

Construction and Maintenance Work Programme
Report by Head of Construction and Maintenance

Summary: This report sets out the progress made in the delivery of the 2012/13 Construction and Maintenance Section work programme to date and updates members on project delivery in 2013/14.

Recommendation: That the report be noted.

1 Construction and Maintenance Programme 2012/13 Final Outturn

- 1.1 The progress of the Construction and Maintenance work programme is described in this report. As agreed with members, a further detailed breakdown shows that up to the end of March 2013, 48,432m³ 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 97% of the programmed target of 50,000m³.
- 1.2 Since the last committee report of 18 April, the Salhouse Project, to re-create land lost to erosion and create a new reedbed, has been completed. The void created using geo-textiles and alder poles has been filled, taking over 11,000m³ of sediment from the middle Bure. The geo-textile bags have been planted with reed rhizome and additional reed seed has been spread within the fill area to help stimulate reed growth. Goose guard and 'special' spray has been added to deter the geese from eating the emerging reed shoots. This project has been shortlisted for a Waterways Renaissance Award, with the winner being announced on 23 May 2013.

2 Construction and Maintenance Programme 2013/14

- 2.1 The dredging programme for 2013/14 is shown in Appendix 2. Plant and equipment is currently being mobilised to Six Mile House on the River Bure where works are due to commence at the start of June.
- 2.2 The first phase of mud pumping work at Heigham Sound has been completed and the work to reinstate the soke dyke, on the marsh adjacent to Candle dyke, behind the original line, has also been completed. Maintaining the drainage of this marsh was an important part of the agreement with the land owners when agreeing the sediment deposition as was the timing of the completed works. With the new soke dyke being completed we have fulfilled the agreement and managed the removal and reinstatement of 10,000m³ of sediment from Heigham Sound.

- 2.3 Channel marking and removing dilapidated dolphin structures in the Lower Bure and Breydon has been progressing. Five channel markers on Breydon Water have been removed and replaced with Green Heart markers as part of our ongoing improvements to the area. The damaged dolphin opposite Yarmouth Yacht Station has been removed and a new channel marker added, the plant and equipment has now moved up to Marina Quay and is carrying out further channel marker work at this location.
- 2.4 At Thorpe on the River Yare, more wrecks have been removed, mainly in and around the upstream rail bridge at Thorpe Island. A total of four wrecks were lifted and transported back to Griffin Lane, where they were skipped away. This work has now removed the majority of navigational hazards in this area.

3 Maintenance Team

- 3.1 The Maintenance Team has continued to work to priorities set in the works programme and a selection of some of the navigation projects they have been involved with are described within this report.
- 3.2 Maintenance Crews have been assisting with the finishing details at the Griffin Lane Office/Workshop by installing a new waste water treatment unit and raised walkway into the new building. Due to the site being subject to occasional flooding and the need to maintain access, a raised timber walkway is the ideal way to ensure this. The works will be completed in time for the Public Open Day, planned for 29 June.
- 3.3 The 24 hour mooring at Commissioners Cut is undergoing a major refurbishment, with capping, waling, tie rods and footpath all being replaced.
- 3.4 Phase 2 of St Benet's access enhancement continues. Maintenance staff have prepared the footpath from the mooring, around the Mill and back towards the path constructed in phase one. The surfacing material, Breedon Gravel will be completed by mid-June. Materials and plant are all funded from the HLF grant received by the Norfolk Archaeological Trust, with the staff time being the Authority's in-kind contribution.

4 Environment and Design Team

- 4.1 The Rivers Engineer has been working on the specifications and procurement for new pontoon and dolphins for Breydon Water/Bure Mouth, developing the project plan with Environment Officers for habitat creation and sediment disposal in a setback area at Marsh Farm near Stokesby, using the sediment from the Lower Bure and finalising the 24 hour Mooring Structural Maintenance Report. This report looks at all of our 24 hour moorings, assesses their structural conditions and prioritises the ongoing programme of re-piling and refurbishment.

5 Dockyard Development

- 5.1 The Dockyard development has been completed with officers moving into the new facilities at the end of April. The building is being furnished with furniture from Ludham Fieldbase and supplemented with new furniture where items are needed. The Griffin Lane facility offers a good size office, meeting room, storage area and workshop, which will allow the mothballing of Ludham Fieldbase, which will be taking place between now and the end of June.

6 Fitter Projects

- 6.1 Work to certify the new Wherry, Iona, under the Boat Safety Scheme has been completed and the certification has been issued. The second hand weed cutter has been undergoing refurbishment and is now operation in the Upper Thurne. She didn't need a great deal of mechanical attention, just some essential maintenance as she hadn't been in active service for 6 month prior to our purchase. We will endeavour to operate both weed cutters to ensure we keep up with the potential aquatic weed growth.

7 Prisma

- 7.1 Officers attended the 5th Prisma Partnership meeting in Rotterdam at the end of May. Reports were presented on Salhouse Land creation and discussed the Project Major Modifications, required under European rules. A verbal update will be given during the Navigation Committee.

Background papers: Nil

Author: Rob Rogers
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Broads Plan ref: NA1.1

Appendices: APPENDIX 1 – Dredging progress 2012/13
APPENDIX 2 – Dredging Programme 2013/14

Dredging Progress April 2012 to end March 2013

APPENDIX 1

Project Title	Project Element	Active dredging duration (weeks) Actual Apr-Feb/ Planned	Volume Removed m ³		Actual project cost ¹ £	Actual project dredge cost 2012/13 ¹ (£ per m ³)	Planned annual project costs £
			Planned 2012/13	Actual 2012/13			
Heigham Sound	Navigation Channel	12/20	12,000	10,000	167,076	16.71	150,000
<i>Comments – Filling of soak dyke on EA land completed. Trial of mudpumping into Duck Broad lagoons completed.</i>							
Lower Bure	Continuation from 2011/12 programme	25/24	20,000	21,161	181,711	8.59	139,000
<i>Comments – Scare Gap setback filled and Six Mile House setback 75% filled.</i>							
Middle Bure	Island Strengthening at Salhouse Broad	17/18	12,000	11,271	304,494	27.02	200,000
<i>Comments – Completed</i>							
River Chet	Hardley Flood to Nogdam End	10/12	6,000	6,000	53,599	8.93	38,000
<i>Comments – Completed</i>							
TOTAL			50,000	48,432	706,880		527,000

¹ – actual project costs includes staff time for all delivered project elements (pre-works ecological mitigation, site set-up, active dredging & site restoration); BA plant time used; and budgetary expenditure (equipment hire, contractor costs, mitigation works, materials & consumables etc); within the reporting period.

Dredging programme 2013 /14

Project Title	Project Element	Active dredging duration (weeks) Planned	Volume Removed m ³		Planned annual project costs £	Actual project cost ¹ £
			Planned 2013/14	Actual 2013/14	Actual 2013/14	Actual 2013/14
Lower Bure	Six Mile House to Acle Bridge	22	20000		174,000	
Dredged sediment used to fill setbacks at Six Mile House and Stokesby						
Mid Bure	Thurne Mouth to Horning Church	12	9000		66,000	
Dredged sediment used to improve bank profile along the Lower River Thurne at White Mill						
River Ant	How Hill to Barton Broad	12	10000		92,000	
Dredged sediment used to fill setbacks at Buttles Marsh						
Heigham Sound	Navigation Channel	12	8000		88,500*	
Dredged material used to infill of the gabion basket lagoons at Duck Broad as part of the reedbed restoration project. *Estimated cost is currently based on contractor delivery.						
Upton Dyke	Full boat dyke	6	3000		24,000	
Dredged sediment used to infill low area between old and new flood banks						
TOTAL			50,000m³		£444,500	