

**Construction and Maintenance Work Programme:
Progress Report 2011/12 and Draft Programme 2012/13**
Report by Head of Construction and Maintenance

Summary: This report sets out the progress made in the delivery of the 2011/12 Construction and Maintenance Work Programme to date and updates members on changes to the programme. It also sets out the proposed programme for the forthcoming financial year for members comments

1 Construction and Maintenance Programme 2011/12: Progress

- 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 as of the 16 January 2012, 38,283 m³ 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 76% of the programmed target of 50,000m³.
- 1.2 Since the last committee report of 8 December 2011, work has continued on the Lower Bure, with removed material being deposited into the set back area near Scare Gap. The dredging project is progressing well, although high tides flooding the setback area and the crane suffering mechanical problems did cause early delays, we are taking advantage of the quieter waters and have three wherries operating on a turn-around basis.
- 1.3 Operatives and heavy plant has been mobilised to Hickling Broad, where work on the next phase of Duck Island has begun. The perimeter wall of the next enclosure is being built using gabion baskets, once these are placed and loaded with sediment the void they create will be filled with material from the navigation channel. To work during the winter months we had to obtain special permissions from Natural England as Duck Broad is an important overwintering site for wildfowl. In order to hold this permit our Environment Officers are conducting wildfowl surveys to monitor the effects on the duck numbers during our works.
- 1.4 The set back area used to contain material removed from the River Bure, near Thurne mouth, has been restored. The deposited sediment has been levelled, drainage grips have been dug, to allow ingress and egress of tidal waters and a back ditch to increase water flowing through the site has been constructed. We will monitor the site over the spring to ensure that reed and typher grows, and remove any weeds or self seeded trees.

- 1.5 Sediment removed from Thorpe River green and the River Yare was deposited into the Postwick Tip wet dredgings site. This material was removed from the wherries and loaded into the wet cell using the Smith C30 Grab. A grab is needed due to the high bunded wall created to contain the wet dredgings, but now we need to level the arisings out to aid the drying process. Therefore we have hired in a 360 excavator to carry out this work and reduce the loading on the bund wall.
- 1.6 The Fen Harvester is currently on Buttles Marsh, but has experienced problems with its engine, which the Fitters are trying to repair. The Fen Harvester is a bespoke machine capable of working in the difficult Fen conditions, but she is prone to mechanical problems. I will update the Committee verbally on the outcome once the fitters have assessed the damage.

Maintenance Teams

- 1.7 Maintenance teams have continued to work to priorities set on the works programme and a selection of some of the projects they have been involved with are described within this report.
- 1.8 The boardwalk at Filby is being replaced with a hoggin path and good progress has been made. A granular material was chosen for this site, over a traditional timber boardwalk, as it allows future maintenance of the site with heavy plant, without damaging the pathway. Another key element of this project is the excavation of a ditch which is an important refuge for spawning fish. This element of the project has been paid for by Essex and Suffolk Water, who is the owner of the site.
- 1.9 This time of the year the maintenance crews are carrying out small scale routine jobs to ready the network for the forth coming season. Therefore items like replacing speed limit sign, replacing worn and faded gauge boards and replacing damaged mooring posts have been prioritised. Following an inspection of the electrical charging posts, minor item of maintenance have been identified and this work is being carried out by certified electrical contractors, Southern Electric
- 1.10 The recent wet weather and high winds caused a number of trees to fall within the navigation area. Areas affected included the Billet at Wroxham, Thorpe River Green and Surlingham and these have all been dealt with. Scrub and small tree clearance has taken place at How Hill, Stanley Carr, and Hoveton Riverside Park. Safety ladders and low areas on the moorings have been attended to at Martham bank, Bramerton and Coltishall Common

2 Draft Programme 2012/13

2.1 The Table below gives the proposed dredging and piling projects for the 2012/13 year. The projected volumes reflect the amount of sediment needed to be removed in order for the water body to reach specification. Appendix 2 shows how the Construction and Maintenance time is allocated into the three statutory objectives and breaks down the Navigation element in more detail for members comments. Please note an allocation of 200 days has been allowed for Breydon Water but this is dependent on members' discussions.

Dredging Location	Projected Volume M ³	Disposal location	Description
Heigham Sound	12,000	In gabion baskets	Island re-creation following successful trials
Lower Bure	14,000	Scare Gap setback area	Continuation of existing project
Lower Bure	6,000	Six Mile House setback area	Removal of shoals on the bends btw Herringby Hall & Mautby Marsh
Middle Bure	12,000	Island strengthening at Salhouse Spit	Reinstating the eroded spit at Salhouse Broad
River Chet	6,000	Chet Mouth setback area	Btw Norton Marshes and Nogdam End
	50,000		

Piling works	Length (m)	Approx Cost £
Stokesby (steel)	30	60,000
Beccles (timber)	60	50,000

Channel Markers Heigham Sound	15no btw Meadow Dyke & Candle Dyke
-------------------------------	------------------------------------

3 Plant Refit and Repairs

- 3.1. The Fitters continue to be busy maintaining the workboats, cranes and launches used to assist the teams in their work. Grab 7 is currently undergoing routine maintenance before her safety certificate examination is carried out. The Motor launches are on their routine refit cycle with ML Waveney at Goodchilds Marine. RA is having protective layers of varnish applied at Ludham Field base and ML Barton is also in the workshop so our fitters can carry out some urgently needed repairs.
- 3.2 The expressions of interest for the building of a new mud wherry was placed in the EDP and Boating Business and great deal of interest was received. We are currently working on the legal contract with NCC legal Team, and finalising the specification prior to assessing letters of interest and letting the contract.
- 3.3 We have placed an order for six new Linkflote pontoons to the value of £80,000 including V.A.T. These heavy duty floatation units gives the dredging operation a great deal of flexibility as the flotes break up into individual components, allowing them to pass under the smallest bridges, before being re-assembled into a larger unit as well as accommodating a variety of cranes and excavator on their decks. These six will replace existing units which have reached the end of their lives and have become uneconomical to repair.

4 PRISMA

- 4.1 Prisma projects are progressing well with Upton Mud pumping and Thorpe River Green dredging projects completed. Duck Island has started and the island reclamation work at Salhouse Broad is progressing through the planning stages. We have also submitted our second financial claim to the JTS, although strict changes in the auditing processes, instigated by the European Union, may cause the payments to us to be delayed.

5 Dockyard Development

- 5.1 Ongoing conversations with the Planning Department have been helpful and at a recent meeting we were able to agree a final design for the new workshop and office accommodation. This design will be drawn up and presented at the 30 March Planning Committee meeting.

Background papers: Nil

Author: Rob Rogers
Date of report: 6 February 2012

Appendices: APPENDIX 1 – Dredging progress
APPENDIX 2 – Construction and maintenance Works Summary

APPENDIX 1

Project Title	Project Element	Duration (Weeks) To date/ Total	Volume Removed m ³		BA Actual Costs £	Cost per m ³	BA Programmed cost £
			Programmed	Completed To 16/01/12			
River Bure	Thurne Mouth	12/09	5,000	18,214	134,650	7.61	£55,000
Comments – Dredging project now complete, restoration of the setback area has also been completed to specified design							
Oulton Broad	Oulton Broad	9/5	4,000	4,844	39,931	8.24	£40,000
Comments – Project Complete – Arising were deposited into set-back at Oulton Dyke and the area will be restored to reedbed once the material has dried enough to allow the work to take place.							
Heigham Sound Duck Broad	Trial (20m x 20m) Island	1/1	40	40	379		£1,000
Comments – The baskets are maintaining their structural shape and have maintained a good level, reed is growing within the island and within the baskets.							
Heigham Sound/ Hickling Broad	Duck Island Phase 2	1/14	12,000	.	2,110		£130,000
Comments – Plant has mobilized to site and work has commenced on leveling the bed and placing the gabion baskets.							
River Yare	Thorpe River Green and New Cut	9/10	3,000	11,739	75,903	6.80	£120,000
Comments – The Dredging Crew have now moved onto Heigham Sound to construct the gabion walls and dredge the channel, equipment will remain in the Yare as a contingencies to allow dredging to continue if weather conditions stop the works on the more exposed Duck Broad							
River Bure	Gt Yarmouth to Stokesby	9/19	26,000	3,446	40,719	11.82	£210,000
Comments – Plant has been mobilized to the Lower Bure and dredging and dredging has commenced.							
TOTAL			50,040m³	38,283	293,692	Average 7.67m³	

2012/13 Construction & Maintenance Time Allocation

APPENDIX 2

Project Element	2011/12 Days	2012/13 Days	%	Total Days	Total %
Conserve & enhance natural environment				925	18.0 *
Fen management	325	575	11.2		
Lake restoration	290	20	0.4		
Invasive Species Control	10	30	0.6		
Landscape enhancements	210	300	5.8		
Promote understanding and enjoyment				900	17.5
Site management/ permissive paths	240	250	4.9		
Landscape and recreation projects	400	280	5.5		
TICs and hub maintenance	60	90	1.8		
Unallocated pending project development		280	5.5		
Protect the interests of navigation				5170	54.0 **
Dredging	1560	1550	30.2		
<i>Heigham Sound (12,000m3)</i>		460			
<i>Lower Bure (20,000m3)</i>		400			
<i>Salhouse Spit/Mid Bure dredging (12,000m3)</i>		300			
<i>River Chet (6,000m3)</i>		380			
<i>Oulton Marshes - setback restoration</i>		10			
Piling	130	50	1.0		
<i>Beccles South</i>		50			
Moorings	440	590	11.5		
<i>Barton Turf refurbishment</i>		20			
<i>Repps Bank refurbishment</i>		110			
<i>Deep Dyke refurbishment</i>		50			
<i>Aldeby refurbishment</i>		100			
<i>Somerleyton recapping</i>		40			
<i>Beccles South refurbishment</i>		90			
<i>Brundal Church Fen refurbishment</i>		30			
<i>Thorpe Green refurbishment</i>		50			
<i>Chain & ladder installation</i>		40			
<i>Mowing & general maintenance</i>		60			
Vegetation management	125	210	4.1		
<i>Weedharvester programme</i>		130			
<i>Upper Bure tree clearance</i>		50			
<i>Broadsword tree clearance</i>		30			
Signage and markers	75	130	2.5		
Navigation obstructions	20	40	0.8		
Breydon Water (pending agreement)		200	3.9		
Authority wide				535	10.4
Facilities maintenance	190	195	3.8		
Equipment maintenance	140	60	1.2		
Other (training, reactive work, sickness, meetings)	470	280	5.5		
TOTAL	4685	5130			100.0
Maximum number of work days	4700	5130			

grey boxes indicate work areas requiring further development

* 20% less Authority wide share of 2%, leaving 18%

** 60% less Authority wide share of 6%, leaving 54%