

Purchases from Plant, Vessel and Equipment Reserve

Report by Director of Operations and
Head of Construction, Maintenance and Environment

Summary: The opportunity to purchase a second-hand weed-harvester, together with the necessity to purchase more linkflotes and replacement of small tools means that officers want to spend £146,000 from the Plant, Vessels and Equipment Reserve which wasn't programmed. This requires consultation with the Committee and authorisation from the Authority at its next meeting.

1 Background

- 1.1 Officers want to spend an additional £146,000 from the Plant, Vessels and Equipment Reserve on replacing linkflotes, and a range of vibrating small tools and equipment and the purchase of a second-hand weedharvester, not previously budgeted.

2 Purchase of Linkflotes

- 2.1 An old set of Linkflotes were scheduled for a full assessment and refurbishment including re-plating any sections in poor condition and repainting. They were taken out of the water at the beginning of the year and pressure washed and inspected. The full condition assessment identified that the actual repairs required were considerably greater than expected, and in April it was decided that they were beyond economical repair.
- 2.2 Similarly, in January the Grab 7 dredging barge built in 1936 was lifted out to be water blasted and have a full marine condition survey conducted, as part of its planned maintenance, with the view to assess structural strength of the barge, carry out the repairs required and mount a different crane inside. The subsequent report identified a number of major structural issues with the steel, highlighted potential stress failures with the repair methodology and after a careful cost/benefit analysis it was decided the barge was beyond economical repair.
- 2.3 Officers are therefore proposing to purchase a set of replacement linkflotes at a cost £96,000 to provide a platform for long reach excavators to support the delivery of this winter's dredging programme. This expenditure was not envisaged when this year's budget was adopted.

3 Replacement of Vibrating Small Tools and Equipment

- 3.1 The Broads Authority uses a wide variety of small tools and equipment and as part of the Health and Safety Management System it monitors the vibration levels that staff operating this equipment are exposed to. The Authority has collected a large volume of vibration data from different equipment which has shown that that with well maintained, fit for purpose and modern power tools the Hand Arm Vibration Risk to members of staff can be managed.
- 3.2 A number of older mowers, outboard engines and an assortment of smaller hand held tools like electric drills, grinders and cutting items that produce high vibration, are used heavily in the management of the Broads and are used for prolonged periods need to be replaced at an estimated cost of around £20,000.

4 Opportunity to Purchase a Second-hand Weed Harvester

- 4.1 In 2012 a used 'Berkenheger 6510 Weed Harvester' was purchased with the view to retire the 10 year old Miller weed cutter, but such has been the demand for weed cutting that repairs were carried out and the Miller was retained. The resurgence in growth of aquatic plants can be attributed to improving water quality, reduced turbidity as accumulated silts are removed and longer sunnier days earlier in the year. From 2012 we have therefore operated two weed harvesters between May and October and it was projected that a replacement for the Miller would be required in 2020.
- 4.2 Late 2015, during the Miller yearly refit, mechanical issues and structural problems with the cutting head and hydraulics were identified and repair costs were uneconomic. This meant for the 2016/17 season only one machine has been available which has impacted upon the service and meant contractors have been used in support.
- 4.3 Officers have found a potential second hand replacement, another Berkenheger 6510 Weed Harvester, offered for sale by The Seaweed Company Scotland at £30,000. The vessel is in good condition, suffering from only minor cosmetic issues from being stored outside on a Scottish Island, many of the modifications required to operate the vessel have already been carried. It has a low recorded service usage and engine and hydraulics were found to be in good running order. (Note: A new 'Berkenheger 6510 Weed Harvester' would cost in the region of £160-to £170,000.)

5 Financial Implications

- 5.1 Good progress has been made in the replacement of the equipment gifted to the Authority by May Gurney much of which we knew at the time had a limited life. The income from PRISMA funded replacement of some of the older items.

- 5.2 The Authority has a Plant Vessels and Equipment Reserve which stood at £302,225 on 1st April 2016. Within that Reserve Fund is a specific Dockyard, Vessels and Equipment Reserve which stood at £162,868 on the same date. The Authority makes an annual contribution to the Dockyard, Vessels and Equipment Reserve of £92,000 (£64,400 from Navigation Income and £27,600 from National Park Grant). At the beginning of the financial year the only projected expenditure from the Dockyard Vessels and Equipment reserve was the outstanding 10% payment on the third wherry of £11,333. If the Authority authorises the additional expenditure of £146,000, that will leave the Dockyard Vessels and Equipment Reserve at £97,535 at the end of the financial year.

Dockyard, Vessels and Equipment Reserve

	Income/Expenditure	Balance
As at 1/4/2016		£162,868
Contribution to Reserves	+£92,000	£254,868
Final 10% on third wherry	-£11,333	£243,535
Purchase of Linkflotes	-£96,000	£147,535
Replacement of small equipment	-£20,000	£127,535
Purchase of 2 nd hand weed-harvester	-£30,000	£97,535
Balance as at 1/4/2017		£97,535

- 5.3 The Asset Management Strategy in respect of this equipment has been reviewed and a continuing contribution of around £90,000 per annum to the Reserve Fund is sufficient to continue the programme of investment and replacement of equipment. A schedule of major items of equipment is contained in Appendix 1 for Members information.
- 5.4 The views of the Committee are sought on the additional expenditure prior to consideration by the Broads Authority on 30 September 2016.

Background papers: Nil

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Appendices: APPENDIX 1 – Vessel and Equipment Inventory as at September 2016

Item	Condition	Planned maintenance works	Comments	Action date	Budget cost
Wherry Blucher	Not used by BA for 6 years	No planned useage or maintenance	scrapped Feb 2015		
Dumb lighter - Regal	Poor hull thickness	No planned useage or maintenance	scrapped Feb 2015		
Dumb lighter - Reaper	Poor hull thickness	No planned useage or maintenance	Scrapped Feb 2015		
Dumb lighter - Aubrey			Scrapped Feb 2015		
Wherry Monster	Poor hull thickness		Scrapped Feb 2015		
Wherry Junior	Hull very thin down to 1.5mm, engine old and worn. Requires replacing	Patching and repairs to maintain as she is, not worth huge	Scrapped Feb 2015		
Wherry Go Forward	Hull very thin down to 1.5mm, engine old and worn. Requires replacing	Patching and repairs to maintain as she is, not worth huge	Scrapped Feb 2015		
Grab 7	Barge is old and worn but serviceable and maintained. The NCK Crane was scrapped Sept 2015	Condition Survey 2016 identified extensive repairs (40-50K) Scrapped June 2016	No replacement required		
Wherry Virtue	Hull condition poor and engine old and tired.	Patching to hull and regular fixes to coax engine along £3,000	Scrapped Feb 2015		
Wherry Senior	Hull very thin down to 1.5mm, engine old and worn.RE-PLATING REQ 2014	With a hull re-plate this wherry will give 5-7 years more service.	Scrapped Feb 2015		
Fen harvester	Unreliable, prone to breakdown, SCRAPPED	Replacement planned 2014	Scrapped 2014		
Dumb lighter - Brown Bob		No works planned	Scrapped 2016	no replacement	
Dumb lighter - Cattle barge			Scrapped 2015	no replacement	

Weedcutter Horace Miller	work boat base in reasonable condition, engine old but reliable. Harvester cutting head front unit poor, twisted frame, aged and worn drive	General maintenance and servicing 1k pa, maintenance of cutting head, moving floor chains and frame repairs 3k pa	to be decommissioned as weedharvester but used as workboat/ fuel store, new secondhand machine to be sources	2016/17	£30,000.00
JCB 180	Regular service package	Yearly servicing 1k	Service package expires 2017, lease hire	2017	£0.00
Grab 10	Barge is 100 yrs old, serviceable but old and worn. Due to size and weight the bottom condition of barge is unknown	Planned decommission date April 2017	No replacement required.	2017	£5,000.00
LinkFlotes	2 sets of 9 flotes, (18 flotes) all new and in good condition (2014 & 2015)	Lifted out after 5 years, blasted and repaint	one new sets required (9no)	2016/17	£116,300.00
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Crane RB 22 (66)	In good working order, requires regular servicing and maintenance	Regular servicing and on-going upkeep £1,500 2012/13	To be scrapped 2018 and replaced with long reach excavator	2018	£0.00
Crane RB 22	In good working order, requires regular servicing and maintenance	Will need a new grab block £3,000 in 2014/15	To be scrapped 2018 and replaced with long reach excavator on lease hire	2018	£0.00
Wherry Onward	Hull very thin down to 1.5mm, engine old and worn.Requires replacing	Patching and repairs to maintain as she is, not worth huge expenditure.	Only 2 – 6 years life with careful cajoling.	2020	£120,000.00
JCB 160	Regular service package	Yearly servicing 2k	lease hire recommended	2021	£0.00
JCB 180	Regular service package	Yearly servicing 1k	Service package expires 2020, lease hire	2022	£0.00

Work Boat Z1	Major refit undertook in summer 2011, with electrics, deck, paintwork and cabin all replaced and recoated. A new engine was fitted and has proven reliable.	Yearly servicing and safety certification £1,500. Will require a 3 yearly refit & full mechanical service £4,000 Steering and paintwork needs addressing, general servicing and maintenance £6,000.	A seasoned workboat and with regular maintenance & servicing will operate for another 10 – 15 years.	2023	£150,000.00
Weedcutter Berky	Good general condition	retro fit water cooling added 13/14	Simple design should reduce running costs	2023	£50,000.00
Yard crane Smith C30	General good repair, but second hand. Is heavily used at the dockyard	Yearly servicing keeps it operational	The Dockyard will always need a mobile crane	2023	£70,000.00
Softrak MkII	Purchased in 2014	Regular routine servicing	expect 10 yr life	2024	£120,000.00
Tug Richard	A good tug but aging and in need of a refit.		With regular servicing another 10 -15 years	2024	£100,000.00
Work Boat Didler	Undergoing a major refit Summer 2012, with two new engines, deck area, hatches & electrics. A versatile work boat, ideal for work on Breydon due to keel coolers allowing it to sit in mud.	Yearly servicing and safety certification £1,500. Will require a 3 yearly refit & full mechanical service £4,000	A seasoned workboat and with regular maintenance/ servicing will operate for another 10 – 15 years.	2025	£150,000.00
Tug Cannonbrook	A 2nd hand vessel purchased from EA at Penton Hook. A good vessel with minor works required. Recently repainted	New gearbox fitted 2013 and operating as expected.	A well used and reliable vessel. 10 -15 years life.	2026	£100,000.00
Tug Bantum	Major refit summer 2012, lifted, shot blasted and repainted. Serviced and major overhaul of systems	With regular service and maintenance this tug will remain reliable and in operation	A well used and reliable vessel. 10 -15 years life.	2027	£100,000.00
Berky no.2	Second hand machine, estimated life	regular refit and servicing	subject to members approval 2016	2028	£80,000.00

Work Boat Shoveller	A well used and hard working vessel, overdue a refit (Didler was prioritised over Shoveller). Structurally sound, but refit needed	Refit at Richards underway (Sept 2013) additional work to non-slip deck and repair hydraulics also taking place.	With quality paint finish and regular yearly services will operate for 15 -20 years.	2033	£150,000.00
Wherry Tony Hewett	Hull in good condition but engine is worn and stern gear needs attention.	New engine and stern gear planned for 2014/15 £10,000	20 – 25 years of life with regular care and maintenance.	2034	£107,000.00
Wherry John Fox	Hull needs shot blasting and repainting, but in generally good condition.	Shot blasting and painting, plus servicing £3,500 2013/14	20 – 25 years of life with regular care and maintenance	2035	£107,000.00
			23 year strategy		£1,671,600.00
Wherry Iona	Fabricated in Ireland 2013 J Kearney	Delivered Dec 2013	Yearly servicing req £500	2052	£120,000.00
Wherry Gleaner	fabricated in Ireland 2014 J. Kearney	Delivered Jan 2014 – in service	Yearly servicing req £500	2053	£120,000.00
Wherry Cygnet	Fabricated in Cornwall Toms & Son	Delivered Jan 2016	Yearly servicing req £500	2054	£120,000.00
Dumb lighter - Colossus	Moored at Dockyard	No works planned	used as a welfare barge	no replacement	£0.00