

# Navigation Committee

14 January 2021

Agenda item number 8

## Construction, Maintenance and Ecology work programme - progress update

Report by Head of Construction, Maintenance and Ecology

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### Purpose

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

### Broads Plan context

Construction, Maintenance and Ecology activities contribute to multiple objectives, in particular to Aspirations 3, 4 and 6 to manage sediment sustainably, maintain a safe open navigation, and maintain the access network and visitor facilities.

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## Contents

1.	Maintaining water depths for navigation	1
2.	Maintaining safe public mooring facilities	2
3.	Our resources	2
4.	Managing water plants	3
5.	Other navigation works	3
	Appendix 1 - Dredging progress	5

### 1. Maintaining water depths for navigation

- 1.1. The detailed breakdown in Appendix 1 gives the volumes for the annual dredging programme to the end of November 2020. A total of 31,530 m<sup>3</sup> of dredged sediment has been removed from the prioritised sites. This figure represents 76% of the programmed target of 41,400 m<sup>3</sup> for 2020/21.

- 1.2. The Upper Thurne dredging programme for this winter is proceeding to plan, with the first phase almost complete at Horsey Mere. Dredging on the Mere started in early October and an estimated 5000 m<sup>3</sup> should be removed by Christmas, before we move to Hickling Broad. The final phase of dredging will be in March on the River Thurne between Candle Dyke and Martham Ferry. All the sediment removed will be used in the reedbed creation as part of the EU-funded CANAPE project. On the River Yare, dredging has been carried out at both ends of Haddiscoe Cut, with sediment taken to a flood bank setback area near Raveningham.
- 1.3. Other dredging work planned in early January, but not connected with the CANAPE project, will see the second phase of Waxham Cut completed, with a further 3000 m<sup>3</sup> of sediment dredged from its northern section between Brograve Mill and Bridge Farm. A closure of the navigation will be in place from 4 January to 5 February 2021 - see [https://www.broads-authority.gov.uk/data/assets/pdf\\_file/0025/364390/NTM-12-2020-website.pdf](https://www.broads-authority.gov.uk/data/assets/pdf_file/0025/364390/NTM-12-2020-website.pdf)

## 2. Maintaining safe public mooring facilities

- 2.1. 15 electric points were damaged over the busy summer season and needed electrical repairs to return them to full use. Three new pillars installed at Acle Bridge 24-hour mooring are now operational. Hoveton Viaduct 24-hour mooring has recently had the surfacing improved, with a wider and higher path installed along its whole length. In addition to the new boardwalk from Hoveton Riverside Park, this is a popular section of riverside to walk along.
- 2.2. Contractors will refurbish 87 metres of quay heading at Hardley Cross 24-hour mooring from December to January. How Hill 24-hour mooring will have three phases of refurbishment work over the next three years. The first phase will start in January 2021 with the timber waling and capping replaced on the upstream 100 metres. To avoid disruption at this popular location, subsequent 100 metre phases will follow over the winters of 2021/22 and 2022/23.
- 2.3. A public tender is open for replacement of the 300 meters of timberwork on the St Benet's 24-hour mooring - see [Invitations to tender \(broads-authority.gov.uk\)](https://www.broads-authority.gov.uk/invitations-to-tender).

## 3. Our resources

- 3.1. Five additional pontoon sections (NATO floats) have been purchased and delivered this month, reducing our equipment hire needs. We already had seven pontoons, and the additional five will allow us to make a pontoon large enough to carry out a whole range of navigational maintenance activities including riverside tree management with an excavator and our tree shears, 24-hour mooring refurbishment, transporting equipment, piling and other works.

## 4. Managing water plants

4.1. The final report from the three-year monitoring of stonewort cutting in Hickling Broad has been completed and shared with the Upper Thurne Working Group as local stakeholders (interested Navigation Committee members can request a copy of the full report). Conclusions from the report are that:

- Cutting had a negative effect on the height and cover of stoneworts for up to two seasons after the cutting.
- Within the stonewort bed, cutting inadvertently affected a greater area than just the cut treatment plots, with negative impacts on plant height and cover observed in the adjacent non-cut and control plots.
- Cutting stoneworts allowed other vascular plants to populate the cut areas, depressing the abundance and range of stonewort species present.

4.2. The steering group overseeing this trial (Broads Authority, Environment Agency, Natural England and Norfolk Wildlife Trust) are seeking to use this latest evidence to guide the Authority's management of navigation access within the broad. The future options that can be sustainably managed by the Authority in pursuit of all of its statutory functions are:

- Seasonal cutting within the marked channels from the beginning of June to the end of August
- Annual survey of plant growth throughout the broad and subsequent production of an early season map showing distribution of dense and taller submerged plant beds, to assist the setting of sailing courses
- Routine ranger patrols to check on the condition and safety of the marked channels

4.3. Following consultation with the Upper Thurne Working Group, actions to support waterway safety will be implemented.

## 5. Other navigation works

5.1. We had hoped to bring an update on the development of the Waterways Management Strategy to this meeting, but this has been deferred until April. One positive element to report is that the Authority's GIS Officer has completed the rebuild and refresh of the computer model used to calculate sediment dredging requirements. This has incorporated the updated water level data reported at the last meeting, and has removed the need for surveying and reporting of areas not within the navigable area. This is encouraging, as we can save staff time and develop far simpler monitoring, processing and reporting routines each year.

5.2. The focus this winter of the annual round of hydrographic surveys of water depth is along the River Waveney (Beccles to Breydon), the mid Bure (Ant Mouth to Acle) and the upper Bure (Horstead to Wroxham). This information will be checked against the

Waterways Specification depths for these stretches and we will report compliance in 2021.

- 5.3. A public tender is open for replacement of some of the channel markers through Breydon Water - see [Invitations to tender \(broads-authority.gov.uk\)](https://www.broads-authority.gov.uk).
- 5.4. In Hickling Broad, the start of the marked channel towards Catfield Dyke is now marked with one yellow post (North) and one yellow buoy (South). Vessels wishing to navigate to Catfield Dyke must turn between the yellow markers to remain in the maintained channel. The leading marks have been removed. [https://www.broads-authority.gov.uk/\\_data/assets/pdf\\_file/0028/356437/NTM-11-website2.pdf](https://www.broads-authority.gov.uk/_data/assets/pdf_file/0028/356437/NTM-11-website2.pdf)

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[Broads Plan](#) strategic actions: 2.1, 2.3, 3.1, 3.2, 4.2, 6.1

Appendix 1 – Dredging progress

## Appendix 1 - Dredging progress

Project title	Active Broads Authority dredging weeks completed/ planned	Planned volume removed m <sup>3</sup>	Actual volume removed m <sup>3</sup>	Planned annual project cost <sup>1</sup>	Actual project cost
<b>River Bure - COMPLETED</b> South Walsham & Acle to Oby (Apr-May)	6/8	2,000	4,605	40,703	36,820
<b>River Waveney - COMPLETED</b> Oulton Broad to Peto's Marsh (May-Sept)	13/20	8,500	7,655	110,104	86,140
<b>River Yare - COMPLETED</b> Prioritised shoals between Trowse & Cantley (Jun-Sept)	16/15	6,400	8,570	114,507	94,430
<b>River Thurne</b> River Thurne sites & Catfield Dyke to Chara Bay (Oct-Feb) Plus 4 weeks for planting geotextile bags	8/19	8,000	3,760	150,664	43,460
<b>River Yare</b> Haddiscoe Cut to Raveningham (Nov-Feb)	8/20	8,500	6,940	106,990	43,460
<b>River Thurne, Waxham Cut</b> Sidecast (Jan-Feb)	0/7	6,000	0	26,862	1,030
<b>Lower Bure</b>	Contractor	2,000	0	10,000	0

<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</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>
Plough dredge (Mar)					
<b>Site restoration</b> Waxham Cut (Phase 1), Tyler's Cut	-	-	-	12,000	11,680
<b>Site preparation</b> Peto's Marsh, Carlton Marshes	-	-	-	16,000	7,840
<b>Total</b>	<b>51/89</b>	<b>41,400</b>	<b>31,530</b>	<b>587,830</b>	<b>324,860</b>