

**Construction, Maintenance and Environment Work Programme
Progress Update**

Report by Head of Construction, Maintenance & Environment

Summary: This report sets out the progress made in the delivery of the 2017/18 Construction, Maintenance and Environment Section work programme to date. A selection of images illustrating the work sites and tasks will be presented during the meeting.

1 Construction Programme update

- 1.1 The progress of the Construction and Maintenance work programme is described in this report. The detailed breakdown in Appendix 1 shows that up to the end of January 2018, 46,920 m³ of dredged sediment has been removed from the prioritised sites. This represents 88% of the programmed target of 53,000 m³.
- 1.2 Dredging on the Lower Bure between Stokesby and Runham has been completed. Sediment has been placed on the reeded river edge, particularly along a stretch of bank opposite Stracey Mill. The reed rond habitat needs to be restored and the dredged material remains shaped to the front face of the floodbank. The dredging has moved further downstream the Bure where a new off-loading location has been set up near Herringby, utilising a concrete pump to place the sediment directly at the base of the floodbank. On this stretch of river, the floodbank is at too great a distance from the river edge to reach with excavators.
- 1.3 Site visits and habitat mitigation work are being undertaken to establish forward dredging disposal sites at Horning on the Bure (near Ant Mouth) and downstream of Beccles on the Waveney.
- 1.4 The marker post removal and dredging on the River Chet, along the section between Chet Mouth and the wherry staithe near Hardley Flood, has been completed. At Limekiln Dyke, the dredging is to restore the waterways specification depth between Gaye's Staithe and Neatishead Staithe has also been completed. The sediment accumulation at the turning circle at the end of the navigable dyke has also been dealt with, where bars had formed at the entrances to several private boat dykes.
- 1.5 At the time of preparing this report, a trial of some hydraulic tree shears is being planned for early February. The use of cutting shears attached to an excavator will allow tree growth up to about 15-20 cm diameter to be cleared

from overhanging river margins and the on edge of banks. The handling, processing and tidying of cut material is the continual challenge, so reducing the manual handling of this task in unstable site conditions on the water's edge will be of benefit to the work force.

- 1.6 Fen maintenance work has been carried out with the fen harvester at the Authority's land at Buttle Marsh. There are some small contract fen cutting jobs coming up on NWT sites at Hickling NNR and Upton Fen. If water levels decide to drop, then the fen harvester will also be active at Hulver Ground, Horning and the Authority's land at Geldeston. The machine is also helping prepare dredging sites by cutting the reedbeds before sediment is offloaded.

2 Maintenance Programme Update

- 2.1 Timber refurbishment at Coltishall Common 24 hour mooring has been completed. Work is currently ongoing at Hoveton St John to replace the timberwork on the quay near the Tourist Information Centre. Belaugh, Ranworth on the Bure and Commissioners Cut on the Yare are due in the next two months
- 2.2 Some new posts for speed signs at the northern end of Barton Broad have been installed. Riverside tree management has been carried out at priority sites on the Ant at Catfield and the Bure at Horning. Work remaining includes spots on the Yare at Bargate Broad and Bramerton. Structural inspections are being carried out by the team as part of the ongoing asset management process on the timber framed buildings, bridges, bird hides etc. Any findings that require attention during these inspections will be included in the 2018/19 work programme.
- 2.3 The Authority has been facilitating a timely resolution to Norfolk County Council's on-going issues with replacing the fendering installed under Ludham Bridge. The council lost their ability to sub-contract work in the required timescale, so the Authority stepped in to provide project and contract management assistance. Temporary fendering was installed last year through the bridge to repair damage sustained through the season. The repairs however reduced the already narrow bridge width even further, so the loss of only 6 inches width on either side was enough to prevent passage of the larger wherries, which regularly travel this section of river for events and charters. A sub-contractor has been engaged and all the work on site is planned to be completed by mid March.

3 Environment & Design Team update

- 3.1 Mudpumping in the marked channel of Hickling Broad has commenced. The contractor, Inland Dredging, was ready and had mobilised and set up within a week of the Authority receiving the Environmental Permit to store the pumped sediment. A Notice to Mariners has been issued for the period when the dyke leading to Hickling Staithe is to be dredged, as this will effectively close the navigation. With the help of Norfolk Wildlife Trust, Whispering Reeds, Hickling Parish Council, Hickling Parish Staithe trustees and the Pleasureboat Inn, the

private boat-owners moored in this area are all aware and arrangements have been made for temporary alternate moorings during the work. Environment Officers will be tracking dredging progress and carrying out water quality monitoring throughout, to ensure safe environmental working thresholds are maintained.

- 3.2 A contractor has been engaged to carry out the clearance of vegetation from dykes at the back of Churchill's bay in Hickling Broad. This removed material will be used to top-up the planting in the reedswamp restoration areas completed last year. This work will start during the last week of February.
- 3.3 Work has also started on site for the replacement of the Thorpe ranger billet at the Dockyard. Planning permission was granted on the 2nd Feb, with demolition of the old shed planned for 12th Feb. Piling engineers are engaged to finalise the design and install the appropriate foundations for the new steel framed, powder coated steel clad boatshed.

4 Plant and Equipment Team

- 4.1 Both weed harvesters (Megan and Harris) are under cover for their annual refits, which routinely involves replacing bearings, engine servicing and checking the hydraulic drive systems. Megan is complete all bar some painting and Harris requires a whole new conveyor belt system for moving the weed inside the vessel once it is cut. This will arrive in April.
- 4.2 The ranger launch ML Martin Broom has had its refit completed at the Dockyard and the ML Ant is now in the workshop for annual refit and servicing.

Background papers: Nil

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Broads Plan ref: 2.1; 2.3; 3.1; 3.2; 4.2; 6.1
Appendices: APPENDIX 1 – Dredging Progress 2017/18

APPENDIX 1

Dredging Progress 2017/18 (April 2017 to end January 2017)

Project Title	Project Element	Active BA dredging weeks Completed (to end Jan / Planned)	Volume Removed m ³		Annual project Cost ^a	Actual project cost (Apr-Jul)
			Planned	Actual	Planned	Actual
Haddiscoe Cut	Reedham End (Mar)	1 / 1	500	670	5,600	3,870
<i>Sediment into setback areas on the River Yare upstream of Reedham</i>						
Lower Bure	Phase 1. Stokesby to Three Mile House (Apr-Sep); Phase 2. Three Mile House to Marina Quay (Sep-Jan)	38/ 36	18,000	19,500	222,400	182,150
<i>Use of ronds again for dewatering and a second location using a concrete pump to move sediment to the folding behind the floodbank</i>						
Oulton Broad	Phase 1 - North Bay (Apr-Aug); Phase 2 - North Bay (Sep-Oct)	22 / 22	16,000	20,750	104,800	100,000
<i>Suffolk Wildlife Trust setback area and Authority's own sediment lagoon filled at Horseshoe Point</i>						
Bure Mouth	Use of plough dredging to clear shoals (Mar)	Contractor	2,000	-	15,000	0
<i>Subject to consent decision from Natural England for the submitted 10 year plan for navigation channel management in Breydon Water SSSI</i>						
Hickling Broad	Mudpumping marked channel in North Bay (Feb)	Contractor	6,000	-	69,300	32,567
<i>Use of sediment for arable benefit. Awaiting issue of the Environmental Permit from the Environment Agency. £30k from NPG.</i>						
Limekiln Dyke	Gaye's Staithe to Neatishead Staithe (Nov-Jan)	7 / 12	3,500	3500	33,300	13,159
<i>Sidecasting material to the bank clear of trees last year</i>						
River Chet	Shoals near Hardley Flood (Nov-Jan)	5 / 12	4,000	2500	22,300	13,734
<i>Sidecasting to provide additional material onto the weak/low sections of riverbank</i>						
Mid Bure	Thurne Mouth area (Mar)	0 / 4	3,000	-	28,400	2,496
<i>Priority shoals in Thurne Mouth area</i>						
Site restoration	Rockland, Acle, Hickling	-	-	-	21,190	41,786
<i>Restoration of dredge sites from work in 2016/17. Rockland Dyke restoration completed</i>						
TOTAL		73 / 87	53,000	46,920	522,290	389,762

^a –project costs includes 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.