

Navigation Committee

11 June 2020

Agenda item number 8

Construction, Maintenance and Environment work programme progress update

Report by Head of Construction, Maintenance and Environment

Purpose

To update committee members on the Broads Authority's management activities to maintain the public navigation, develop mooring facilities for public use; and demonstration of the effective use of available resources.

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1. Maintaining water depths for navigation

- 1.1. The detailed breakdown in Appendix 1 gives the volumes for the annual dredging programme for the first month (April) of the 2020/2021 work planning year. A total of 2,930m³ of dredged sediment has been removed from the prioritised sites. This figure represents 7% of the programmed target of 41,400m³ for 2020/2021. Staff working on the dredging projects have been able to socially distance effectively and have continued to be active throughout the COVID-19 lockdown period.
- 1.2. So far in the 2020/2021 reporting year, dredging on the River Bure in April has been focussed on the entrance to South Walsham Broad from Fleet Dyke, and then to shoals on the main river between Oby and Acle. The set of machinery from the Bure will then travel round the River Yare to start work near Trowse. The second set of dredging

equipment has been serviced following its work over the winter at Hickling; then is destined for work on Oulton Broad. Dredging in Oulton, working from Oulton dyke towards Mutford Lock will continue for a planned 20 weeks, taking this seasons operation through until September.

- 1.3. Appendix 2 gives the summary of the dredging programme over the whole of the 2019/2020 reporting year. Overall a successful year was had, with the total dredged volume being within one large wherry load of the predicted target. The completion of Phase One of the three-year CANAPE project at Hickling Broad was an important milestone to reach. The planned volume of sediment to be placed in the lagoon area for the reedbed creation was exceeded. This will help next winter (2020/2021) as we now have reached 15,620m³ of the 19,000m³ requirement to complete the habitat creation.
- 1.4. Also in the Upper Thurne, Phase One of a two-year project to dredge the length of Waxham Cut was also completed. The sediment was successfully removed and placed along the back of the floodwall to provide some additional strength to this structure.
- 1.5. In terms of the reporting approach taken here, the contents of the Appendices have developed over many years of different Navigation Committee requests and queries. The one area that shows greatest variation between original plan and actually completed is the project costings. As highlighted in the footer of the Appendices, the project costs include staff time for all work elements (including pre-works ecological mitigation, site set-up, active dredging & site restoration); use of Authority owned plant; & budgetary expenditure (including equipment hire, survey costs, contractor costs, mitigation works, materials & consumables etc); within the reporting period. The variation between planned and actual costs is dependent upon many factors, which come into play through the year.
- 1.6. The revenue (cash) budgets requested each year have a sophisticated monthly monitoring process and significant variation from the forecast is rare. The majority of the variation in the actual project costs comes down to the number and duration of staff deployed on any one particular project. In 2019-2020 the cost of staff (including on-costs of daily transport, workwear, PPE, training etc) on the dredging programme accounted for roughly 63% of the total programme cost. Whereas at the start of a planning year, if cautious (high) predictions are made about number of staff or duration of work and the actual number to complete the work is lower, then the projects show a significantly lower actual cost. To ensure reporting of planned and actual is aligned more closely, some improved predictions can be used on the staff resource requirement and any variation that occurs can be tracked in these reports to Navigation Committee through the year.

2. Maintaining safe public mooring facilities

- 2.1. Through April COVID-19 restrictions have delayed some of the contractor work on the Authority's 24-hour moorings. The re-piling at Acle Bridge 24 hr mooring had a two-month delay but has now resumed. Similarly, the refurbishment of capping timbers at

Paddy's Lane 24 hr mooring was delayed due to material supply issues, but has since been completed.

- 2.2. Staff have worked to complete the replacement of timber capping at the downstream end of Somerleyton 24 hr mooring; installation of new signage at Horning Parish Staithe; replace the path at Cantley 24 hr mooring; remove a fallen tree blocking the River Waveney at Geldeston; replaced and made safe 100 metres of mooring grass path edge with additional topsoil and turf at Bramerton 24 hr mooring; plus, a huge number of smaller repairs and rectifications of reported defects at 24 hr mooring sites. This period of maintenance during lockdown has enabled the moorings to be opened immediately following the easing of some lockdown rules regarding recreational access.
- 2.3. Given the uncertainty over the financial impacts of COVID-19 on revenue budgets available for maintenance work, one identified project that is currently on hold is progress with the new 24 hr mooring at Belton Reach. This location replaces the old Burgh Castle 24 hr mooring. The Rivers Engineer is continuing with compiling the project plan and construction detail but we await further information before being able to confirm a date for starting work on the ground.

3. Our resources

- 3.1. In a similar manner to the Operations Technicians who have been active around the Broads during lockdown, the Plant & Equipment Team have been busy at the Dockyard progressing refits and repairs to a range of essential kit. Work completed includes replacement engine and repainting the tug Bantam; fitting out the new, as yet unnamed, welfare barge; stripping out and servicing the mud pump; replacing steel sections of a dumb lighter to be brought into active usage on work sites; and a range of routine servicing of trailers, power tools, mowers, chainsaws and brush-cutters.
- 3.2. Staff changes in the last period has seen some changes within the Operations Technicians. Glen Owen has retired and Nick Turner and Tim Sanderson have moved on to other employment. Two new starters, Neil Brewster and returning apprentice Jack Kean have both begun their induction period. Recruitment for one Operations Technician post has been put on hold until the financial position post COVID-19 becomes clearer.

4. Managing water plants

- 4.1. Water clarity throughout April was exceptional, so water plant growth has responded accordingly. The first cut of the year has happened at Somerton/Martham on the Thurne and upstream of Belaugh on the Bure. A return trip to Somerton is planned prior to visiting the River Ant. Cutting the southern rivers typically start later in June.
- 4.2. Like dredging the challenge for water plant cutting is often not the removal of material from the river but what to do with the arisings. The Environment Agency has granted permission for the Authority to offload cut plants on an extended section of their bank

near Martham. However, as the total volume of material removed from the River Thurne has also increased, this only just provides space for the material cut between Somerton 24 hour mooring and Martham Ferry. Where margins of the river edge can be left unmanaged this retains valuable habitat, particularly through the section upstream of Dungeons Corner. This stretch is home to some rare species that occur nowhere else in the Broads and the area is heavily protected for its conservation value. As ever the management challenge is about working to seek solutions that preserve all the rights and characteristics of those using the Broads water space.

- 4.3. To help visitors and regular users alike, articles explaining the water plant management work that gets carried out in the Broads have been published in this seasons Broadsheet (front page) https://www.broads-authority.gov.uk/_data/assets/pdf_file/0025/264751/Broad-Sheet-Feb-2020.pdf and the Broadcaster (pages 30-31) <https://edition.pagesuite.com/html5/reader/production/default.aspx?pubname=&edid=7b9d4321-8dee-4ce8-aa11-3c7fc1916c9f>.

5. Other navigation works

- 5.1. A project team, including the Waterways & Recreation Officer has been brought together to draft the contents of a Waterways Management Strategy and Action Plan. This document aims to review and update the 2007 Sediment Management Strategy, but embrace the new ways of working developed in the intervening 13 years. These include different ways of dredging and moving sediment; greater accuracy and coverage of hydrographic surveys and the other critical waterways maintenance activities of water plant cutting and riverside tree management. Through considering all the maintenance requirements of the “navigable envelope”, or river cross section, including the river margin and bankside environment, this heavily operationally focussed strategy and action plan aims to provide clarity on what the Authority aims to achieve through its waterway’s management activities. The strategy will not seek to duplicate or cross-over with the existing Biodiversity & Water Strategy, or the Integrated Access Strategy. The timeline for consultation with stakeholders in November 2020, coming for discussion at Navigation Committee in December 2020.

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[Broads Plan](#) objectives: 2.1; 2.3; 3.1; 3.2; 4.2; 6.1

Appendix 1 – Dredging progress 2020-2021 (April 2020 to end March 2021)

Appendix 2 – Dredging summary 2019-2020 (April 2019 to end March 2020)

Appendix 1 – Dredging progress 2020-2021 (April 2020 to end March 2021)

Project title	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 South Walsham & Acle to Oby (Apr - May)	3/8	2,000	2,930	40,703	18,890
River Waveney Oulton Broad to Peto's Marsh (May - Sep)	0/20	8,500	0	110,104	4,980
River Yare Prioritised shoals between Trowse & Cantley (Jun – Sep)	0/15	6,400	0	114,507	600
River Thurne - Waxham Cut Sidecast (Nov - Dec)	0/7	6,000	0	26,862	200
River Thurne River Thurne sites & Catfield Dyke to Chara bay (Oct-Feb) <i>Plus 4 weeks for planting geotextile bags</i>	0/19	8,000	0	150,664	4,230
River Yare Haddiscoe Cut to Raveningham (Nov-Feb)	0/20	8,500	0	106,990	0
Lower Bure Plough dredge (Mar)	Contractor	2,000	0	10,000	0
Site restoration Waxham Cut (Phase 1), Tyler's Cut, 6 Mile House	-	-	-	12,000	1,640
Site preparation Peto's Marsh, Carlton Marshes	-	-	-	16,000	200
Total	3/89	41,400	3,000	587,830	30,740

¹ 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.

Appendix 2 – Dredging summary 2019-2020 (April 2019 to end March 2020)

Project title	Active Broads Authority dredging weeks completed/planned	Planned volume removed m ³	Actual volume removed m ³	Planned annual project cost ²	Actual project cost
Hickling Broad a) Dredging of marked channel & habitat creation (Oct - Feb)	19/22	8,000	9,760	149,670	84,900
Tyler's Cut, Dilham a) Dilham Staithe and 600m downstream (Nov - Dec)	4/17	3,000	3,000	40,330	19,590
Mid-Bure a) South Walsham Fleet Dyke (Apr - May) b) Oby to Acle Bridge (Jun - Aug)	34/22	13,000	19,710	126,640	166,550
Oulton Broad Dredging in North Bay (Aug - Sep)	3/9	1,200	1,200	51,680	25,490
Waxham Cut Dredging & sidecast (Nov - Jan)	7/13	4,000	4,700	38,090	38,960
Waveney Beccles to Stanley Carrs (Apr - Jul)	10/16	8,000	5,570	102,550	82,530
Lower Bure Plough dredge (Mar)	Contractor	2,000	0	10,000	0
Site restoration Stokesby, Lower Bure & Postwick Tip	-	-	-	43,540	33,750
Site preparation Peto's Marsh, Carlton Marshes	-	-	-	15,860	15,600
Total	77/99	44,000	43,930	578,360	467,370

² 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.