Authority dredging weeks completed/ planned	Planned volume removed m^3	Actual volume removed m^3	Planned annual project cost[1]	Actual project cost
Future site preparation Survey, mitigation & set-up	-	-	-	-	£3,020
Dredging support activities	-	-	-	-	£46,000
Total	**21/45**	**27,380**	**6,600**	**£378,770**	**£192,510**

Appendix 2 – Operational staff time spent on all work types 2025/26 (update to end November 2025)

Work type	Planned - **Days**	Planned - **% of annual total days**	Actual - **Days**	Actual - % completed
Navigation (60%)	**2,664**	**60**	**1,431**	**32**
Italics are proportion within Navigation				
Dredging	*1068*	*40*	*630*	*24*
Mooring maintenance & repairs	*687*	*26*	*420*	*16*
Riverside tree management	*50*	*2*	*12*	*-*
Water plant cutting	*225*	*8*	*218*	*8*
Other navigation works[1]	*184*	*7*	*151*	*6*
Corporate allocation [2]	*450*	*17*	*397*	*15*
Recreation (10%) [3]	**444**	**10**	**232**	**5**
Conservation (30%) [4]	**1,332**	**30**	**859**	**19**
Total	**4,440**	**100**	**2,131**	**48**

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