

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

Report by Director of Operations

Summary: This report sets out the progress made in the delivery of the 2016/17 Construction, Maintenance and Environment Section work programme.

Section 4 details progress made towards the Hickling Enhancement Scheme and the CANAPE European Bid.

1 Construction Programme updates 2016/17

- 1.1 The progress of the Construction and Maintenance work programme is described in this report. As previously reported verbally to members, a further detailed breakdown shows that up to the end of January 2017, 34,230m³ of sediment has been removed from the Rivers and Broads, and the details of quantities and costs achieved so far are set out in *Appendix 1*. This represents 68% of the programmed target of at least 50,000m³.
- 1.2 The dredging and sediment re-used at Hickling Broad is continuing although the conditions during the end of January were challenging. Thick ice had formed over the broad, freezing the floats which carry the pipe from the concrete pump, making moving it within the bay difficult. Also the vessels, as they moved across the frozen broad were pushing large slabs of ice about, and these longitudinal slabs which could cause damage to other vessels, structures and the bank, so operations slowed to ensure care and caution was used. Luckily this cold spell was not prolonged and with the thaw came a return to the good quantities of sediment being pumped into Churchill's Bay. To date 1,420m³ of sediment has gone into Churchill's Bay, with another 500 – 600m³ needed to complete the filling of that enclosure. We are programmed to complete this stage of the Hickling Enhancement by the end of February.
- 1.3 Dredging at Rockland Dyke and into the mooring basin is continuing, with dredged material, which was being side cast onto the adjacent land, now travelling by wherry to Rockland Short Dyke where it is being offload onto the back of the floodwall to dry. Next year this material will be used by the landowner to crest raise the floodwall.
- 1.4 The Fen Excavator has been transported to Ludham Marshes Reserve where it is completing 10 days of contract work for Natural England to clear water course to better control water levels within the reserve

2 Maintenance Programme Update 2016/17

- 2.1 The Maintenance Team have been fully deployed since the last report, below are a few highlights of the projects and tasks undertaken:
- 2.2 River bank tree clearance works have been taking place at Bridge Broad. A 3m wide strip of tree and scrub has been cut back over 500m to improve navigational width and visibility.
- 2.3 In anticipation of a busy tourist season the Tourist Information Centres (TIC) have been made ready. At Hoveton the TIC has had a minor refurbishment, with renewed internal paintwork and repairs made to the entrance door. Whitlingham Barn toilets have been repainted and the leaky plumbing repaired. Toad Hole Cottage has had a full interior repaint, following a full investigation of the Pantry Ceiling, which was identified as having potential issues after the Property Consultants, Concertus inspection. The 'Shed' on Reedham Quay has had rotten timbers replaced and a new coat of paint and Ranworth TIC (a Broads Authority property leased to Norfolk Wildlife Trust) has had the external cladding repainted.
- 2.4 In preparation of the major repairs to Irstead Billet, due to start at the end of February, tree felling has been completed to allow access to the plant and equipment. The old access boardwalk has been removed as has the old piling and walkway adjacent to the billet, with all materials removed from site. The Maintenance Team are busy re-piling the area around the shed, prior to the supporting piles being 'over sleeved'.
- 2.5 Gelderstone Mooring is currently undergoing a major refurbishment. All timber mooring posts are being replaced, as is the waling, backrail and capping timbers. A small area has 'bowed' due to failing tie-rods and these have been exposed and repairs carried out. Once complete the surface will be refreshed.

3 Mutford Lock

- 3.1 Officers are continuing to negotiate with Sentinel over the operational costs of Mutford Lock. We met with Suffolk County Council to investigate the shared operating costs, with further information being requested from Sentinel, breaking down the time spent on operating the Lock and the Road Bridge. Members will be updated further as this situation progresses.
- 3.2 Currently one of the automatic barriers, part of the safe lifting mechanism of the road bridge, has been damaged. This means the bridge cannot be lifted. Suffolk County Council is investigating a manually operated traffic control system which will involve scheduled lifts until the repair is completed at the end of March.

4 CANAPE (Creating a New Approach to Peatland Ecosystems)

- 4.1 At the Full Authority meeting on 27 January, members fully supported the CANAPE, Interreg North Sea Region Programme 2014-2020 funding bid, and the application has now been submitted. This innovative project will see the Broads Authority partnering with Norway, Sweden, Denmark, The Netherlands, Germany and Belgium.

- 4.2 We will deliver pilots in 3 countries: The UK, Germany and The Netherlands. Each will have a specific focus to improve the resilience of lakes by enhancing the natural shoreline, stabilize sediments and build aquatic plant zones which reduce algae blooms, thus boosting the water recreation economy. The UK will test creating large-scale reed swamp from peaty silt harvested from the navigation area. This will benefit boating business and help sustain the tourism economy. The Netherlands will test the use of new reeds to fix the nutrients and filter the water and improve the resilience of the lake to create better recreational, economic and ecological value. Germany will contribute learning and gain experience from experienced lake management partners.
- 4.3 CANAPE will also deliver pilots on wider catchment engagement with Peatland Farmers and target groups. We will deliver pilots in 5 countries: UK, Germany, The Netherlands, Denmark and Belgium. Examples will include Belgium's work via a farmer cooperation enterprise to manage water and facilitate how "Champion farmers" work to encourage future farmers to take on similar measures. With a focus on increasing knowledge of how best to raise groundwater levels to benefit farming business and nature by storing water during rainfall events. UK farmers will be engaged around novel soil and water measures, to protect the peatland, such as testing tramline disruption equipment to minimise runoff on high risk fields, using farmers to report on performance. The Broadland Catchment Partnership will also help communicate the opportunities for business in peatland systems. In addition school children will learn about peat formation, uses and future.
- 4.4 The Broads Authority will be taking the Lead Partner role in this project and we expect to hear in June whether our application has been successful or not.

Background papers: Nil

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Appendices: APPENDIX 1 – Dredging Programme 2016/17

Dredging Progress 2016/17 (April 2016 to end January 2017)

APPENDIX 1

Project Title	Project Element	Active BA dredging weeks Completed (to end Oct / Planned)	Volume Removed m ³		Annual project Cost ^a	Actual project cost (Apr-Oct)
			Planned	Actual	Planned	Actual
Mid Bure	Horning Church to Ranworth Dyke (Apr-mid Jun)	11/10	5,000	5,820	57,480	62,390
<i>Completed setback areas at Horning Hall</i>						
Bure Mouth	Contractor (April)	-	500	500	3,700	3,730
<i>Contractor completed plough/agitation dredging to clear bar</i>						
Lower Waveney	Burgh Castle (Apr-May)	6/8	4,000	4,140	43,430	37,200
<i>Upstream and including Burgh Castle 24 hr moorings. Shoal at Burgh Flats not completed this year</i>						
Lower Yare	Seven Mile House to Berney Arms (June)	5/6	4,000	4,290	33,060	22,190
<i>Shoals planned for dredging were completed</i>						
Haddiscoe Cut	Haddiscoe and Reedham ends (End Jul–mid Nov)	13/16	14,000	5,390	94,790	90,950
<i>Completed the priority dredging at St Olaves & all along the island side of the Cut. Return to complete priority at the Reedham end is required</i>						
Yare - Whitlingham	Bends downstream of Whitlingham Broad (Aug-Oct)	9/12	5,000	6,200	61,100	16,760
<i>Completed the priority bends identified at Whitlingham. All material brought to Postwick Tip</i>						
Hickling	Marked channel north of Catfield channel (Nov-Jan)	7/15	6,000	2,890	129,250	91,050
<i>Restoration area at The Studio filled with 1,470 m³ sediment from staithe entrances. Churchill's Bay has received 1,420 m³ to end Jan.</i>						
Rockland Boat Dyke	Rockland and bar at Langley Dyke (Dec-Jan)	11/8	2,900	5,000	29,630	56,770
<i>Initial 3,700 m³ was brought to Postwick Tip. Remainder side cast or to floodbank folding. Langley Dyke entrance also to be dredged</i>						
Limekiln Dyke	Gayes Staithe to Neatishead Staithe (Feb-Mar)	-/8	3,600		18,960	0
<i>CANCELLED FOR 2016/17 – Replacement equipment for Grab 7 and old Linkflotes will not be available before April 2017</i>						
Lower Bure	Bure Loop (Feb-Mar)	-/6	5,000	0	34,940	430
<i>Start date in 2016/17 depends on final timing and progress of work at Hickling. Main works duration will be in 2017/18</i>						
TOTAL		62/95	46,400	34,230	506,340	381,470

^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.