

**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 2016/17 Construction, Maintenance and Environment Section work programme.

Also included is an update on the Hickling Enhancement Project (1.4) for member's information.

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 September 2016, 23,290m³ 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 48% of the programmed target of at least 50,000m³.
- 1.2 Dredging continues at Haddiscoe Cut, with offloading equipment moved from the true left bank, upstream of Reedham Ferry to the true right bank near Reedham Village. Dredged material is being deposited onto land owned by the Raveningham Estate.
- 1.3 The second dredging crew is operating on the River Yare at Whitlingham. This material is being transported downstream and placed in Postwick Tip.
- 1.4 The Hickling Enhancement project has started with Nico-span geo-textile material being spanned out and pinned using timber posts, to create the bay areas. These bays will be filled with dredged channel sediments once the required environmental parameters are met. The first area at 'Studio Bay' has been completed and the zone at 'Churchill Bay' is underway.
- 1.5 3,600m³ of dredging work scheduled to be completed this winter in Lime Kiln Dyke has had to be deferred as replacement equipment for Grab 7 and old Linkflotes will not be available before April 2017.
- 1.6 The Fen Harvester has just completed works, started earlier in the year, at Geldeston Marshes. From Geldeston it moved to Rockland to carry out wildlife mitigation, prior to the dredging work, programmed for Rockland Dyke starting in November.

2 Maintenance Programme Update 2015/16

- 2.1 The Maintenance Team have been fully deployed over the months since the last report, below are a few highlights of the projects and tasks undertaken:
- 2.2 Conservation tasks have started now the bird nesting season has finished with scrub clearance at Mill Marsh, Reedham Marsh and Hall Fen. Invasive species removal (Parrots Feather) has also taken place at Snipes Marsh.
- 2.3 Gauge Boards have been repaired at Thorpe and Mutford lock, speed signs have been replaced on the River Waveney and safety ladder repairs at Hardley Cross have all been carried out to ensure the safety elements on the network are well maintained.
- 2.4 The Weed Cutting programme is nearing completion as a drop in water temperature and reducing sunlight has seen a decline in the aquatic plant growth. Upper Bure received its second cut and a small scheme at Sluttons Dyke will be the last cut for this year.

3 Environment Team Programme Update 2015/16

- 3.1 As part of the Hickling Enhancement reed and mace from adjoining dykes will be removed and transplanted into sediments placed in Churchill Bay. These dykes are also home to the rare Crested Buckler Fern (*Dryopteris cristata*) so Environment Officers have surveyed, segregated and protected areas where this plant is growing, to ensure the species is not disturbed when we work in these areas.
- 3.2 The Tree Management Plan at How Hill has been reviewed and trees have been identified for felling and other arboreal works identified to maintain the woodland in a healthy and safe state.
- 3.3 In order to progress sediment removal, disposal sites within the broads need to have ecological surveys conducted to ensure species are protected and habits maintained. Therefore sites along the Bure and Waveney have been surveyed prior to works commencing and management plans and mitigation measures determined to achieve these requirements.
- 3.4 At this time of year the Ranger Service are also starting to carry out additional land management tasks within their designated areas. The Environment Officers work closely with the Rangers to advise and guide of best practice and other mitigation tasks to ensure works comply with our best practice and are in keeping with current legislation. Environment Officers have been attending local Ranger Team meetings to discuss the various Ranger Area Plans.
- 3.5 As the Waste Tip (permitted by the Environment Agency) at Postwick is actively receiving dredged material from the River Yare, we have to

implement a higher degree of monitoring, as per the Environment Permit. This means Environment Officers have to collect weekly ground water samples from various piezometers spread around the site. These samples are tested and analyzed to ensure leachate is not re-entering the river system.

4 Fitter Team

- 4.1 The existing, agricultural workshop building at Griffin Lane has been refurbished. The single skinned walls have been insulated (improved thermal properties reduced acoustic reverberations), electrical wiring & systems have and been upgraded to meet current standards and lighting has been improved. This upgrade is part of the regeneration of the Dockyard facility. The next phase will be to retrofit the old 'bomb trailer' to allow larger vessels and taller equipment to enter the workshop when being repaired or re-fitted.
- 4.2 The reoccurring fault with the Spirit of Breydon has been identified with one of the wiring looms having a loose pin connection This situation is being closely monitored.
- 4.3 Other works include, ignition system repairs to the Charles Collier, re-wiring of Grab 10, repairs to the hydraulic systems on the Berky Weed Cutter 'Megan' Diagnostic's to investigate electrical issues with electric drive on motor launch Martin Broom, and replacement wing mirrors being fitted to the dockyard telescopic handler.

Background papers: Nil

Author: Rob Rogers
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Appendices: APPENDIX 1 – Dredging Programme 2016/17

Dredging Progress 2016/17 (April to end September 2016)

APPENDIX 1

Project Title	Project Element	Active BA dredging weeks Completed (to end Sep / Planned)	Volume Removed m ³		Annual project Cost ^a	Actual project cost (Apr-Sep)
			Planned	Actual	Planned	Actual
Mid Bure	Horning Church to Ranworth Dyke (Apr-mid Jun)	11/10	5,000	5,820	57,480	61,900
<i>Completed setback areas at Horning Hall</i>						
Bure Mouth	Contractor (April)	-	500	500	3,700	3,700
<i>Contractor completed plough/agitation dredging to clear bar</i>						
Lower Waveney	Burgh Castle (Apr-May)	6/8	4,000	4,140	43,430	38,220
<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)	4/6	4,000	4,290	33,060	23,970
<i>Shoals planned for dredging were completed</i>						
Haddiscoe Cut	Haddiscoe and Reedham ends (End Jul–mid Nov)	9/16	14,000	3,400	94,790	67,050
<i>Started at the St Olaves end. Setback area near Reedham Ferry partially filled. Moved to setback on Raveningham side of river</i>						
Yare - Whitlingham	Bends downstream of Whitlingham Broad (Aug-Oct)	6/12	5,000	5,140	61,100	13,790
<i>Good progress in terms of dredging, but capacity at Postwick Tip has filled rapidly</i>						
Hickling	Marked channel north of Catfield channel (Nov-Jan)	-/15	6,000		129,250	22,030
<i>Planning permission gained. Installation of wooden post & Nicospan retaining walls has started</i>						
Rockland Boat Dyke	Rockland and bar at Langley Dyke (Dec-Jan)	-/8	2,900		29,630	0
<i>Landowner agreements gained in principle for sediment off-load. Final details to be agreed.</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		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		36/95	50,000	23,290	506,340	231,090

^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