

Navigation Committee

05 September 2024

Agenda item number 8

Construction, Maintenance and Ecology work programme progress update

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

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.

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 2024/25 (April 2024 to end July 2024). A total of 12,800 m³ of dredged sediment was removed from the prioritised sites. This figure represents 35% of the programmed target of 36,630 m³ for the year.
- 1.2. Active dredging projects this summer includes in the Rockland Broad area - [Navigation Closure & Restrictions due to dredging works at River Yare, Norwich](#), and the continuation of the work in the Upper Bure, between Wroxham and Coltishall - [Update - Navigation restrictions due to dredging works on](#). Since the start of the Upper Bure project in January 2024, the lagoon where the sediment is being treated now contains over 13,400 cubic metres in volume (as dredged from the river). This material is dewatering well and has already shrunk considerably in volume. The Construction Team has suffered from some breakdowns with key pieces of equipment so far on this project. The concrete pump and the excavator used for dredging have both had parts failures, which has added to the time required on site to complete the work. The project is set to continue for the remainder of this calendar year. The next phase of work involves six weeks working downstream towards Wroxham Bridge. Then attention turns to the narrower section of the river upstream of Coltishall. After the planned dredging is completed, the dried sediment will be eventually spread on the adjacent field for agricultural benefit.
- 1.3. Phase 1 of the dredging in the River Yare area (Fleet Dyke and some of the marked channel through Rockland Broad) has now been completed. All dredged sediment has been placed behind a floodbank along the Short Dyke as a stockpile for future Environment Agency flood defence work. This re-use area is now full and the sediment is now starting to dry out. Phase 2 involves completing the dredging in the marked channel of Rockland Broad and then the approach channels to Bargate Broad. Buoys will be placed along the channel dredged to 1.5 m below mean low water level, on the southern edge of Bargate Broad. This sediment is destined for the Environment Agency's flood defence maintenance work at Postwick Marshes further upstream on the River Yare. As the placement of the dredged material is going to be over the floodbank, the project requires the concrete pump to do this. Dredging on the River Yare will resume in the new year once the concrete pump is finished on the Upper Bure.
- 1.4. The current contract for hydrographic surveys to inform the dredging programme has come to an end this year. An open tender will be released in September to refresh this contract. This gives an opportunity to embrace new technological advances and drive value for money for this vital information gathering phase of the Broads sediment management process.

2. Maintaining safe public mooring facilities

- 2.1. Current active work includes the refurbishment of the piled edge and quay heading at Repps Bank 24 hour mooring at Potter Heigham. This works has been pushed into the summer months due to the unprecedented and continued high water levels in the River Thurne area.
- 2.2. Repiling at Womack Island 24-hour mooring has been completed. Repairs to the damaged quay heading at Ranworth 24-hour mooring has also been completed.
- 2.3. For the more detailed reports on the minor mooring maintenance work completed, these are included in the Chief Executive's regular public [Broads Briefings](#).

3. Water Plant Management

- 3.1. All areas of known water plant growth where this has been observed to cause a significant impediment to vessels in the public navigation has been managed well this season. The three water plant harvesters have been active in rotation. The overall abundance of growth does not seem to have been as vigorous as the previous two years. This has allowed one of the harvester vessels to be used on Rockland Broad to collect lily rhizomes that have floated free during the dredging operation. Over 20 tonnes of plant material have been gathered and incorporated in the dredged sediment re-use site.

4. Riverside Tree Management

- 4.1. Work over the coming autumn and winter (2024/25) will be the third year of our agreed five year programme (2022/23 to 2026/27) [Riverside tree and scrub management](#). Prioritised sections for management in 2024/25 are subject to final operational work planning with landowner agreements for work on their land being confirmed. The plan will be reported at the next meeting.

5. Our resources

- 5.1. From the additional Defra grant received in 2024/25 the priority capital items agreed for purchase includes: -
 - A new concrete pump system for facilitating dredging operations (awaiting specification of a new system and final pricing from our existing supplier)
 - Six replacement 4x4 vehicles for use across the operational teams (three delivered with the remainder due by the end of September 2024)
 - Excavator dipper arm extension for our 14 tonne JCB excavator (on order)
 - Slotted weed bucket for dyke clearance (on order)
 - Steel welfare hut (delivered and in use)

6. Channel Marking

6.1. With the replacement of all the channel marker posts in Breydon Water completed, the next priority is the review of marker posts where they occur in the lower tidal rivers (Yare, Waveney and Bure). All these assets are recorded in the Authority's GIS mapping system. The scope of this review to be completed by the end of December 2024 will include:

- the purpose of the marker (Trinity House marks, hazard marker, channel marker, other posts)
- is a marker still needed at that location
- is the marker in the correct position
- other maintenance requirements

6.2 The outcomes of this review will be shared with stakeholders with any agreed amendments to the current channel marking policy updated into the [Waterways Management Strategy](#).

Author: Dan Hoare & Sue Stephenson

Date of report: 15 August 2024

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

Appendix 1 – Annual dredging progress 2025/25 (April 2024 to end July 2024)

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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 Bure (continuation from 2023/24) Juby's Farm to Hoveton Viaduct	18/27	17,900	8,530	£190,710	£94,000
<i>Lagoon re-use site</i>					
<i>NB: Planned volume includes Bridge Broad (2,870m³) which is no longer part of the work programme</i>					
River Yare Rockland Broad (channels & dykes)	7/26	13,500	4,270	£190,020	£43,840
<i>Rockland Short Dyke & Postwick Marshes re-use sites & Postwick Tip</i>					
River Ant Stalham Dyke	0/3	830	0	£37,140	0
<i>Hunsett Mill re-use site; work planned to start December 2024</i>					
River Yare Bargate Broad	0/4	2,400	0	£45,150	£70
<i>Postwick Marshes re-use & Postwick Tip</i>					
River Thurne Catfield Dyke	0/4	2,000	0	£27,350	£170
<i>Deferred to 2025/26 due to delays in completing the Upper Bure project</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	-	-	-	-	
Future site preparation Survey, mitigation & set-up	-	-	-	-	£3,640
Dredging support activities	-	-	-	-	£3,790
Total	25/64	36,630	12,800	490,370	145,510