

# Navigation Committee

08 June 2023

Agenda item number 9

## Construction, Maintenance & Ecology work programme progress update

Report by Head of Construction, Maintenance & Ecology, and Ecology & Design Supervisor

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### Purpose

To give an update on the Broads 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. Members are asked to give their preference in response to the question posed in section 1.3.

### 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. Maintaining water depths for navigation

- 1.1. The detailed breakdown in Appendix 1 gives progress and volumes for the dredging programme for the whole of 2022/23 (April 2022 to end March 2023). A total of 41,870 m<sup>3</sup> of dredged sediment was removed from the prioritised sites. This figure represents 141% of the programmed target of 29,750 m<sup>3</sup> for the year. The additional sediment volume dredged has largely been due to a significant change in the work programme which saw a team remain at Oulton Broad instead of starting a new project on the Upper Bure. Since the previous report, dredging on the River Ant upstream of Barton Broad has continued, as has the work at Oulton Broad.
- 1.2. Of the detail on each project in Appendix 1 the information on actual work achieved is the highly accurate. The process of capturing actual revenue budget expenditure, staff time spent, plant and equipment usage is robust and regularly updated. What has proved to be more difficult in recent years is setting a dredging programme at the start of each year, which then remains as planned and happens as expected. One of the challenges for the team who plan these works is getting far enough ahead in terms of landowner agreements, planning permission, assent from Natural England, Environmental Permits etc. Where variations to the draft plan then occur within the year, this shifts from the baseline originally stated, so all tracking of actual work is then against an out-of-date baseline. This then causes issues in terms of interpretation of Appendix 1 and the requirement for lots of commentary on why project delivery has had to change.
- 1.3. Members' views are sought on the format and content of the regular Appendix 1. Should this remain unchanged with commentary provided on variations to both project baselines and actual delivery? The alternative proposal is to remove the planned cost column, as this is not particularly instructive over the true cost of the work, especially when the scope of works is often not fully set or complete.
- 1.4. Appendix 2 shows the final proportions of operations technicians' time spent on navigation management activities for the whole of 2022/23. The total number of days spent on navigation tasks was significantly impacted by staff sickness in 2022/23. This led to a reduced number of days able to be spent overall. When looking at the staff days worked in percentage terms (final column of Appendix 2) the dredging tasks ended up with a slightly greater proportion of staff time being dedicated to them. Other work areas that had less time spent on them were mooring maintenance and other navigation maintenance tasks. The other work area with significant additional time spent on it was water plant cutting. Water plant growth was vigorous and, in more areas, than previously experienced. As such, this reactive work was a priority to maintain access in the public navigation.
- 1.5. The forward dredging programme for 2023/24 is shown in Appendix 3. Of particular note is the deferred project from 2022/23 for dredging in the Upper Bure, extending from Coltishall Lock down to Hoveton Viaduct. An application for planning consent has been submitted for construction of a temporary lagoon to dewater the sediment. A

date for decision at Planning Committee is awaited. Other major projects are the final months of dredging to complete the Peto's Marsh project by the end of July, using the dredged material from Oulton Broad. The dredging on the River Ant also continues, targeting shoals between Barton Broad and Wayford Bridge. Some dredging will also take place at the downstream end of Stalham Dyke.

## 2. Maintaining safe public mooring facilities

- 2.1. The installation of replacement timber quay heading and horizontal barge boards by contractors at Horning Marshes 24-hour mooring is nearly completed. The 137 m section is on track to be re-opened for public use slightly ahead of the end date published in the Boating News webpage [Temporary closure Horning Marshes 24hr mooring due to Maintenance works \(broads-authority.gov.uk\)](https://www.broads-authority.gov.uk/news/2023/06/08/temporary-closure-horning-marshes-24hr-mooring-due-to-maintenance-works).
- 2.2. The next project in the plan for timber refurbishment is a 30 m section of Commissioners Cut 24 hour mooring on the River Yare. This will be carried out by contractors in July.

## 3. Our resources

- 3.1. The final items to be delivered from the capital spending plan from the additional Defra grant to support the management of SSSIs and species recovery in the Broads was a new motorised barge. This 15 m long vessel will act a support boat, capable of transporting fuel, materials or waste products, as well as containing site welfare facilities during projects.

## 4. Water plant management

- 4.1. The background on this topic, and the current challenges, are covered in the report on water plant management, agenda item 8, [Navigation Committee 8 June 2023 \(www.broads-authority.gov.uk\)](https://www.broads-authority.gov.uk/news/2023/06/08/navigation-committee-8-june-2023).
- 4.2. As an update on this season's water plant management activities, the first round of cutting has been completed already for all of the planned areas of the northern rivers. No issues have yet (as of the date of writing this report) been raised for any of the areas in the southern rivers.
- 4.3. The initial hydroacoustic survey of Hickling Broad, which is a requirement for assessing whether cutting can happen in the marked channel has unsurprisingly shown there are lots of plants. Therefore, from late May, cutting is permitted through until September. The survey showed that 83% of the bed of the broad was covered with water plants. This is 15% more coverage than the same time in 2022. The plant growth within the marked channel has also increased this season, with waste capacity at the established disposal points being nearly reached before all the cutting has been achieved. Additional disposal points within the site are being explored, as well as waste removal to composting facilities, which requires additional budget and staff time considerations.

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Background papers: water plant management, agenda item 12, [Navigation Committee 8 June 2023 \(www.broads-authority.gov.uk\)](#)

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

Appendix 1 – Final annual dredging figures 2022-23 (April 2022 to end March 2023)

Appendix 2 – Final percentage of operational staff time spent on navigation work types (year April 2022 – March 2023)

Appendix 3 – Annual dredging plan 2023-24

## Appendix 1 – Final annual dredging figures 2022-23 (April 2022 to end March 2023)

<b>Project title Dredge site and sediment re-use location</b>	<b>Active Broads Authority dredging weeks completed/ planned</b>	<b>Planned volume removed m<sup>3</sup></b>	<b>Actual volume removed m<sup>3</sup></b>	<b>Planned annual project cost <sup>1</sup></b>	<b>Actual project cost</b>
River Ant Sutton Broad to u/s Hunsett Mill (May-Jul 2022) River Ant - Wayford to Barton (Feb-Mar 2023)	22/20	12,000	10,210	120,090	110,660
<i>Phase 1 – 6,830 m<sup>3</sup> dredged. Early completion in order to install marker posts in Barton Broad. Remainder to be picked up in 2023/24 Phase 2 – early commencement (Feb 2023) whilst river traffic low. 3,380 m<sup>3</sup> dredged</i>					
<b>River Waveney</b> Oulton Broad to Peto's Marsh (May '22 – July '23)	30/13	10,000	19,520	50,780	202,260
<i>ONGOING – initial planned cost was set too low and other project developments have occurred, hence disproportional jump in actual cost</i>					
<b>River Bure</b> Malthouse Broad to Ant mouth setbacks (Oct-Feb)	15/9	6,750	9,830	98,390	61,420
<i>COMPLETE – Replacement project for the deferred Upper Bure (Belaugh to Wroxham) dredging</i>					
<b>River Bure</b> Plough dredging Lower Bure (Mar)	Contractor	1,000	2,000	5,000	6,000
<i>COMPLETE</i>					

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

<b>Project title Dredge site and sediment re-use location</b>	<b>Active Broads Authority dredging weeks completed/ planned</b>	<b>Planned volume removed m<sup>3</sup></b>	<b>Actual volume removed m<sup>3</sup></b>	<b>Planned annual project cost <sup>1</sup></b>	<b>Actual project cost</b>
<b>River Yare</b>	2/0	0	310		
<i>COMPLETE - Opportunistic removal of sediment from the bar at the entrance to Hardley Dyke and Haddiscoe Cut</i>					
<b>Site Restoration</b> Beccles, Raveningham, Hardley Flood	-	-	-	13,020	17,810
<b>Future site preparation</b> Survey, mitigation & set-up	-	-	-	9,960	7,290
<b>Dredging support activities</b> Maintenance of ancillary dredging kit, etc	-	-	-	-	29,610
<b>Total</b>	<b>69/42</b>	<b>29,750</b>	<b>41,870</b>	<b>297,240</b>	<b>435,050</b>

## Appendix 2 – Final percentage of operational staff time spent on navigation work types (year April 2022 – March 2023)

Navigation work type	Staff days planned – Days	Staff days planned - % of annual total	Staff days worked – Days	Staff days worked - % of annual total
Dredging	1800	60%	1678	64.2%
Mooring maintenance & repairs	660	22%	408	15.6%
Riverside tree management	85	3%	68	2.6%
Water plant cutting	190	6%	277	10.6%
Other navigation works	250	9%	184	7%
<b>Total</b>	<b>2985</b>	<b>100</b>	<b>2615</b>	<b>100</b>

## Appendix 3 – Annual dredging plan 2023-24

<b>Project title</b>	<b>Active Broads Authority dredging weeks completed/planned</b>	<b>Planned volume removal m<sup>3</sup></b>	<b>Planned annual project cost<sup>2</sup></b>
<b>River Waveney</b> Dredging at Oulton Broad to Peto's Marsh (April-July)	16	7,600	£98,430
<b>River Ant</b> Dredging between Wayford Bridge & Barton Broad and a section of Stalham Dyke (April-July)	17	12,230	£115,740
<b>River Bure</b> Dredging between Coltishall & Hoveton Viaduct to lagoon (Sept-March)	30	13,630	£176,510
<b>River Yare</b> Dredging at Haddiscoe Cut to setback near Reedham (Oct-Feb)	13	6,590	£80,630
<b>Total</b>	<b>0/81</b>	<b>37,550</b>	<b>471,310</b>