

# **Navigation Committee**

# **AGENDA**

# Thursday 19 October 2017

# 2.00pm

		Page
1.	To receive apologies for absence	
2.	To note whether any items have been proposed as matters of urgent business	
3.	To receive declarations of interest	
4.	Public Question Time To note whether any questions have been raised by members of the public	
5.	To receive and confirm the minutes of the Navigation Committee meeting held on 07 September 2017	3 – 12
6.	Summary of Actions and Outstanding Issues following Discussions at Previous Meetings Report by Administrative Officer (herewith)	13 – 14
7.	Proposed Navigation Charges for 2018/19 in the Navigation Area and Adjacent Waters Report by Chief Executive, Chief Financial Officer and Collector of Tolls (herewith)	15 – 34
8.	Mutford Lock Report by Chief Executive, Rivers Engineer, and Solicitor and Monitoring Officer (herewith)	35 – 42
9.	Asset Management Update Report by Asset Officer (herewith)	43 – 47
10.	Boat Test Area Review Report by Head of Safety Management (herewith)	48 – 56
11.	Broads Authority Commercial Paddling Scheme Report by Head of Safety Management (herewith)	57 – 62

		Page
12.	Construction, Maintenance and Environment Work Programme Progress Update Report by Head of Construction, Maintenance and Environment (herewith)	63 – 66
13.	<ul> <li>Planning Applications with Navigation Implications:</li> <li>Thorpe River Green, Thorpe St Andrews – change of use to mixed use moorings.</li> </ul>	67 – 69
14.	Navigation Income and Expenditure: 1 April to 31 August 2017 Actual and 2017/18 Forecast Outturn Report by Chief Financial Officer (herewith)	70 – 80
15.	Chief Executive's Report Report (herewith) – For information only	81 – 88
16.	Current Issues Open forum	
17.	Items for Future Discussion	
18.	To note the date of the next meeting – Thursday 14 December 2017 at Yare House, 62-64 Thorpe Road, Norwich commencing at 2.00pm	

# **Navigation Committee**

Minutes of the meeting held on 7 September 2017

### Present:

Mrs N Talbot (Chairman)

Mr K Allen Mr M Heron Mr S Sparrow
Ms L Aspland Mr J Knight Mr M Whitaker
Sir Peter Dixon Mr G Munford (1/1-1/10) Mr B Wilkins

### In Attendance:

Ms N Beal – Planning Policy Officer

Mr S Birtles – Head of Safety Management

Mrs L Burchnall - Head of Ranger Services

Mr A Clarke - Senior Waterways & Recreation Officer

Ms A Cornish - Planning Officer

Ms E Guds – Administrative Officer (Governance)

Mr D Harris - Solicitor & Monitoring Officer

Dr D Hoare - Head of Construction, Maintenance and Environment

Mr T Hunter – River Engineer

Ms E Krelle - Chief Financial Officer

Dr J Packman - Chief Executive

Ms S Stephenson - Environment & Design Supervisor

### Also Present:

Prof J A Burgess - Chairman of the Authority Lana Hempsall - Broads Authority Member

# 1/1 To receive apologies for absence

Apologies for absence were received from Matthew Bradbury and John Ash. The Chair said that comments received from John Ash would be fed into the discussions.

# 1/2 To note whether any items have been proposed as matters of urgent business/ Variation in order of items on the agenda

No items had been proposed as matters of urgent business.

## 1/3 To receive Declarations of Interest

Members expressed their declarations of interest as set out in Appendix 1 of these minutes.

The Solicitor and Monitoring Officer advised that those Members who had declared a personal interest in the item on the policy on residential moorings in the draft Local Plan should leave the room before a discussion on this item took place.

One Member expressed his wish to make a general comment on residential moorings before this item was considered by the Committee. The Solicitor and Monitoring Officer suggested a brief adjournment before Agenda Item 1/11, Broads Local Plan, allowing him to consult with the Member about the nature of his request.

### 1/4 Public Question Time

No public questions were raised.

# 1/5 To receive and confirm the minutes of the Navigation Committee meeting held on 20 April 2017

The minutes of the meeting held on 20 April 2017 were confirmed as a correct record and signed by the Chairman.

# 1/6 Summary of Actions and Outstanding Issues following Discussions at Previous Meetings

Members received a report summarising the progress of issues that had recently been presented to the Committee.

One Member commented that the signs at the Irstead Shoals must be competent as he had not received any negative comments.

When asked whether the Committee would receive an update on the Staithes Report it was explained that once the feedback on the draft report had been received along with the maps, it would be published on the Authority's website. Professor Williamson had only been commissioned to give two presentations, one at the Broads Forum meeting in July 2016 and a second at the Broads Authority meeting in July 2017, to which Navigation Committee Members had been invited.

Members noted the report.

# 1/7 Progress in Implementing the Sediment Management Strategy

Members received a report and presentation on an analysis of recent hydrographic survey data and the draft dredging programme for 2018/19.

Comparisons with previous reports on estimated sediment volumes showed some significant differences, in particularly for the rivers Yare and Waveney. Officers had investigated this and reported that the increase was largely due to improvements made to survey method, and therefore data accuracy since 2011, rather than physical changes in the waterways. Where repeated surveys had been taken since 2011, for example the River Bure, changes in sediment volume was better understood with clear reductions where dredging had been undertaken.

The Committee applauded the work which had been achieved and recognised that the approach to sediment management was much improved. The Chair highlighted how the development of more accurate recording had improved the decision making process on which areas to target.

A Member commented he would like to see landowners take more responsibility for the run off of sediment from their fields into the waterways.

A concern was raised that based on the recent evidence the average volume of 25,000 cubic metres of sediment removed from the River Bure each year, half of the programmed target for the Broads as a whole, only just about maintained the status quo. Members also remarked that there was no dredging in the River Thurne or Yare this year and it was questioned whether Waxham Cut was a sensible priority for the proposed dredging programme 2018/19, as it was so little used.

There was a further concern that unless the target for sediment removal were increased or even doubled, the specifications might never be met. It was commented that the Authority had a duty to maintain the waterways, whatever funds required, even if this meant having to increase toll charges.

The Rivers Engineer stated that dredging in the Rivers Yare and Thurne were in the five year plan and, especialy with CANAPE coming up, would be addressed in the coming years. It was further explained that Waxham Cut, was getting very shallow and needed to be dealt with urgently. He clarified that the River Bure would always be on the priority list because the compliance was low and the rate of siltation very high.

It was confirmed that, especially with CANAPE on the horizon, Hickling would be scheduled for dredging next year. It was also confirmed that the estimated sediment volumes were based on surveys of the navigation areas only and therefore Martham Broad and Duck Broad were not included in the figures.

The Head of CM&E commented as regards to the use of Waxham Cut, that from comments made and contact with Broads Control there was a demand for Waxham Cut to be dredged.

Members welcomed the report.

# 1/8 Construction, Maintenance and Environment Work Programme Progress Update

Members received a report which set out the progress made in the delivery of the 2017/18 Construction, Maintenance and Environment Section work programme from April 2017 to end July 2017. A summary of the year-end figures for dredging work during the 2016/17 year was also provided.

A presentation outlined the plans for Hickling Broad for the next 3-4 years. It was hightlighted that waterplant management in Hickling was an ongoing process and plants were growing taller and spreading towards the marked navigation channels.

The Chair acknowledged that good progress had been made on the overall programme for 2016/17.

It was confirmed that work on the River Chet was still going ahead as planned and that tree work would be carried out ahead of the dredging.

A Member commented that the sailing conditions this year on Hickling Broad had been very difficult. He said that despite all the great work carried out by the Authority and Natural England, cut weed seemed to be drifting into the central area. Hirers were suffering as well and there were a number of instances when hired boats needed to be rescued.

The Head of Contructions, Maintenance and Environment confirmed that the cutting of the plants in the marked channels, including the approach to Catfield Dyke, had been carried out twice this year, once early August and once at the beginning of September.

It was enquired how it could be known whether Stoneworts either had survived the cuts or not. It was explained that ongoing monitoring would be undertaken over the course of next year in the areas that had been cut and untouched control areas. This monitoring aimed to provide the type and quality of evidence for evaluation supporting the Authority and Natural England to make an informed decision on the potential for any future larger scale management of Stoneworts on Hickling Broad.

Members noted the report.

## 1/9 Riverside Tree and Scrub Management

The Committee received a report and presentation outlining how management of riverside trees and scrub was required to maintain navigation safety and wind availability whilst retaining environmental features and interests. A five year plan, prioritising the location of riverside management had been produced, incorporating the permissions required, consultation and agreed methodology.

A Member queried why the navigation bodies had not been consulted on tree management. He believed that sailing conditions even after tree management remained dreadful and in many areas didn't reinstate the bygone landscape of open valleys with rivers on which all craft including trading wherries were propelled by sail. He further commented that there should be no tree growth on flood banks.

Members were informed that some habitats had not received management for some time. It was explained that the Authority had to work within its resources and therefore had to prioritise and go through a consultation process. The Senior Waterways and Recreation officer commented that the Norfolk Suffolk Boating Association and the British Hire Boat Federation had been consulted in the past on the annual tree clearance programme and that further details could be provided if necessary. It was also clarified that during flood defence works trees were cleared from the floodbank work corridor but not between the front face of the floodbank

and the river's edge where there was a wide rond. Additionally specimen trees that are close to the floodbank are retained where appropriate.

Another Member commented that due to lack of tree management the River Ant would soon be inpassable and it was impossible for wherries to sail certain parts of the River Bure. He believed that as a Navigation Committee they had a duty to maintain and enhance navigation.

Other Members expressed views which recognised the challenges of both meeting the needs of conservation and at the same time the needs of navigation. It was suggested that, as tree management was the landowners' responsibility, the Authority should put more pressure on Natural England, which owned a significant amount of the adjacent land, to manage encroachment on the navigation area that they are responsible for.

The Head of Construction, Maintenance and Environment explained that the strategy adopted dealt with safety issues and that the sustainable use of fen areas created tree corridors. Therefore it wasn't just a navigation issue but a wider cultural aspect of the use of the broads which created these conditions.

A Member said it would be useful to have the entire tree management plan including what was happening on the Yare and suggested that maybe wider priorities would need to be put forward to the Committee so Members could express their priorities. He further agreed to putting more pressure on landowners for acting on their responsibilities.

The Environment and Design Supervisor explained that the prioritation process included a matrix scoring system making it as objective as possible to help with the programme of works.

It was agreed to include Scrub and Tree Management in the CM&E update report every six months.

Members noted the report.

# 1/10 River Wensum Strategy Consultation

Members were provided with a report and presentation detailing the draft River Wensum Strategy that was currently being consulted on and highlighted the main aspects of the strategy that relate to navigation and access to the River Wensum.

The Strategy was very well received and supported by the Members. Some comments were made however that the strategy lacked mention of the issues around Trowse Swing Bridge and believed this should be incorporated in the strategy. In particular, the strategy presented an opportunity of addressing the consequences of Network Rail's ambition of reducing journey times to London and the long-term possibility of the port of Norwich being unavailable to larger vessels.

A Member mentioned he supported the strategy's focus for organised angling competitions to take place after October. This would work well with the idea of having an Anglers Festival in the city during the winter months.

The Committee supported the proposals in the report, and stated a preference for filling the missing link on the riverside walk between Blackfriars' Bridge and Dukes Palace Bridge with a section of path on the north (true left) bank of the river as this would remove any need to encroach on river width at Blackfriars' Bridge.

The Senior Waterways and Recreation Officer confirmed he would feedback the comments of the Committee and their general support for the strategy and informed Members that they could also submit their individual comments directly to the consultation if they wished to do so.

Greg Munford left the meeting at 4 pm.

## 1/11 Broads Local Plan - Publication Version

Members received a report which introduced the Broads Local Plan Publication Version. This was the third consultation stage of the Local Plan production and included final policies for the stakeholders and public to consider. It was intended that the consultation would run from 4 October to 15 November 2017, covering six weeks.

Following a brief adjournment for the purpose of clarifying the situation about declaration of interest, the Solicitor and Monitoring Officer advised that those Members declaring interests in their business and residential moorings would be entitled to remain and participate providing their contribution was limited to discussion of general policy. The Solicitor and Monitoring Officer clarified that one of those Members would be entitled to put a question relating to what they considered to be an error on page 59 of the Residential Moorings Topic paper relating to policy DP25.

A member suggested that there was an error on page 59 in relation to Policy DP25 and specifically mentioned that none of the sites to be allocated were within or adjacent to a development boundary. The table should then go on to talk about the services and facilities that the sites have access to.

The Planning Policy Officer took on his comments and said she would make the amendment.

The Policy Planning Officer then addressed the Broads Local Plan itself. Although applauding the Local Plan, one Member commented he was disappointed about the lack of navigation mentioned within the objectives of the Local Plan and recommended there should be a specific criteria relating to navigation. The Policy Planning Officer indicated that she would pass on these comments to the Planning Committee.

Members noted the report.

# 1/12 Planning Application with Navigation Implications: Redevelopment of the existing Wayford Marina

The Committee had been made aware of a planning application which had been submitted in respect of the redevelopment of the Wayford Marina on the River Ant at Wayford Bridge. The scheme sought to improve the services and facilities provided at the marina, rationalise and improve the mooring opportunities and provide holiday accommodation at the southeastern end of the site.

When it was suggested that the site should have free visiting moorings for public use, the Planning Officer confirmed that the proposals provided three free moorings. The policy stated that a minimum of 10 percent free moorings was required, which meant there might be room to negotiate for more free moorings.

One Member suggested demasting moorings for public use, although it was queried by another Member whether this was necessary on this stretch of the river.

The Planning Officer said it was hard to confirm how many additional moorings would be provided as currently there were many triple and illegal moorings.

Members in general agreed with the planning permission but suggested to push for more moorings.

Members noted the report.

# 1/13 Annual Income and Expenditure: 2016/2017

Members received a report which set out a summary of the Authority's income and expenditure for the 2016/17 financial year, analysed between national park and navigation funds. Original and Latest Available Budget information was provided for comparison.

The Chief Financial Officer informed Members that the accounts had been audited and were approved by the Full Authority on the 28<sup>th</sup> of July. Members were reminded that the accounts had a faster close this year as a trial for next year, because next year they would need to be signed by the the 31<sup>st</sup> of July. Members were reminded that it was very important to accurately complete their related party declarations which should tie back to their original declaration. It was stressed that next year the auditors would review this area in more detail.

Members noted the report.

# 1/14 Navigation Income and Expenditure: 1 April to 30 June 2017 Actual and 2017/18 Forecast Outturn

Members received a report which provided them with details of the actual navigation income and expenditure for the three month period to 30 June 2017, and gave them a forecast of the projected expenditure at the end of the financial year (31 March 2018)

A verbal update was provided on the income and expenditure up until the end of July. Hire and Private Craft Income continued to remain ahead of profile which had resulted in the forecast outturn increasing. However at this stage it did not include the purchase of Acle Bridge moorings.

Members noted the report.

# 1/15 Chief Executive's Report

This report summarised the current position in respect of a number of important projects and events, including decisions taken during the recent cycle of committee meetings.

Members received an update on the item Anti-Social Behaviour and were informed that the working group had arranged a meeting on the 4<sup>th</sup> October with the NSBA, the Hire Boat Federation, Broads Society and the Constabulary. Also the Chief Executive and the Head of Ranger Services had a productive meeting earlier that morning on the topic with the Inspector responsible for Broads Beat.

A Member mentioned that the Angling Trust had offered assistance to the Environment Agency following reports of anti-social behaviour at the angling platforms at Postwick. The Environment Agency had however declined the offer which the Member felt was disappointing. The Head of Ranger Services responded that Broads Beat had been supporting the Environment Agency with this issue. The Environment Agency planned to clear the sites at Postwick by cutting back vegetation making it more open.

Another Member mentioned that she had been approached because the sound of shots fired had been heard on the River Waveney next to the moorings. It was assumed was that this was in relation to shooting game or potshots. The Head of Ranger Services said she was unaware of this incident and would follow this up with Broads Beat.

A Member updated the Committee that the Broads Hire Boat Federation had now developed a Code of Practice which was signed by all Federation Members.

Members noted the report.

### 1/16 Current Issues

A Member informed the Committee of an incident on Hardley Dyke caused by unravelling matting and wanted it noted that this was a pressing issue, particularly in this location. The Chair said she would mention this at the next Boat Safety meeting.

Officers were thanked for their efforts in the succesfull purchase of the moorings at Acle Bridge. Members were informed that safety issues would be addressed first, i.e filling up of the pot holes. This would be followed by a survey of the main building.

### 1/17 Items for future discussion

The Chair informed the Members that the agenda for the next Committee meeting would include the consultation on tolls for 2018/19 and the transfer of Mutford Lock.

In regards to an incident of a toddler falling into the river Bure at the Great Yarmouth Yacht station, one Member suggested that a discussion was needed about of the Authority using its powers and making wearing a life jacket compulsory. The Chair responded that there would be an opportunity for this to be discussed at the Boat Safety Meeting.

## 1/18 To note the date of the next meeting

The Chair highlighted that the next meeting of the Committee had been brought forward one week and would be held on Thursday 19 October 2017 at Yare House, 62-64 Thorpe Road, Norwich commencing at 2pm.

### 1/19 Exclusion of the Public

**RESOLVED** 

The Committee is asked to consider excluding the public from the meeting under section 100A of the Local Government Act 1972 for consideration of the item below on the grounds that it involves the likely disclosure of exempt information as defined by Paragraphs 1 and 3 of Part 1 of Schedule 12A to the Act as amended, and that the public interest in maintaining the exemption outweighs the public benefit in disclosing the information

Members of the Public left the meeting

## **Summary of Exempt Minutes**

# 1/20 To receive and confirm the exempt minutes of the Navigation Committee meeting held on 20 April 2017 (herewith)

The exempt minutes of the meeting held on 20 April 2017 were confirmed as a correct record and signed by the Chairman.

The meeting concluded at 4.51 pm.

Chair

# **APPENDIX 1**

# Code of Conduct for Members

# **Declaration of Interests**

Committee: Navigation Committee

Date of Meeting: 7 September 2017

Name Please Print	Agenda/ Minute No(s)	Nature of Interest (Please describe the nature of the interest)	Please tick here if the interest is a Prejudicial interest
Max Heron	6 - 11	Toll payer, landowner, Member British RC, NRC, Chair Whitlingham Boathouses	
Simon Sparrow	11	Toll Payer, hire boat operator, resident	
Michael Whitaker	11	Toll payer, Hire Boat Operator, Chair BHBF, resident	
Peter Dixon	9	Trees versus Sailing	
Kelvin Allen		Chair of BASG	
Greg Munford		Toll payer, non British Marine, Resident, Broads Tourism Director	
James Knight	11 in particular	Hire Boat Operator, Yacht Club Member, and Toll payer. Director of Waveney River Centre which was included in the assessment and evaluation of residential moorings for the Broads Local Plan.	
Brian Wilkins	9	Chair NSBA, all issues	
Nicky Talbot	12	Toll Payer, Member of NSBA and NBYC	
Linda Aspland		Hunter fleet, Toll payer, NBYC Committee, local resident	

Broads Authority
Navigation Committee
19 October 2017
Agenda Item No 6

# Summary of Actions and Outstanding Issues Following Discussions at Previous Meetings Report by Administrative Officer

Date of Meeting and Minute No	Discussion	Responsible Person	Summary of Actions and Outstanding Issues
20 April 2017 Minute 1/8 Summary of Actions and Outstanding Issues following Discussions at Previous Meetings	Prof Williamson had been chased for the Staithes report and the Authority hoped to receive the maps by the end of April.	Senior Waterways & Recreation Officer	The photographs of the maps available at the public record office have been received and the draft staithes report has been sent to all parish councils in the Broads with a request for comments and for parish councils to provide any additional information they hold.  Comments received from Parish Councils will be reviewed by BA officers and Professor Williamson and the document amended as necessary prior to publication. Photographs received from UEA will also be published.
07 September 2017 Minute 1/15 Chief Executive's Report	Provide feedback from Anti-Social Behaviour working group meeting on 4 <sup>th</sup> October.	Chief Executive	This matter is being addressed under Agenda Item 1/15 the Chief Executives Report.
07 September 2017 Minute 1/15 Chief Executive Report	The Head of Ranger Services said she would follow up on	Head of Ranger Services	Incident passed to Broads Beat. They have passed it on to Suffolk Police and it is still under investigation.

Date of Meeting and Minute No	Discussion	Responsible Person	Summary of Actions and Outstanding Issues
	the shooting on the River Waveney with Broads Beat and feedback.		

**Broads Authority Navigation Committee** 19 October 2017 Agenda Item No 7

# Proposed Navigation Charges for 2018/19 in the Navigation Area and Adjacent Waters

Report by Chief Executive, Chief Financial Officer and Collector of Tolls

## **Summary:**

The financial strategy predicts a 2.5% increase in tolls per annum to maintain the existing level of services. However, the increase in the size of the private motor boat fleet and the better than anticipated performance in hire boat numbers means that the Authority is in a much stronger financial positon than seemed likely a year ago.

Even after a contribution of £30,000 from the current account to the purchase of the moorings at Acle Bridge the Authority would be able to afford a below inflationary increase of just +1% in tolls to maintain its existing level of services, taking into account inflationary and other pressures (See para 4.1).

Following consultation with the Tolls Review Group this report seeks the views of the Committee on proposals for next year's tolls on the following basis that:

- (i) No changes are necessary to the amended structure for tolls implemented on 1st April 2017 which seems to have achieved one of its goals of stemming the decline in the number of small private motor boats.
- (ii) An across the board approach should be adopted with navigation income increasing at the same rate for the whole of the hire fleet and the private fleet and that there is no need this year to have a different approach within the categories for the two fleets.
- A range of alternatives for additional work and associated (iii) increases in charges are presented for the Committee to consider.

The views of the Committee are sought on:

- The level of charges in the Navigation Area and Adjacent (a) Waters for 2018-19;
- The proposal that the Authority stops printing adhesive toll (b) plaques permanently, other than for short visit tolls.

#### 1 **Private Motor Boats**

- 1.1 In April 2017 the Authority implemented a new charging structure which it believed to be fairer and easier to understand. This involved moving to a straightforward calculation for tolls where the size of the boat in metres is multiplied by a charge per square metre. The effect of the change was to reduce the charges for smaller boats with 44% of all boats seeing a reduction. while increasing the charges for the larger boats.
- 1.2 In part these amendments were in response to changes in the fleet. The following table was presented in last year's report highlighting the reduction in the number of small private motor boats while large motor boats were on the increase.

**Table 1 Private Motor Boats by Size** 

Size m <sup>2</sup>	2008	2009	2010	2011	2012	2013	2014	2015	△ 2008-15	%∆ 2008-15
1-10	2292	2130	1930	1940	1866	1844	1828	1775	-517	-22.6%
11-20	1795	1923	1956	1991	1958	1983	1960	1950	+155	8.6%
21-30	1427	1487	1529	1566	1603	1614	1642	1630	+203	14.2%
31-40	736	765	800	814	819	865	865	893	+157	21.3%
41-50	283	294	289	296	304	319	343	364	+81	28.6%
51-60	39	46	44	51	60	63	65	65	+26	66.7%

1.3 The change in the charging structure from April 2017 was the most radical since 1981 when the Port and Haven Commissioners moved from a system based on tonnage to one using square metres. Doubts were expressed about the potential for a revival in small private motor boat numbers and some owners of larger motor boats indicated that they would be relocating their vessels outside the Broads. In practice Table 2 shows that the decline in small motor boats has been reversed and in fact they increased by over 10% and the number of larger craft has not diminished with the number between 31 and 60 square meters being virtually unchanged at 1315 compared to 1311 last year.

Table 2 Private Motor Boat Fleet 2016-17 (as at 30<sup>th</sup> September)

Size m <sup>2</sup>	2016	2017	Change	% Change
1-10	1646	1820	174	+10.6%
11-20	1895	1893	-2	
21-30	1604	1609	5	
31-40	870	882	12	
41-50	374	370	-4	
51-60	67	63	-4	
61-70	16	14	-2	
71-80	2	4	2	
81-90	3	3	0	
91-100	2	2	0	
101-110	1	2	1	
Grand Total	6480	6662	182	+2.8%

### 2 **Hire Boat Industry**

- 2.1 The number of weekly hired motor cruisers has been in decline since a high point of over 2,200 in the 1980s. This has caused the Authority real concern because they are the backbone of waterborne tourism in the Broads which is an iconic part of the area's vital industry. The Broads Hire Boat Industry predicted continued decline in 2017-18 with a further reduction of 20 boats and the Broads Authority made an allowance in its financial calculations accordingly. The decline was predicated on the on-going sale of older boats and re-investment in new, primarily larger more luxurious vessels which have proved to be very attractive to visitors.
- 2.2 Table 3 shows that in practice the fleet has increased rather than declined and the outlook from forward bookings for 2018-19 also looks very positive. The good working relationship with the tourism industry has flourished under the aegis of Broads Tourism and further coordinated marketing of the National Park is planned for the coming year.

**Table 3 Number of Weekly Hired Motor Cruisers** 

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
No.	803	843	878	904	894	869	842	821	789	802
Change		+40	+35	+26	-10	-25	-27	-21	-42	+13

### 3 **Income and Expenditure for 2017-18**

3.1 Navigation income in the current year has as a result been above that budgeted, with the Predicted Outturn for 2017/18 shown in Table 4 being £57,000 above the Latest Available Budget.

Table 4 Budget compared to Predicted Outturn for 2017/18

	Latest Available Budget 2017/18	Predicted Outturn 2017/18
Navigation Income	£3,179,500	£3,236,961
Expenditure	£3,187,255	£3,219,829
(Surplus)/ Deficit	£7,755	(£17,132)
Transfer of accrued interest to ear-marked reserves	£3,750	£3,750
<b>Opening Reserves</b>	£325,955	£325,955
<b>Closing Reserves</b>	£314,450	£339,337
Reserves as % of Expenditure	9.9%	10.5%

Expenditure has also been above budget. In August 2017 the Authority 3.2 purchased the moorings and associated buildings at Acle Bridge at a cost of £180,000. The bulk of this, £150,000, was funded from the moorings budget

- by deferring repairs and Hoveton Viaduct. The balance, £30,000, was paid for from the current account using the additional income received.
- 3.3 The net effect of these changes is shown in Table 4 with closing reserves at 10.5% of Expenditure, just above the minimum of 10.0% required but standing at £339,000 rather than £322,000.
- 3.4 The Authority is in the process of disposing of the Ludham Field Base which is surplus to requirements. Should this be completed at the current subject to contract offer then there will be a capital receipt shared 60:40 between National Park and Navigation Income lines. The receipt will have to be ring fenced for capital expenditure. Potential uses for the capital receipt on the navigation side is to use the funding for investing in new facilities at Acle Bridge and potentially towards pontoons at Thurne Mouth, if agreement can be reached with the landowner.

#### 4 **Pressures on 2018-19 Income and Expenditure**

- 4.1 The better than predicted outturn for 2017-18 puts the Authority in an excellent position going forward into 2018. As always at this stage in the financial year there are a significant number of unknowns around the Authority's expenditure for next year. There are three in particular: salary costs, other inflationary pressures, and the potential loss of further hire boats. Following consultation with the Tolls Working Group and the major hire boat operators the following assumptions have been made:
  - i) A 1.5% salary increase is assumed for staff as a prudent provision. For the last four years local government salaries have been held at +1.0%. The Government has indicated that the cap on public sector pay is likely to be removed and it is not clear what this will mean for the public sector pay settlement.
  - ii) The Authority has not increased the cash expenditure on other elements of the budget, such as the purchase of materials etc., for the last four years. In August 2017 consumer price inflation (CPI) was running at 2.9% (RPI was 3.9%). Rather than inflating all non-salary items in the budget by 2.9%, officers have reviewed all expenditure heads and increased two headings by 2.9% - Vessels and Equipment (VES) and Insurance (INS).
  - iii) Provision has been made for the following additional expenditure:
    - Dredging (DRD) an additional £15,500 for restoration costs needed at the Postwick Tip site. The Wet Cell has been filled over the last two dredging campaigns on the River Yare. This dry material is now ready to be loaded onto 6 wheeled dumpers and taken to the dry cells for spreading and forecast to take 5 weeks. This additional money is for the hire of the plant needed for this duration to restore the cells and to get the Postwick Tip ready to receive more wet dredgings.
    - b. Mutford Lock (MLK) an additional £9,000 to fund additional costs by Sentinel for the operation of the Lock.
    - c. Boat Safety (BST) an additional £2,600 to fund an additional electronic speed sign.

- iv) Although provision was made in 2017/18 for the potential loss of 20 weekly hired boats this proved not to be necessary. Following discussion with the major operators it is predicted that there will not be any significant changes in hire boat numbers for 2018/19 so it is not proposed to make any provision for a reduction in hire boat income.
- 4.2 The additional income from private and hired vessels above that in the budget is such that even with the provisions identified above an increase of just 1% in charges is required for 2018/19 to maintain the current level of service.

#### 5 **Options for Additional Expenditure**

5.1 The Insight Track research identified that to a greater or lesser extent private boat owners and hire boat operators would like more spent on dredging, maintenance and provision of moorings and other services, patrolling and safety. This view has been reinforced in recent meetings of the Navigation Committee where these matters have been discussed: moorings (20<sup>th</sup> April), anti-social behaviour, dredging, riverside tree and scrub management (7th September). A range of alternative approaches was explored with the Tolls Working Group whose preference was for any additional expenditure to be targeted on increased patrolling, particularly in the evenings, to address recent concerns about anti-social behaviour. This recommendation, together with other options, is presented below for the Committee's consideration.

### 5.2 Safety Signs (+£10k, +0.3% increase in tolls)

5.2.1 The Authority has trialled a warning sign to make users of the waterways aware of the speed of their boat. This has proved to be very effective in reducing the level of speeding boats. Provision has been made for the purchase of one additional sign but the Head of Safety Management would like to purchase a further four so as to provide coverage at key locations.

### 5.3 Increased Patrolling by the Rangers (+£60k, +1.9% increase in tolls)

Concerns about anti-social behaviour and speeding boats have raised the suggestion of increasing the level of patrolling by the Authority's Rangers and extending their hours into the evenings. The current level of patrolling (315 hours per week on the water in the summer and 48 hours in the winter) has been stable since the changes made in 2012 when National Park Grant was cut. The Head of Ranger Services is exploring a range of options for increasing the level of patrolling. The changes could involve a significant amendment to the rostering of Rangers, including the team working longer hours over the summer season. This may require a change in the Terms and Conditions of Employment for the Rangers, an amendment to the balance of work between the countryside and navigation responsibilities, currently 40:60 to 35:65, and the employment of two additional summer seasonal rangers to assist in increasing the amount of cover provided. Such a change could increase the number of hours patrolling on the water in the summer from 315 hours to 375 hours a week approximately.

- 5.4 Additional Bankside Tree and Scrub Management (+£60k + 1.9% increase in tolls)
- Bankside management is heavily dependent upon landowner permission as a starting point. Once those agreements have been secured, consents from Natural England and felling licences from the Forestry Commission are required along with environmental habitat surveys and permission to use herbicides (to treat root stumps). This process can take over a year to secure so having a 5 year plan helps focus our attention on when and what work can happen. It allows officers to start preparation in time for the winter works (This management cannot be done at other times due to nesting birds).
- 5.4.2 In order to increase the volume of bankside management undertaken the preferred option is increased mechanisation through the purchase of additional plant and equipment (extra NATO floats, smaller 8t excavator & hydraulic tree shears). Purchase of this equipment would allow a longer term approach (a 10 year plan for bankside management) and show efficiencies as resources involved in bankside management would be fewer, a reduction in hand arm vibration (chainsaws are one of our biggest sources of vibration in the workplace) and mechanisation would heavily reduce the manual handling aspects of this work. The added bonus of the mechanical approach is that the Authority would get through the winter work bankside clearance areas quicker, allowing scope for other tasks on navigation to be done.



Picture 1 Example of hydraulic tree shears

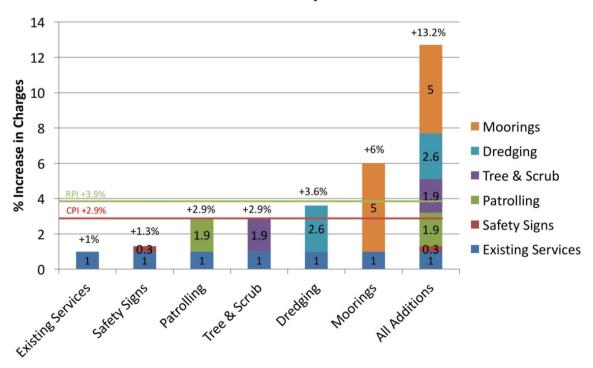
#### 5.5 Increased Dredging (+£80k, +2.6% increase in tolls)

5.5.1 At the last meeting of the Committee the Rivers Engineer presented a report on the progress being made in implementing the Sediment Management Strategy. More accurate hydrographic surveys showed that there is still a considerable amount of sediment to remove from the waterways. If the Committee wanted to make an impact on this then an £80,000 contract to pump dredge one of the priority areas could be programmed for next year.

### 5.6 Maintenance of Moorings (+£150k, +5% increase in tolls)

- 5.6.1 A 'Cockshoot' full mooring repiling is circa £150,000. The Authority has a top 10 list of sites which need priority works. This funding would enable one of those sites to be brought forward.
- 5.6.2 A 'pick and mix' set of options is provided for members to consider. The additional income in 2017/18 provides the Authority with the opportunity to bring forward one of these high priority options with a relatively lower toll increase. This is shown graphically in Figure 1 with the relative percentage increases for the different options ranging from a simple +1% to maintain the existing level of service up to +13.2% if all the options identified are selected.
- 5.6.3 The purchase of equipment to enhance tree and scrub clearance and the speed signs are one off purchases so one option would be to purchase the equipment this year and then re-examine the need for increased patrolling in a year's time.

Figure 1 Percentage increases in navigation charges for different options



### 6 **Draft Income and Expenditure for 2018/19**

- 6.1 A Draft Income and Expenditure Table has been developed for 2018/19 based on three options as examples: one with services as at the existing level; one with the either additional expenditure for patrolling or the purchase of the equipment for additional bankside tree and scrub management; and one with one of those options and the additional electronic signage. Other options and combinations of options can be developed if the Committee favours them.
- 6.2 The figures in the first table show the projected income from the two different fleets and are based on the assumption that the number and size of both private boats and hired motor cruisers will be similar to the current year.

Table 5 Alternative examples of income by fleet

	Projected Income 2017/18	Example 1 +c 1%	Example 2 +c 2.9%	Example 3 +c 3.2%
Navigation Income				
Hire Boat Income	£1,115,861	£1,127,020	£1,148,221	£1,151,569
Private Boat Income	£2,055,000	£2,075,550	£2,114,595	£2,120,760
Other Income	£66,100	£66,498	£67,254	£67,374

Table 6 Alternative examples of income and expendiutre for 2018/19

	Example 1 Draft Budget 2018/19 +1%	Example 2 Draft Budget 2018/19 +2.9%	Example 3 Draft Budget 2018/19 +3.2%
<b>Navigation Income</b>	£3,269,068	£3,330,070	£3,339,702
Expenditure	£3,273,523	£3,331,319	£3,341,719
(Surplus)/ Deficit	£4,455	£1,249	£2,017
Transfer of accrued interest to ear-marked reserves	£3,750	£3,750	£3,750
<b>Opening Reserves</b>	£339,337	£339,337	£339,337
Closing Reserves	£331,132	£334,337	£333,569
Reserves as % of Expenditure	10.1%	10.0%	10.0%

#### 7 **Charges for Categories of Boats**

7.1 Taking the advice of the Tolls Review Group the charges for the different categories of boats have been calculated and are replicated in Table 5 for a 1%, 2.9% and 3.2% increase. They have been rounded up to the nearest whole penny.

**Table 7 Alternative Proposals for Charges for 2018/19** 

### **Commercial Fleet**

Cat	egory	Current Charge	+c. 1%	+c. 2.9%	+c 3.2%
1.	Weekly hired motor craft	£28.95 per m <sup>2</sup>	£29.24	£29.79	£29.88
2.	Weekly hired motor craft Electric	£20.30 per m <sup>2</sup>	£20.51	£20.89	£20.95
3.	Day hired	£44.30 per m2	£44.75	£45.59	£45.72
4.	Day hired Electric	£30.90 per m <sup>2</sup>	£31.21	£31.80	£31.89
5.	MCA Passenger Boats and small passenger boats	£38.10 per m <sup>2</sup>	£38.49	£39.21	£39.32
6.	Motorised Sailing Craft	£23.50 per m <sup>2</sup>	£23.74	£24.19	£24.26
7.	Sailing Boats	£17.50 per m <sup>2</sup>	£17.68	£18.01	£18.06
8.	Houseboats	£14.95 per m <sup>2</sup>	£15.10	£15.39	£15.43
9.	Rowing, canoes etc.	£65.70	£66.36	£67.61	£67.81

### **Private Fleet**

Category	Current Charge	+c. 1%	+c. 2.9%	+c 3.2%
10. Motor Boats - petrol & diesel	£12.85 per m <sup>2</sup>	£12.98	£13.23	£13.27
11. Motor Boats Electric	£10.00 per m <sup>2</sup>	£10.10	£10.29	£10.32
12. Motorised Sailing Craft	£9.50 per m <sup>2</sup>	£9.60	£9.78	£9.81
13. Sailing Boats	£8.00 per m <sup>2</sup>	£8.08	£8.24	£8.26
14. Houseboats	£5.15 per m <sup>2</sup>	£5.21	£5.30	£5.32
15. Rowing, canoes etc.	£32.85	£33.18	£33.81	£33.91

7.2 Appendix 1 contains a schedule showing the implications of the three options for each category and size of boat.

#### 8 **Toll Plaques**

- 8.1 The Authority has worked without requiring the display of an annual tolls receipt (adhesive plaques) for two seasons now. This has proved to be a very positive move, especially now it is backed-up with the Phone App for Rangers which allows for toll and boat safety compliance to be checked very quickly.
- 8.2 It is therefore proposed that we make this a permanent decision and continue to provide a toll receipt in the form of a paper document as we have for the last eighteen months. Display of the paper tolls receipt will not be required. Rangers will be ensuring that all craft display their registration marks as required by the vessel registration byelaws.
- 8.3 Visiting craft will continue to be issued with short visit numbers as this is the only way to identify such craft.

#### 9 **Evaluation and Risk Analysis**

9.1 In April of this year the Authority introduced substantial changes to the structure of the charges which had associated risks. The increase in both private motor boat numbers and the hire boat fleet has put the Authority in a strong financial position and opens up a range of choices for increases in income below the present Retail Price Index of 3.9%. On the basis of current information an across the board rise, broadly in line or below the current rates of inflation, carries few risks in implementation.

#### 10 **Conclusions**

10.1 The Authority is in a good position if it wishes to make some strategic choices about how it responds to the desire of boat owners and the hire boat operators for more patrolling, more tree and scrub clearance adjacent to the waterways, a reduction in speeding, more moorings and additional dredging.

Background papers: None

John Packman, Emma Krelle, Bill Housden Author:

Date of report: 9 October 2017

Broads Plan Objectives: None

Appendices: APPENDIX 1 – Draft charges for 2018/19

# **APPENDIX 1**

# Schedule of Alternative Examples of Charges for 2018/19

Category	y 1 - Weekl	y hired mot	or craft					
Size in Meter <sup>2</sup>	Number of craft (30 Sep 2017)	Toll 2017/18 £	<b>+c. 1%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 2.9%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 3.2%</b> Toll 2018/19	Difference in cash (£) terms
12	12	347.40	350.88	3.48	357.48	10.08	358.56	11.16
13	3	376.35	380.12	3.77	387.27	10.00	388.44	12.09
15	8	434.25	438.60	4.35	446.85	12.60	448.20	13.95
17	1	492.15	497.08	4.93	506.43	14.28	507.96	15.81
18	5	521.10	526.32	5.22	536.22	15.12	537.84	16.74
19	9	550.05	555.56	5.51	566.01	15.96	567.72	17.67
20	14	579.00	584.80	5.80	595.80	16.80	597.60	18.60
21	9	607.95	614.04	6.09	625.59	17.64	627.48	19.53
22	17	636.90	643.28	6.38	655.38	18.48	657.36	20.46
23	9	665.85	672.52	6.67	685.17	19.32	687.24	21.39
24	2	694.80	701.76	6.96	714.96	20.16	717.12	22.32
25	4	723.75	731.00	7.25	744.75	21.00	747.00	23.25
26	7	752.70	760.24	7.54	774.54	21.84	776.88	24.18
27	9	781.65	789.48	7.83	804.33	22.68	806.76	25.11
28	39	810.60	818.72	8.12	834.12	23.52	836.64	26.04
29	12	839.55	847.96	8.41	863.91	24.36	866.52	26.97
30	21	868.50	877.20	8.70	893.70	25.20	896.40	27.90
31	14	897.45	906.44	8.99	923.49	26.04	926.28	28.83
32	11	926.40	935.68	9.28	953.28	26.88	956.16	29.76
33	18	955.35	964.92	9.57	983.07	27.72	986.04	30.69
34	16	984.30	994.16	9.86	1012.86	28.56	1015.92	31.62
35	24	1013.25	1023.40	10.15	1042.65	29.40	1045.80	32.55
36	20	1042.20	1052.64	10.44	1072.44	30.24	1075.68	33.48
37	72	1071.15	1081.88	10.73	1102.23	31.08	1105.56	34.41
38	59	1100.10	1111.12	11.02	1132.02	31.92	1135.44	35.34
39	30	1129.05	1140.36	11.31	1161.81	32.76	1165.32	36.27
40	20	1158.00	1169.60	11.60	1191.60	33.60	1195.20	37.20
41	20	1186.95	1198.84	11.89	1221.39	34.44	1225.08	38.13
42	24	1215.90	1228.08	12.18	1251.18	35.28	1254.96	39.06
43	19	1244.85	1257.32	12.47	1280.97	36.12	1284.84	39.99
44	56	1273.80	1286.56	12.76	1310.76	36.96	1314.72	40.92
45	10	1302.75	1315.80	13.05	1340.55	37.80	1344.60	41.85
46	53	1331.70	1345.04	13.34	1370.34	38.64	1374.48	42.78

47	11	1360.65	1374.28	13.63	1400.13	39.48	1404.36	43.71
48	60	1389.60	1403.52	13.92	1429.92	40.32	1434.24	44.64
49	5	1418.55	1432.76	14.21	1459.71	41.16	1464.12	45.57
50	31	1447.50	1462.00	14.50	1489.50	42.00	1494.00	46.50
51	16	1476.45	1491.24	14.79	1519.29	42.84	1523.88	47.43
52	22	1505.40	1520.48	15.08	1549.08	43.68	1553.76	48.36
54	4	1563.30	1578.96	15.66	1608.66	45.36	1613.52	50.22
56	1	1621.20	1637.44	16.24	1668.24	47.04	1673.28	52.08

Category 2 - Weekly hired motor craft electric										
Size in Meter <sup>2</sup>	Number of craft (30 Sep 2017)	Toll 2017/18 £	<b>+c. 1%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 2.9%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 3.2%</b> Toll 2018/19	Difference in cash (£) terms		
40	1	812.00	820.40	8.40	835.6	23.60	838.00	26.00		
41	1	832.30	840.91	8.61	856.49	24.19	858.95	26.65		
48	3	974.40	984.48	10.08	1002.72	28.32	1005.60	31.20		

Category	y 3 - Day hii	red boats						
Size in Meter <sup>2</sup>	Number of craft (30 Sep 2017)	Toll 2017/18 £	<b>+c. 1%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 2.9%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 3.2%</b> Toll 2018/19	Difference in cash (£) terms
5	4	221.50	223.75	2.25	227.95	6.45	228.60	7.10
6	3	265.80	268.50	2.70	273.54	7.74	274.32	8.52
7	5	310.10	313.25	3.15	319.13	9.03	320.04	9.94
8	17	354.40	358.00	3.60	364.72	10.32	365.76	11.36
9	28	398.70	402.75	4.05	410.31	11.61	411.48	12.78
10	43	443.00	447.50	4.50	455.90	12.90	457.20	14.20
11	50	487.30	492.25	4.95	501.49	14.19	502.92	15.62
12	72	531.60	537.00	5.40	547.08	15.48	548.64	17.04
13	14	575.90	581.75	5.85	592.67	16.77	594.36	18.46
14	7	620.20	626.50	6.30	638.26	18.06	640.08	19.88
15	6	664.50	671.25	6.75	683.85	19.35	685.80	21.30
16	3	708.80	716.00	7.20	729.44	20.64	731.52	22.72
17	1	753.10	760.75	7.65	775.03	21.93	777.24	24.14
21	2	930.30	939.75	9.45	957.39	27.09	960.12	29.82

Category 4 -	Day hired	d electric	boats
--------------	-----------	------------	-------

Size in Meter <sup>2</sup>	Number of craft	Toll 2017/18 £	<b>+c. 1%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 2.9%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 3.2%</b> Toll 2018/19	Difference in cash (£) terms
7	3	216.30	218.47	2.17	222.60	6.30	223.23	6.93
9	2	278.10	280.89	2.79	286.20	8.10	287.01	8.91
10	12	309.00	312.10	3.10	318.00	9.00	318.90	9.90
11	11	339.90	343.31	3.41	349.80	9.90	350.79	10.89
12	6	370.80	374.52	3.72	381.60	10.80	382.68	11.88
14	4	432.60	436.94	4.34	445.20	12.60	446.46	13.86
15	6	463.50	468.15	4.65	477.00	13.50	478.35	14.85

Category 5 - MCA passenger boats and small passenger boats
--

Size in Meter <sup>2</sup>	Number of craft (30 Sep 2017)	Toll 2017/18 £	<b>+c. 1%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 2.9%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 3.2%</b> Toll 2018/19	Difference in cash (£) terms
5	1	190.50	192.45	1.95	196.05	5.55	196.60	6.10
8	1	304.80	307.92	3.12	313.68	8.88	314.56	9.76
9	2	342.90	346.41	3.51	352.89	9.99	353.88	10.98
18	1	685.80	692.82	7.02	705.78	19.98	707.76	21.96
23	1	876.30	885.27	8.97	901.83	25.53	904.36	28.06
72	2	2743.20	2771.28	28.08	2823.12	79.92	2831.04	87.84
84	1	3200.40	3233.16	32.76	3293.64	93.24	3302.88	102.48
89	2	3390.90	3425.61	34.71	3489.69	98.79	3499.48	108.58
98	1	3733.80	3772.02	38.22	3842.58	108.78	3853.36	119.56

# Category 6 - Motorised Sailing craft for hire

Size in Meter <sup>2</sup>	Number of craft (30 Sep 2017)	Toll 2017/18 £	<b>+c. 1%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 2.9%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 3.2%</b> Toll 2018/19	Difference in cash (£) terms
13	1	305.50	308.62	3.12	314.47	8.97	315.38	9.88
15	1	352.50	356.10	3.60	362.85	10.35	363.90	11.40
16	3	376.00	379.84	3.84	387.04	11.04	388.16	12.16
17	1	399.50	403.58	4.08	411.23	11.73	412.42	12.92
18	3	423.00	427.32	4.32	435.42	12.42	436.68	13.68
21	5	493.50	498.54	5.04	507.99	14.49	509.46	15.96

22	1	517.00	522.28	5.28	532.18	15.18	533.72	16.72
23	4	540.50	546.02	5.52	556.37	15.87	557.98	17.48
24	3	564.00	569.76	5.76	580.56	16.56	582.24	18.24
25	9	587.50	593.50	6.00	604.75	17.25	606.50	19.00
26	8	611.00	617.24	6.24	628.94	17.94	630.76	19.76
29	1	681.50	688.46	6.96	701.51	20.01	703.54	22.04
30	2	705.00	712.20	7.20	725.70	20.70	727.80	22.80
34	1	799.00	807.16	8.16	822.46	23.46	824.84	25.84
35	2	822.50	830.90	8.40	846.65	24.15	849.10	26.60

Category	y 7 - Sailing	j boats for l	nire					
Size in Meter <sup>2</sup>	Number of craft (30 Sep 2017)	Toll 2017/18 £	<b>+c. 1%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 2.9%</b> Toll 2018/19	Difference in cash (£) terms	+c. 3.2% Toll 2018/19	Difference in cash (£) terms
5	68	87.5	88.4	0.90	90.05	2.55	90.30	2.80
6	1	105.00	106.08	1.08	108.06	3.06	108.36	3.36
7	1	122.50	123.76	1.26	126.07	3.57	126.42	3.92
8	1	140.00	141.44	1.44	144.08	4.08	144.48	4.48
10	4	175.00	176.80	1.80	180.10	5.10	180.60	5.60
11	10	192.50	194.48	1.98	198.11	5.61	198.66	6.16
14	2	245.00	247.52	2.52	252.14	7.14	252.84	7.84
16	10	280.00	282.88	2.88	288.16	8.16	288.96	8.96
22	4	385.00	388.96	3.96	396.22	11.22	397.32	12.32

Category 8 - Houseboats for hire										
Size in Meter <sup>2</sup>	Number of craft (30 Sep 2017)	Toll 2017/18 £	<b>+c. 1%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 2.9%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 3.2%</b> Toll 2018/19	Difference in cash (£) terms		
22	1	328.90	332.20	3.30	338.58	9.68	339.46	10.56		
23	2	343.85	347.30	3.45	353.97	10.12	354.89	11.04		
24	1	358.80	362.40	3.60	369.36	10.56	370.32	11.52		
28	2	418.60	422.80	4.20	430.92	12.32	432.04	13.44		
29	2	433.55	437.90	4.35	446.31	12.76	447.47	13.92		
31	1	463.45	468.10	4.65	477.09	13.64	478.33	14.88		
34	1	508.30	513.40	5.10	523.26	14.96	524.62	16.32		
35	2	523.25	528.50	5.25	538.65	15.40	540.05	16.80		
36	5	538.20	543.60	5.40	554.04	15.84	555.48	17.28		
39	3	583.05	588.90	5.85	600.21	17.16	601.77	18.72		

40	2	598.00	604.00	6.00	615.60	17.60	617.20	19.20
41	1	612.95	619.10	6.15	630.99	18.04	632.63	19.68
43	4	642.85	649.30	6.45	661.77	18.92	663.49	20.64
176	1	2631.20	2657.60	26.40	2708.64	77.44	2715.68	84.48

Category 9 - Rowing boats, canoes etc. for hire									
Size in Meter <sup>2</sup>	Number of craft (30 Sep 2017)	Toll 2017/18 £	<b>+c. 1%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 2.9%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 3.2%</b> Toll 2018/19	Difference in cash (£) terms	
All	191	65.70	66.36	0.66	67.61	1.91	67.81	2.11	

Category 10 - Private motor boats											
Size in	Number	Toll	+c. 1%	Difference	+c. 2.9%	Difference	+c. 3.2%	Difference			
Meter <sup>2</sup>	of craft	2017/18	Toll	in cash (£)	Toll	in cash (£)	Toll	in cash (£)			
IVICICI	(30 Sep 2017)	£	2018/19	terms	2018/19	terms	2018/19	terms			
5	735	64.25	64.90	0.65	66.15	1.90	66.35	2.10			
6	239	77.10	77.88	0.78	79.38	2.28	79.62	2.52			
7	173	89.95	90.86	0.91	92.61	2.66	92.89	2.94			
8	147	102.80	103.84	1.04	105.84	3.04	106.16	3.36			
9	142	115.65	116.82	1.17	119.07	3.42	119.43	3.78			
10	173	128.50	129.80	1.30	132.30	3.80	132.70	4.20			
11	242	141.35	142.78	1.43	145.53	4.18	145.97	4.62			
12	257	154.20	155.76	1.56	158.76	4.56	159.24	5.04			
13	163	167.05	168.74	1.69	171.99	4.94	172.51	5.46			
14	200	179.90	181.72	1.82	185.22	5.32	185.78	5.88			
15	255	192.75	194.70	1.95	198.45	5.70	199.05	6.30			
16	218	205.60	207.68	2.08	211.68	6.08	212.32	6.72			
17	124	218.45	220.66	2.21	224.91	6.46	225.59	7.14			
18	156	231.30	233.64	2.34	238.14	6.84	238.86	7.56			
19	108	244.15	246.62	2.47	251.37	7.22	252.13	7.98			
20	142	257.00	259.60	2.60	264.60	7.60	265.40	8.40			
21	191	269.85	272.58	2.73	277.83	7.98	278.67	8.82			
22	338	282.70	285.56	2.86	291.06	8.36	291.94	9.24			
23	246	295.55	298.54	2.99	304.29	8.74	305.21	9.66			
24	96	308.40	311.52	3.12	317.52	9.12	318.48	10.08			
25	85	321.25	324.50	3.25	330.75	9.50	331.75	10.50			
26	95	334.10	337.48	3.38	343.98	9.88	345.02	10.92			
27	125	346.95	350.46	3.51	357.21	10.26	358.29	11.34			
28	187	359.80	363.44	3.64	370.44	10.64	371.56	11.76			

29         128         372 65         376 42         3.77         383 67         11.02         384 83         12.18           30         110         385.50         389.40         3.90         396.90         11.40         398.10         12.60           31         90         398.35         402.38         4.03         410.13         11.78         441.37         13.02           32         69         411.20         415.36         4.16         423.36         12.16         424.64         13.44           33         111         424.05         428.34         4.29         436.59         12.54         437.91         13.86           34         97         436.90         441.32         4.42         449.82         12.92         451.18         14.28           35         106         449.75         454.30         4.55         463.05         13.30         464.45         14.70           36         60         462.60         467.28         4.68         476.28         13.30         464.45         14.70           37         93         475.45         480.26         4.81         493.51         14.44         504.26         15.26           38									
31         90         398.35         402.38         4.03         410.13         11.78         411.37         13.02           32         69         411.20         415.36         4.16         423.36         12.16         424.64         13.44           33         1111         424.05         428.34         4.29         436.59         12.54         437.91         13.86           34         97         436.90         441.32         4.42         449.92         12.92         451.18         14.28           35         106         449.75         454.30         4.55         463.05         13.30         464.45         14.70           36         60         462.60         467.28         4.68         476.28         13.68         477.72         15.94           37         93         475.45         480.26         4.81         489.51         14.06         490.99         15.54           38         113         488.30         493.24         4.94         502.74         14.44         504.26         15.96           39         76         501.15         506.22         507         515.97         14.82         517.53         16.38           40	29	128	372.65	376.42	3.77	383.67	11.02	384.83	12.18
32         69         411.20         415.36         4.16         423.36         12.16         424.64         13.44           33         111         424.05         428.34         4.29         436.69         12.54         437.91         13.86           34         97         436.90         441.32         4.42         449.82         12.92         451.18         14.28           35         106         449.75         454.30         4.55         463.05         13.30         464.45         14.70           36         60         462.60         467.28         4.68         476.28         13.68         477.72         15.12           37         93         475.45         480.26         4.81         489.51         14.04         490.99         15.54           38         113         488.30         493.24         4.94         502.74         14.44         504.26         15.96           39         76         501.15         506.22         5.07         515.97         14.82         517.53         16.38           41         86         526.85         532.18         5.33         542.43         15.58         544.07         17.22           42	30	110	385.50	389.40	3.90	396.90	11.40	398.10	12.60
33         1111         424.05         428.34         4.29         436.59         12.54         437.91         13.86           34         97         436.90         4441.32         4.42         449.02         12.92         451.18         14.28           35         106         449.75         454.30         4.55         463.05         13.30         464.45         14.70           36         60         462.60         467.28         4.68         476.28         13.68         477.72         15.12           37         93         475.45         480.26         4.81         489.51         14.06         490.99         15.54           38         113         488.30         493.24         4.94         502.79         14.44         504.26         15.93           40         67         514.00         519.20         520         529.20         15.20         530.80         16.80           41         86         526.85         532.18         5.33         542.43         15.58         544.07         17.24           42         71         539.70         545.16         5.46         555.66         15.96         557.01         15.96         559.84         15.94 </td <td>31</td> <td>90</td> <td>398.35</td> <td>402.38</td> <td>4.03</td> <td>410.13</td> <td>11.78</td> <td>411.37</td> <td>13.02</td>	31	90	398.35	402.38	4.03	410.13	11.78	411.37	13.02
34         97         436.90         441.32         4.42         449.82         12.92         451.18         14.28           35         106         449.75         454.30         4.55         463.05         13.30         464.45         14.70           36         60         462.60         467.28         4.68         476.28         13.68         477.72         15.12           37         93         475.45         480.26         4.81         489.51         14.06         490.99         15.54           38         113         488.30         493.24         4.94         502.74         14.44         504.26         15.96           39         76         501.15         506.22         5.07         515.97         14.82         517.53         16.38           40         67         514.00         519.20         529.20         15.20         520.80         568.00         517.53         16.38           41         86         526.85         532.18         5.33         542.43         15.56         544.07         17.22           42         71         539.70         545.16         5.56         655.66         15.96         557.34         17.64	32	69	411.20	415.36	4.16	423.36	12.16	424.64	13.44
35         106         449.75         454.30         4.55         463.05         13.30         464.45         14.70           36         60         462.60         467.28         4.68         476.28         13.68         477.72         15.12           37         93         475.45         480.26         4.81         489.51         14.06         490.99         15.54           38         113         488.30         493.24         4.94         502.74         14.44         504.26         15.96           39         76         501.15         506.22         5.07         515.97         14.82         517.53         16.38           40         67         514.00         519.20         52.0         529.20         15.20         530.80         18.80           41         86         526.85         532.18         5.33         542.43         15.58         544.07         17.22           42         71         539.70         545.16         5.46         655.66         15.96         557.34         17.64           43         37         552.55         558.14         5.59         568.89         16.34         570.61         18.06           44	33	111	424.05	428.34	4.29	436.59	12.54	437.91	13.86
36         60         462.60         467.28         4.68         476.28         13.68         477.72         15.12           37         93         475.45         480.26         4.81         489.51         14.06         490.99         15.54           38         113         488.30         493.24         4.94         502.74         14.44         504.26         15.96           39         76         501.15         506.22         5.07         515.97         14.82         517.53         16.38           40         67         514.00         519.20         5.20         529.20         15.20         530.80         16.80           41         86         526.85         532.18         5.33         542.43         15.58         544.07         17.22           42         71         539.70         545.16         5.46         555.66         15.96         557.34         17.64           43         37         552.55         558.14         5.59         568.89         16.34         570.61         18.06           44         24         565.40         571.12         5.72         582.12         16.72         583.88         18.48           45	34	97	436.90	441.32	4.42	449.82	12.92	451.18	14.28
37         93         475.45         480.26         4.81         489.51         14.06         490.99         15.54           38         113         488.30         493.24         4.94         502.74         14.44         504.26         15.96           39         76         501.15         506.22         5.07         515.97         14.82         517.53         16.38           40         67         514.00         519.20         5.20         529.20         15.20         530.80         16.80           41         86         526.85         532.18         5.33         542.43         15.58         544.07         17.22           42         71         539.70         545.16         5.46         555.66         15.96         557.34         17.64           43         37         552.55         558.14         5.59         568.89         16.34         570.61         18.06           44         24         565.40         571.12         5.72         582.12         16.72         583.88         18.48           45         11         578.25         584.10         5.85         595.35         17.10         597.15         18.90           46	35	106	449.75	454.30	4.55	463.05	13.30	464.45	14.70
38         113         488.30         493.24         4.94         502.74         14.44         504.26         15.96           39         76         501.15         506.22         5.07         515.97         14.82         517.53         16.38           40         67         514.00         519.20         5.20         529.20         15.20         530.80         16.80           41         86         526.85         532.18         5.33         542.43         15.58         544.07         17.22           42         71         539.70         545.16         5.46         555.66         15.96         557.34         17.64           43         37         552.55         558.14         5.59         568.89         16.34         570.61         18.06           44         24         566.40         571.12         5.72         582.12         16.72         583.88         18.48           45         11         576.25         584.10         5.85         595.35         17.10         597.16         18.06           45         11         576.26         582.12         16.72         583.88         18.48           45         11         566.30         <	36	60	462.60	467.28	4.68	476.28	13.68	477.72	15.12
39         76         501.15         506.22         5.07         515.97         14.82         517.53         16.38           40         67         514.00         519.20         5.20         529.20         15.20         530.80         16.80           41         86         526.85         532.18         5.33         542.43         15.58         544.07         17.22           42         71         539.70         545.16         5.46         555.66         15.96         557.34         17.64           43         37         552.55         558.14         5.59         568.89         16.34         570.61         18.06           44         24         565.40         571.12         5.72         582.12         16.72         583.88         18.48           45         11         578.25         584.10         5.85         595.35         17.10         597.15         18.90           46         61         591.10         597.08         5.98         608.58         17.48         610.42         19.34           47         24         603.95         610.06         6.11         621.81         17.86         610.42         19.71         19.24	37	93	475.45	480.26	4.81	489.51	14.06	490.99	15.54
40         67         514.00         519.20         5.20         529.20         15.20         530.80         16.80           41         86         526.85         532.18         5.33         542.43         15.58         544.07         17.22           42         71         539.70         545.16         5.46         555.66         15.96         557.34         17.64           43         37         552.55         558.14         5.59         568.89         16.34         570.61         18.06           44         24         565.40         571.12         5.72         582.12         16.72         583.88         18.48           45         11         578.25         584.10         5.85         595.35         17.10         597.15         18.90           46         61         591.10         597.08         5.98         608.58         17.48         610.42         19.32           47         24         603.95         610.06         6.11         621.81         17.86         623.69         19.76           48         24         616.80         623.04         6.24         635.04         18.24         636.96         20.16           49	38	113	488.30	493.24	4.94	502.74	14.44	504.26	15.96
41         86         526.85         532.18         5.33         542.43         15.58         544.07         17.22           42         71         539.70         545.16         5.46         555.66         15.96         557.34         17.64           43         37         552.55         558.14         5.59         568.89         16.34         570.61         18.06           44         24         565.40         571.12         5.72         582.12         16.72         583.88         18.48           45         11         578.25         584.10         5.85         595.35         17.10         597.15         18.90           46         61         591.10         597.08         5.98         608.58         17.48         610.42         19.32           47         24         603.95         610.06         6.11         621.81         17.86         623.69         19.74           48         24         616.80         623.04         6.24         635.04         18.24         636.96         20.16           49         22         629.65         636.02         6.37         648.27         18.62         650.23         20.58           50	39	76	501.15	506.22	5.07	515.97	14.82	517.53	16.38
42         71         539.70         545.16         5.46         555.66         15.96         557.34         17.64           43         37         552.55         558.14         5.59         568.89         16.34         570.61         18.06           44         24         565.40         571.12         5.72         582.12         16.72         583.88         18.48           45         11         578.25         584.10         5.85         595.35         17.10         697.15         18.90           46         61         591.10         597.08         5.98         608.58         17.48         610.42         19.32           47         24         603.95         610.06         6.11         621.81         17.86         623.69         19.74           48         24         616.80         623.04         6.24         635.04         18.24         636.96         20.16           49         22         629.65         636.02         6.37         648.27         18.62         650.23         20.58           50         10         642.50         649.00         6.50         661.50         19.00         663.50         21.00           51	40	67	514.00	519.20	5.20	529.20	15.20	530.80	16.80
43         37         552.55         558.14         5.59         568.89         16.34         570.61         18.06           44         24         565.40         571.12         5.72         582.12         16.72         583.88         18.48           45         11         578.25         584.10         5.85         595.35         17.10         597.15         18.90           46         61         591.10         597.08         5.98         608.58         17.48         610.42         19.32           47         24         603.95         610.06         6.11         621.81         17.86         636.69         19.74           48         24         616.80         623.04         6.24         635.04         18.24         636.96         20.16           49         22         629.65         636.02         6.37         648.27         18.62         650.23         20.58           50         10         642.50         649.00         6.50         661.50         19.00         663.50         21.00           51         8         655.35         661.98         6.63         674.73         19.38         676.77         21.42           52         <	41	86	526.85	532.18	5.33	542.43	15.58	544.07	17.22
44         24         565.40         571.12         5.72         582.12         16.72         583.88         18.48           45         11         578.25         584.10         5.85         595.35         17.10         597.15         18.90           46         61         591.10         597.08         5.98         608.58         17.48         610.42         19.32           47         24         603.95         610.06         6.11         621.81         17.86         623.69         19.74           48         24         616.80         623.04         6.24         635.04         18.24         636.96         20.16           49         22         629.65         636.02         6.37         648.27         18.62         650.23         20.58           50         10         642.50         649.00         6.50         661.50         19.00         663.50         21.00           51         8         655.35         661.98         6.63         674.73         19.38         676.77         21.42           52         16         668.20         674.96         6.76         687.96         19.76         690.04         21.84           53         <	42	71	539.70	545.16	5.46	555.66	15.96	557.34	17.64
45         11         578.25         584.10         5.85         595.35         17.10         597.15         18.90           46         61         591.10         597.08         5.98         608.58         17.48         610.42         19.32           47         24         603.95         610.06         6.11         621.81         17.86         623.69         19.74           48         24         616.80         623.04         6.24         635.04         18.24         636.96         20.16           49         22         629.65         636.02         6.37         648.27         18.62         650.23         20.58           50         10         642.50         649.00         6.50         661.50         19.00         663.50         21.00           51         8         655.35         661.98         6.63         674.73         19.38         676.77         21.42           52         16         688.20         674.96         6.76         687.96         19.76         690.04         21.84           53         4         681.05         687.94         6.89         701.19         20.14         703.31         22.26           54 <t< td=""><td>43</td><td>37</td><td>552.55</td><td>558.14</td><td>5.59</td><td>568.89</td><td>16.34</td><td>570.61</td><td>18.06</td></t<>	43	37	552.55	558.14	5.59	568.89	16.34	570.61	18.06
46         61         591.10         597.08         5.98         608.58         17.48         610.42         19.32           47         24         603.95         610.06         6.11         621.81         17.86         623.69         19.74           48         24         616.80         623.04         6.24         635.04         18.24         636.96         20.16           49         22         629.65         636.02         6.37         648.27         18.62         650.23         20.58           50         10         642.50         649.00         6.50         661.50         19.00         663.50         21.00           51         8         655.35         661.98         6.63         674.73         19.38         676.77         21.42           52         16         668.20         674.96         6.76         687.96         19.76         690.04         21.84           53         4         681.05         687.94         6.89         701.19         20.14         703.31         22.26           54         14         693.90         700.92         7.02         714.42         20.52         716.58         22.68           55 <t< td=""><td>44</td><td>24</td><td>565.40</td><td>571.12</td><td>5.72</td><td>582.12</td><td>16.72</td><td>583.88</td><td>18.48</td></t<>	44	24	565.40	571.12	5.72	582.12	16.72	583.88	18.48
47         24         603.95         610.06         6.11         621.81         17.86         623.69         19.74           48         24         616.80         623.04         6.24         635.04         18.24         636.96         20.16           49         22         629.65         636.02         6.37         648.27         18.62         650.23         20.58           50         10         642.50         649.00         6.50         661.50         19.00         663.50         21.00           51         8         655.35         661.98         6.63         674.73         19.38         676.77         21.42           52         16         668.20         674.96         6.76         687.96         19.76         690.04         21.84           53         4         681.05         687.94         6.89         701.19         20.14         703.31         22.26           54         14         693.90         700.92         7.02         714.42         20.52         716.58         22.68           55         11         706.75         713.90         7.15         727.65         20.90         729.85         23.10           56 <t< td=""><td>45</td><td>11</td><td>578.25</td><td>584.10</td><td>5.85</td><td>595.35</td><td>17.10</td><td>597.15</td><td>18.90</td></t<>	45	11	578.25	584.10	5.85	595.35	17.10	597.15	18.90
48         24         616.80         623.04         6.24         635.04         18.24         636.96         20.16           49         22         629.65         636.02         6.37         648.27         18.62         650.23         20.58           50         10         642.50         649.00         6.50         661.50         19.00         663.50         21.00           51         8         655.35         661.98         6.63         674.73         19.38         676.77         21.42           52         16         668.20         674.96         6.76         687.96         19.76         690.04         21.84           53         4         681.05         687.94         6.89         701.19         20.14         703.31         22.26           54         14         693.90         709.92         7.02         714.42         20.52         716.58         22.68           55         11         706.75         713.90         7.15         727.65         20.90         729.85         23.10           56         1         719.60         726.88         7.28         740.88         21.28         743.12         23.52           57 <td< td=""><td>46</td><td>61</td><td>591.10</td><td>597.08</td><td>5.98</td><td>608.58</td><td>17.48</td><td>610.42</td><td>19.32</td></td<>	46	61	591.10	597.08	5.98	608.58	17.48	610.42	19.32
49         22         629.65         636.02         6.37         648.27         18.62         650.23         20.58           50         10         642.50         649.00         6.50         661.50         19.00         663.50         21.00           51         8         655.35         661.98         6.63         674.73         19.38         676.77         21.42           52         16         668.20         674.96         6.76         687.96         19.76         690.04         21.84           53         4         681.05         687.94         6.89         701.19         20.14         703.31         22.26           54         14         693.90         700.92         7.02         714.42         20.52         716.58         22.68           55         11         706.75         713.90         7.15         727.65         20.90         729.85         23.10           56         1         719.60         726.88         7.28         740.88         21.28         743.12         23.52           57         3         732.45         739.86         7.41         754.11         21.66         756.39         23.94           59	47	24	603.95	610.06	6.11	621.81	17.86	623.69	19.74
50         10         642.50         649.00         6.50         661.50         19.00         663.50         21.00           51         8         655.35         661.98         6.63         674.73         19.38         676.77         21.42           52         16         668.20         674.96         6.76         687.96         19.76         690.04         21.84           53         4         681.05         687.94         6.89         701.19         20.14         703.31         22.26           54         14         693.90         700.92         7.02         714.42         20.52         716.58         22.68           55         11         706.75         713.90         7.15         727.65         20.90         729.85         23.10           56         1         719.60         726.88         7.28         740.88         21.28         743.12         23.52           57         3         732.45         739.86         7.41         754.11         21.66         756.39         23.94           59         1         758.15         765.82         7.67         780.57         22.42         782.93         24.78           60         5	48	24	616.80	623.04	6.24	635.04	18.24	636.96	20.16
51         8         655.35         661.98         6.63         674.73         19.38         676.77         21.42           52         16         668.20         674.96         6.76         687.96         19.76         690.04         21.84           53         4         681.05         687.94         6.89         701.19         20.14         703.31         22.26           54         14         693.90         700.92         7.02         714.42         20.52         716.58         22.68           55         11         706.75         713.90         7.15         727.65         20.90         729.85         23.10           56         1         719.60         726.88         7.28         740.88         21.28         743.12         23.52           57         3         732.45         739.86         7.41         754.11         21.66         756.39         23.94           59         1         758.15         765.82         7.67         780.57         22.42         782.93         24.78           60         5         771.00         778.80         7.80         793.80         22.80         796.20         25.20           61         1<	49	22	629.65	636.02	6.37	648.27	18.62	650.23	20.58
52         16         668.20         674.96         6.76         687.96         19.76         690.04         21.84           53         4         681.05         687.94         6.89         701.19         20.14         703.31         22.26           54         14         693.90         700.92         7.02         714.42         20.52         716.58         22.68           55         11         706.75         713.90         7.15         727.65         20.90         729.85         23.10           56         1         719.60         726.88         7.28         740.88         21.28         743.12         23.52           57         3         732.45         739.86         7.41         754.11         21.66         756.39         23.94           59         1         758.15         765.82         7.67         780.57         22.42         782.93         24.78           60         5         771.00         778.80         7.80         793.80         22.80         796.20         25.20           61         1         783.85         791.78         7.93         807.03         23.18         809.47         25.62           62         3<	50	10	642.50	649.00	6.50	661.50	19.00	663.50	21.00
53         4         681.05         687.94         6.89         701.19         20.14         703.31         22.26           54         14         693.90         700.92         7.02         714.42         20.52         716.58         22.68           55         11         706.75         713.90         7.15         727.65         20.90         729.85         23.10           56         1         719.60         726.88         7.28         740.88         21.28         743.12         23.52           57         3         732.45         739.86         7.41         754.11         21.66         756.39         23.94           59         1         758.15         765.82         7.67         780.57         22.42         782.93         24.78           60         5         771.00         778.80         7.80         793.80         22.80         796.20         25.20           61         1         783.85         791.78         7.93         807.03         23.18         809.47         25.62           62         3         796.70         804.76         8.06         820.26         23.56         822.74         26.04           63         4 </td <td>51</td> <td>8</td> <td>655.35</td> <td>661.98</td> <td>6.63</td> <td>674.73</td> <td>19.38</td> <td>676.77</td> <td>21.42</td>	51	8	655.35	661.98	6.63	674.73	19.38	676.77	21.42
54         14         693.90         700.92         7.02         714.42         20.52         716.58         22.68           55         11         706.75         713.90         7.15         727.65         20.90         729.85         23.10           56         1         719.60         726.88         7.28         740.88         21.28         743.12         23.52           57         3         732.45         739.86         7.41         754.11         21.66         756.39         23.94           59         1         758.15         765.82         7.67         780.57         22.42         782.93         24.78           60         5         771.00         778.80         7.80         793.80         22.80         796.20         25.20           61         1         783.85         791.78         7.93         807.03         23.18         809.47         25.62           62         3         796.70         804.76         8.06         820.26         23.56         822.74         26.04           63         4         809.55         817.74         8.19         833.49         23.94         836.01         26.46           64         1 </td <td>52</td> <td>16</td> <td>668.20</td> <td>674.96</td> <td>6.76</td> <td>687.96</td> <td>19.76</td> <td>690.04</td> <td>21.84</td>	52	16	668.20	674.96	6.76	687.96	19.76	690.04	21.84
55         11         706.75         713.90         7.15         727.65         20.90         729.85         23.10           56         1         719.60         726.88         7.28         740.88         21.28         743.12         23.52           57         3         732.45         739.86         7.41         754.11         21.66         756.39         23.94           59         1         758.15         765.82         7.67         780.57         22.42         782.93         24.78           60         5         771.00         778.80         7.80         793.80         22.80         796.20         25.20           61         1         783.85         791.78         7.93         807.03         23.18         809.47         25.62           62         3         796.70         804.76         8.06         820.26         23.56         822.74         26.04           63         4         809.55         817.74         8.19         833.49         23.94         836.01         26.46           64         1         822.40         830.72         8.32         846.72         24.32         849.28         26.88           67         1 <td>53</td> <td>4</td> <td>681.05</td> <td>687.94</td> <td>6.89</td> <td>701.19</td> <td>20.14</td> <td>703.31</td> <td>22.26</td>	53	4	681.05	687.94	6.89	701.19	20.14	703.31	22.26
56         1         719.60         726.88         7.28         740.88         21.28         743.12         23.52           57         3         732.45         739.86         7.41         754.11         21.66         756.39         23.94           59         1         758.15         765.82         7.67         780.57         22.42         782.93         24.78           60         5         771.00         778.80         7.80         793.80         22.80         796.20         25.20           61         1         783.85         791.78         7.93         807.03         23.18         809.47         25.62           62         3         796.70         804.76         8.06         820.26         23.56         822.74         26.04           63         4         809.55         817.74         8.19         833.49         23.94         836.01         26.46           64         1         822.40         830.72         8.32         846.72         24.32         849.28         26.88           67         1         860.95         869.66         8.71         886.41         25.46         889.09         28.14           69         2 <td>54</td> <td>14</td> <td>693.90</td> <td>700.92</td> <td>7.02</td> <td>714.42</td> <td>20.52</td> <td>716.58</td> <td>22.68</td>	54	14	693.90	700.92	7.02	714.42	20.52	716.58	22.68
57         3         732.45         739.86         7.41         754.11         21.66         756.39         23.94           59         1         758.15         765.82         7.67         780.57         22.42         782.93         24.78           60         5         771.00         778.80         7.80         793.80         22.80         796.20         25.20           61         1         783.85         791.78         7.93         807.03         23.18         809.47         25.62           62         3         796.70         804.76         8.06         820.26         23.56         822.74         26.04           63         4         809.55         817.74         8.19         833.49         23.94         836.01         26.46           64         1         822.40         830.72         8.32         846.72         24.32         849.28         26.88           67         1         860.95         869.66         8.71         886.41         25.46         889.09         28.14           69         2         886.65         895.62         8.97         912.87         26.22         915.63         28.98           70         2 <td>55</td> <td>11</td> <td>706.75</td> <td>713.90</td> <td>7.15</td> <td>727.65</td> <td>20.90</td> <td>729.85</td> <td>23.10</td>	55	11	706.75	713.90	7.15	727.65	20.90	729.85	23.10
59         1         758.15         765.82         7.67         780.57         22.42         782.93         24.78           60         5         771.00         778.80         7.80         793.80         22.80         796.20         25.20           61         1         783.85         791.78         7.93         807.03         23.18         809.47         25.62           62         3         796.70         804.76         8.06         820.26         23.56         822.74         26.04           63         4         809.55         817.74         8.19         833.49         23.94         836.01         26.46           64         1         822.40         830.72         8.32         846.72         24.32         849.28         26.88           67         1         860.95         869.66         8.71         886.41         25.46         889.09         28.14           69         2         886.65         895.62         8.97         912.87         26.22         915.63         28.98           70         2         899.50         908.60         9.10         926.10         26.60         928.90         29.40           71         1 <td>56</td> <td>1</td> <td>719.60</td> <td>726.88</td> <td>7.28</td> <td>740.88</td> <td>21.28</td> <td>743.12</td> <td>23.52</td>	56	1	719.60	726.88	7.28	740.88	21.28	743.12	23.52
60         5         771.00         778.80         7.80         793.80         22.80         796.20         25.20           61         1         783.85         791.78         7.93         807.03         23.18         809.47         25.62           62         3         796.70         804.76         8.06         820.26         23.56         822.74         26.04           63         4         809.55         817.74         8.19         833.49         23.94         836.01         26.46           64         1         822.40         830.72         8.32         846.72         24.32         849.28         26.88           67         1         860.95         869.66         8.71         886.41         25.46         889.09         28.14           69         2         886.65         895.62         8.97         912.87         26.22         915.63         28.98           70         2         899.50         908.60         9.10         926.10         26.60         928.90         29.40           71         1         912.35         921.58         9.23         939.33         26.98         942.17         29.82           72         1 <td>57</td> <td>3</td> <td>732.45</td> <td>739.86</td> <td>7.41</td> <td>754.11</td> <td>21.66</td> <td>756.39</td> <td>23.94</td>	57	3	732.45	739.86	7.41	754.11	21.66	756.39	23.94
61         1         783.85         791.78         7.93         807.03         23.18         809.47         25.62           62         3         796.70         804.76         8.06         820.26         23.56         822.74         26.04           63         4         809.55         817.74         8.19         833.49         23.94         836.01         26.46           64         1         822.40         830.72         8.32         846.72         24.32         849.28         26.88           67         1         860.95         869.66         8.71         886.41         25.46         889.09         28.14           69         2         886.65         895.62         8.97         912.87         26.22         915.63         28.98           70         2         899.50         908.60         9.10         926.10         26.60         928.90         29.40           71         1         912.35         921.58         9.23         939.33         26.98         942.17         29.82           72         1         925.20         934.56         9.36         952.56         27.36         955.44         30.24           76         1 <td>59</td> <td>1</td> <td>758.15</td> <td>765.82</td> <td>7.67</td> <td>780.57</td> <td>22.42</td> <td>782.93</td> <td>24.78</td>	59	1	758.15	765.82	7.67	780.57	22.42	782.93	24.78
62         3         796.70         804.76         8.06         820.26         23.56         822.74         26.04           63         4         809.55         817.74         8.19         833.49         23.94         836.01         26.46           64         1         822.40         830.72         8.32         846.72         24.32         849.28         26.88           67         1         860.95         869.66         8.71         886.41         25.46         889.09         28.14           69         2         886.65         895.62         8.97         912.87         26.22         915.63         28.98           70         2         899.50         908.60         9.10         926.10         26.60         928.90         29.40           71         1         912.35         921.58         9.23         939.33         26.98         942.17         29.82           72         1         925.20         934.56         9.36         952.56         27.36         955.44         30.24           76         1         976.60         986.48         9.88         1005.48         28.88         1008.52         31.92           80         1 </td <td>60</td> <td>5</td> <td>771.00</td> <td>778.80</td> <td>7.80</td> <td>793.80</td> <td>22.80</td> <td>796.20</td> <td>25.20</td>	60	5	771.00	778.80	7.80	793.80	22.80	796.20	25.20
63         4         809.55         817.74         8.19         833.49         23.94         836.01         26.46           64         1         822.40         830.72         8.32         846.72         24.32         849.28         26.88           67         1         860.95         869.66         8.71         886.41         25.46         889.09         28.14           69         2         886.65         895.62         8.97         912.87         26.22         915.63         28.98           70         2         899.50         908.60         9.10         926.10         26.60         928.90         29.40           71         1         912.35         921.58         9.23         939.33         26.98         942.17         29.82           72         1         925.20         934.56         9.36         952.56         27.36         955.44         30.24           76         1         976.60         986.48         9.88         1005.48         28.88         1008.52         31.92           80         1         1028.00         1038.40         10.40         1058.40         30.40         1061.60         33.60           84 <t< td=""><td>61</td><td>1</td><td>783.85</td><td>791.78</td><td>7.93</td><td>807.03</td><td>23.18</td><td>809.47</td><td>25.62</td></t<>	61	1	783.85	791.78	7.93	807.03	23.18	809.47	25.62
64         1         822.40         830.72         8.32         846.72         24.32         849.28         26.88           67         1         860.95         869.66         8.71         886.41         25.46         889.09         28.14           69         2         886.65         895.62         8.97         912.87         26.22         915.63         28.98           70         2         899.50         908.60         9.10         926.10         26.60         928.90         29.40           71         1         912.35         921.58         9.23         939.33         26.98         942.17         29.82           72         1         925.20         934.56         9.36         952.56         27.36         955.44         30.24           76         1         976.60         986.48         9.88         1005.48         28.88         1008.52         31.92           80         1         1028.00         1038.40         10.40         1058.40         30.40         1061.60         33.60           84         1         1079.40         1090.32         10.92         1111.32         31.92         1114.68         35.28	62	3	796.70	804.76	8.06	820.26	23.56	822.74	26.04
67         1         860.95         869.66         8.71         886.41         25.46         889.09         28.14           69         2         886.65         895.62         8.97         912.87         26.22         915.63         28.98           70         2         899.50         908.60         9.10         926.10         26.60         928.90         29.40           71         1         912.35         921.58         9.23         939.33         26.98         942.17         29.82           72         1         925.20         934.56         9.36         952.56         27.36         955.44         30.24           76         1         976.60         986.48         9.88         1005.48         28.88         1008.52         31.92           80         1         1028.00         1038.40         10.40         1058.40         30.40         1061.60         33.60           84         1         1079.40         1090.32         10.92         1111.32         31.92         1114.68         35.28	63	4	809.55	817.74	8.19	833.49	23.94	836.01	26.46
69       2       886.65       895.62       8.97       912.87       26.22       915.63       28.98         70       2       899.50       908.60       9.10       926.10       26.60       928.90       29.40         71       1       912.35       921.58       9.23       939.33       26.98       942.17       29.82         72       1       925.20       934.56       9.36       952.56       27.36       955.44       30.24         76       1       976.60       986.48       9.88       1005.48       28.88       1008.52       31.92         80       1       1028.00       1038.40       10.40       1058.40       30.40       1061.60       33.60         84       1       1079.40       1090.32       10.92       1111.32       31.92       1114.68       35.28	64	1	822.40	830.72	8.32	846.72	24.32	849.28	26.88
70         2         899.50         908.60         9.10         926.10         26.60         928.90         29.40           71         1         912.35         921.58         9.23         939.33         26.98         942.17         29.82           72         1         925.20         934.56         9.36         952.56         27.36         955.44         30.24           76         1         976.60         986.48         9.88         1005.48         28.88         1008.52         31.92           80         1         1028.00         1038.40         10.40         1058.40         30.40         1061.60         33.60           84         1         1079.40         1090.32         10.92         1111.32         31.92         1114.68         35.28	67	1	860.95	869.66	8.71	886.41	25.46	889.09	28.14
71         1         912.35         921.58         9.23         939.33         26.98         942.17         29.82           72         1         925.20         934.56         9.36         952.56         27.36         955.44         30.24           76         1         976.60         986.48         9.88         1005.48         28.88         1008.52         31.92           80         1         1028.00         1038.40         10.40         1058.40         30.40         1061.60         33.60           84         1         1079.40         1090.32         10.92         1111.32         31.92         1114.68         35.28	69	2	886.65	895.62	8.97	912.87	26.22	915.63	28.98
72         1         925.20         934.56         9.36         952.56         27.36         955.44         30.24           76         1         976.60         986.48         9.88         1005.48         28.88         1008.52         31.92           80         1         1028.00         1038.40         10.40         1058.40         30.40         1061.60         33.60           84         1         1079.40         1090.32         10.92         1111.32         31.92         1114.68         35.28	70	2	899.50	908.60	9.10	926.10	26.60	928.90	29.40
76         1         976.60         986.48         9.88         1005.48         28.88         1008.52         31.92           80         1         1028.00         1038.40         10.40         1058.40         30.40         1061.60         33.60           84         1         1079.40         1090.32         10.92         1111.32         31.92         1114.68         35.28	71	1	912.35	921.58	9.23	939.33	26.98	942.17	29.82
80     1     1028.00     1038.40     10.40     1058.40     30.40     1061.60     33.60       84     1     1079.40     1090.32     10.92     1111.32     31.92     1114.68     35.28	72	1	925.20	934.56	9.36	952.56	27.36	955.44	30.24
84         1         1079.40         1090.32         10.92         1111.32         31.92         1114.68         35.28	76	1	976.60	986.48	9.88	1005.48	28.88	1008.52	31.92
	80	1	1028.00	1038.40	10.40	1058.40	30.40	1061.60	33.60
86         2         1105.10         1116.28         11.18         1137.78         32.68         1141.22         36.12	84	1	1079.40	1090.32	10.92	1111.32	31.92	1114.68	35.28
	86	2	1105.10	1116.28	11.18	1137.78	32.68	1141.22	36.12

94	1	1207.90	1220.12	12.22	1243.62	35.72	1247.38	39.48
96	1	1233.60	1246.08	12.48	1270.08	36.48	1273.92	40.32
105	2	1349.25	1362.90	13.65	1389.15	39.90	1393.35	44.10

Size in	Number	Toll	+c. 1%	Difference	+c. 2.9%	Difference	+c. 3.2%	Difference
Meter <sup>2</sup>	of craft	2017/18	Toll	in cash (£)	Toll	in cash (£)	Toll	in cash (£)
Meter	(30 Sep 2017)	£	2018/19	terms	2018/19	terms	2018/19	terms
5	156	50.00	50.50	0.50	51.45	1.45	51.60	1.60
6	18	60.00	60.60	0.60	61.74	1.74	61.92	1.92
7	11	70.00	70.70	0.70	72.03	2.03	72.24	2.24
8	8	80.00	80.80	0.80	82.32	2.32	82.56	2.56
9	13	90.00	90.90	0.90	92.61	2.61	92.88	2.88
10	5	100.00	101.00	1.00	102.90	2.90	103.20	3.20
11	9	110.00	111.10	1.10	113.19	3.19	113.52	3.52

1.20

1.30

1.40

1.50

1.60

1.70

1.80

1.90

2.10

2.20

2.80

3.00

123.48

133.77

144.06

154.35

164.64

174.93

185.22

195.51

216.09

226.38

288.12

308.70

3.48

3.77

4.06

4.35

4.64

4.93

5.22

5.51

6.09

6.38

8.12

8.70

123.84

134.16

144.48

154.80

165.12

175.44

185.76

196.08

216.72

227.04

288.96

309.60

3.84

4.16

4.48

4.80

5.12

5.44

5.76

6.08

6.72

7.04

8.96

9.60

121.20

131.30

141.40

151.50

161.60

171.70

181.80

191.90

212.10

222.20

282.80

303.00

120.00

130.00

140.00

150.00

160.00

170.00

180.00

190.00

210.00

220.00

280.00

300.00

Category 11 - Electric private motor boats

12

13

14

15

16

17

18

19

21

22

28

30

3

5

2

2

3

1

2

1

1

5

1

1

Category 12 - Motorised sailing craft										
Size in Meter <sup>2</sup>	Number of craft	Toll 2017/18	+c. 1% Toll	Difference in cash (£)	+c. 2.9% Toll	Difference in cash (£)	+c. 3.2% Toll	Difference in cash (£)		
6	(30 Sep 2017)	£ 57.00	2018/19 57.60	terms 0.60	2018/19 58.68	terms 1.68	2018/19 58.86	terms 1.86		
7	23	66.50	67.20	0.70	68.46	1.96	68.67	2.17		
8	51	76.00	76.80	0.80	78.24	2.24	78.48	2.48		
9	32	85.50	86.40	0.90	88.02	2.52	88.29	2.79		
10	94	95.00	96.00	1.00	97.80	2.80	98.10	3.10		
11	104	104.50	105.60	1.10	107.58	3.08	107.91	3.41		
12	107	114.00	115.20	1.20	117.36	3.36	117.72	3.72		
13	78	123.50	124.80	1.30	127.14	3.64	127.53	4.03		
14	74	133.00	134.40	1.40	136.92	3.92	137.34	4.34		
15	67	142.50	144.00	1.50	146.70	4.20	147.15	4.65		
16	64	152.00	153.60	1.60	156.48	4.48	156.96	4.96		
17	115	161.50	163.20	1.70	166.26	4.76	166.77	5.27		
18	63	171.00	172.80	1.80	176.04	5.04	176.58	5.58		
19	22	180.50	182.40	1.90	185.82	5.32	186.39	5.89		
20	68	190.00	192.00	2.00	195.60	5.60	196.20	6.20		
21	40	199.50	201.60	2.10	205.38	5.88	206.01	6.51		
22	23	209.00	211.20	2.20	215.16	6.16	215.82	6.82		
23	18	218.50	220.80	2.30	224.94	6.44	225.63	7.13		
24	4	228.00	230.40	2.40	234.72	6.72	235.44	7.44		
25	17	237.50	240.00	2.50	244.50	7.00	245.25	7.75		
26	14	247.00	249.60	2.60	254.28	7.28	255.06	8.06		
27	6	256.50	259.20	2.70	264.06	7.56	264.87	8.37		
28	9	266.00	268.80	2.80	273.84	7.84	274.68	8.68		
29	3	275.50	278.40	2.90	283.62	8.12	284.49	8.99		
30	3	285.00	288.00	3.00	293.40	8.40	294.30	9.30		
31	1	294.50	297.60	3.10	303.18	8.68	304.11	9.61		
37	1	351.50	355.20	3.70	361.86	10.36	362.97	11.47		

Category	Category 13 - Private sailing craft										
Size in	Number of craft	Toll 2017/18	<b>+c. 1%</b> Toll	Difference in cash (£)	<b>+c. 2.9%</b> Toll	Difference in cash (£)	<b>+c. 3.2%</b> Toll	Difference in cash (£)			
Meter <sup>2</sup>	(30 Sep 2017)	£	2018/19	terms	2018/19	terms	2018/19	terms			
5	506	40.00	40.40	0.40	41.20	1.20	41.30	1.30			
6	99	48.00	48.48	0.48	49.44	1.44	49.56	1.56			
7	58	56.00	56.56	0.56	57.68	1.68	57.82	1.82			
8	106	64.00	64.64	0.64	65.92	1.92	66.08	2.08			

9	30	72.00	72.72	0.72	74.16	2.16	74.34	2.34
10	44	80.00	80.80	0.80	82.40	2.40	82.60	2.60
		+						
11	145	88.00	88.88	0.88	90.64	2.64	90.86	2.86
12	40	96.00	96.96	0.96	98.88	2.88	99.12	3.12
13	5	104.00	105.04	1.04	107.12	3.12	107.38	3.38
14	11	112.00	113.12	1.12	115.36	3.36	115.64	3.64
15	1	120.00	121.20	1.20	123.60	3.60	123.90	3.90
16	3	128.00	129.28	1.28	131.84	3.84	132.16	4.16
17	3	136.00	137.36	1.36	140.08	4.08	140.42	4.42
18	2	144.00	145.44	1.44	148.32	4.32	148.68	4.68
19	1	152.00	153.52	1.52	156.56	4.56	156.94	4.94
21	4	168.00	169.68	1.68	173.04	5.04	173.46	5.46
22	1	176.00	177.76	1.76	181.28	5.28	181.72	5.72
23	2	184.00	185.84	1.84	189.52	5.52	189.98	5.98
24	1	192.00	193.92	1.92	197.76	5.76	198.24	6.24
32	1	256.00	258.56	2.56	263.68	7.68	264.32	8.32
33	1	264.00	266.64	2.64	271.92	7.92	272.58	8.58
38	1	304.00	307.04	3.04	313.12	9.12	313.88	9.88
45	1	360.00	363.60	3.60	370.80	10.80	371.70	11.70

Category	Category 14 - Private houseboats										
Size in Meter <sup>2</sup>	Number of craft (30 Sep 2017)	Toll 2017/18 £	<b>+c. 1%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 2.9%</b> Toll 2018/19	Difference in cash (£) terms	<b>+c. 3.2%</b> Toll 2018/19	Difference in cash (£) terms			
11	2	56.65	57.31	0.66	58.30	1.65	58.52	1.87			
14	1	72.10	72.94	0.84	74.20	2.10	74.48	2.38			
15	2	77.25	78.15	0.90	79.50	2.25	79.80	2.55			
17	3	87.55	88.57	1.02	90.10	2.55	90.44	2.89			
18	2	92.70	93.78	1.08	95.40	2.70	95.76	3.06			
19	3	97.85	98.99	1.14	100.70	2.85	101.08	3.23			
20	2	103.00	104.20	1.20	106.00	3.00	106.40	3.40			
24	1	123.60	125.04	1.44	127.20	3.60	127.68	4.08			
26	2	133.90	135.46	1.56	137.80	3.90	138.32	4.42			
27	1	139.05	140.67	1.62	143.10	4.05	143.64	4.59			
28	1	144.20	145.88	1.68	148.40	4.20	148.96	4.76			
31	1	159.65	161.51	1.86	164.30	4.65	164.92	5.27			
33	2	169.95	171.93	1.98	174.90	4.95	175.56	5.61			
35	2	180.25	182.35	2.10	185.50	5.25	186.20	5.95			
36	2	185.40	187.56	2.16	190.80	5.40	191.52	6.12			
38	2	195.70	197.98	2.28	201.40	5.70	202.16	6.46			
40	1	206.00	208.40	2.40	212.00	6.00	212.80	6.80			
41	1	211.15	213.61	2.46	217.30	6.15	218.12	6.97			

42	1	216.30	218.82	2.52	222.60	6.30	223.44	7.14
43	1	221.45	224.03	2.58	227.90	6.45	228.76	7.31
44	1	226.60	229.24	2.64	233.20	6.60	234.08	7.48
45	1	231.75	234.45	2.70	238.50	6.75	239.40	7.65
46	1	236.90	239.66	2.76	243.80	6.90	244.72	7.82
48	2	247.20	250.08	2.88	254.40	7.20	255.36	8.16
49	2	252.35	255.29	2.94	259.70	7.35	260.68	8.33
50	1	257.50	260.50	3.00	265.00	7.50	266.00	8.50
61	1	314.15	317.81	3.66	323.30	9.15	324.52	10.37
62	1	319.30	323.02	3.72	328.60	9.30	329.84	10.54
75	1	386.25	390.75	4.50	397.50	11.25	399.00	12.75
110	1	566.50	573.10	6.60	583.00	16.50	585.20	18.70

Category 15 - Private rowing boats, canoes etc.								
Size in Meter <sup>2</sup>	Number	Toll	+c. 1%	Difference	+c. 2.9%	Difference	+c. 3.2%	Difference
	of craft	2017/18	Toll	in cash (£)	Toll	in cash (£)	Toll	in cash (£)
	(30 Sep 2017)	£	2018/19	terms	2018/19	terms	2018/19	terms
All	1477	32.85	33.18	0.33	33.81	0.96	33.91	1.06

Broads Authority
Navigation Committee
19 October 2017
Agenda Item No 8

## **Mutford Lock**

Report by Chief Executive, Rivers Engineer, and Solicitor and Monitoring Officer

# **Summary:**

This report provides members with an update on the Harbour Revision Order for Mutford Lock and outlines the estimated annual and capital costs associated with owning and managing the asset. The report also provides a summary of the current usage and value of the lock as an asset to the Authority and local area.

The lock is typically used about 800 times per year for boats travelling between Oulton Broad and Lake Lothing. This is a charged service which generates around £10,000 income each year.

The cost of operating and maintaining the lock is between £30,000 and £40,000 per year, but the Authority also needs to be prepared to make adequate provision for substantial capital costs over the long term. Major repair to the lock walls is likely to be one of the most significant capital costs. Further work is needed to understand the repairs that are likely to be required, but it is thought that major work on the lock walls could cost in the region of £500,000 to £1,000,000.

The Navigation Committee is asked to consider this updating report and to reaffirm its support for the completion of the process to transfer ownership of the lock.

# 1 Background

- 1.1 Mutford Lock is the Broads second access to the North Sea, connecting Oulton Broad with Lake Lothing. Due to different tides in Lake Lothing and Oulton Broad, the lock structure has an unusual bi-directional design. It has two pairs of opposing gates at each end to allow for high water levels on either side of the lock.
- 1.2 The Lock was constructed in 1828 as part of a series of major works undertaken to create a new navigation route for traders from the North Sea to Norwich. This included opening Lake Lothing to the North Sea to provide a harbour and the construction of Mutford Lock to provide controlled navigational access onto Oulton Broad.
- 1.3 In the 1840s, the Norwich and Lowestoft Navigation assets including Mutford Lock were acquired by Samuel Morton Peto who developed the railway link into Lowestoft. The railway was later taken over by the Great Eastern Railway who also took on Lowestoft Harbour and the navigation company until WWII. After the war the Norwich and Lowestoft navigation (including

- Mutford Lock) became a nationalised asset and, along with other railway owned docks, became the responsibility of the British Transport Docks Board.
- 1.4 The British Transport Docks Board was abolished by the Transport Act 1981 and docks including Lowestoft were privatised as Associated British Ports. Mutford Lock was not relevant to ABP's business and so ABP encouraged statutory Authorities to take it over, initially Suffolk County Council and subsequently Waveney District Council and the Broads Authority. The process of a Harbour Revision Order was therefore started to amend the port boundary and include the transfer of Mutford Lock to the Broads Authority.
- 1.5 The Harbour Revision Order (HRO) has not yet been completed but the Broads Authority has managed and maintained the Lock since the early 1990s. Since this time members of the Navigation Committee and Broads Authority Committee have received a number of reports on the progress of the HRO and other key aspects including the condition of the lock and its operation.
- 1.6 This report provides members with a further update on the progress of the HRO and gives a summary of the usage, value and potential financial liability associated with maintaining the lock into the future.

## 2 Harbour Revision Order

- 2.1 The matter of the HRO was considered by the Navigation Committee on 22 April 2010 when it considered a detailed report by the then Director of Waterways. On 14 May 2010 the Broads Authority resolved that the application for a HRO in liaison with Associated British Ports be authorised.
- 2.2 The legal documentation relating to the HRO has been undertaken, as with all associated documentation, by the Authority's external lawyers. A recent meeting with them has informed this section of the report.
- 2.3 The Marine Management Organisation (MMO) has competence over the HRO and has been extensively consulted over the draft. Within this process the need for two, connected HROs has been established. One relates to the transfer of land and the other relates to the transfer of jurisdiction. The two drafts are ready for submission to the MMO. This will trigger a statutory process which will include a number of steps including publicity by the MMO. There is a fee of £4,000 to pay for each HRO.
- 2.4 There is also a tripartite agreement prepared between Associated British Ports, Suffolk County Council and the Broads Authority. This agreement, which has not been formally exchanged pending approval of the HRO's, covers the formal transfer of land and matters such as easements, rights of way and indemnities.
- 2.5 The current operation of the lock reflects an agreement in 1992 which refers to the parties having reached certain understandings concerning the intended transfer of responsibility by Associated British Ports. It also confirmed the

establishment of the endowment fund originally in the sum of £156,000. The operation of the lock in the interim has been on the basis of a degree of goodwill and common purpose by the respective organisations.

# 3 Existing Level of Use

- 3.1 Mutford Lock provides access between Lake Lothing and the Broads waterways. It is the principal gateway from the North Sea to Oulton Broad and the Broads' Suffolk waterways. The key reasons craft use the lock is one of the following:
  - 1. For users of the Broads waterways to access marinas in Lake Lothing for permanent and temporary moorings.
  - 2. For users of the Broads waterways to access boatyards on Lake Lothing for maintenance.
  - For users of the Broads waterways with seagoing craft to enjoy trips to sea, avoiding the transit through the Port of Great Yarmouth and associated bridges and tidal currents.
  - 4. For seagoing craft from abroad and other navigation areas to visit the Broads avoiding the transit through the Port of Great Yarmouth and associated bridges and tidal currents.
- 3.2 Typically each year there are around 800 passages through the Lock with the vast majority within high season between Easter and the end of October. As an indication of how the passage numbers relate to individual vessels, a review has been undertaken of passage data from April to December 2016 and this is summarised in Table 1.

Period	01/04/16 to 31/12/16
Total number of lock passages	705
No. of different vessels	368
No. of vessels that only make single passage (one way)	183 (50% of vessels using the lock)
No. of vessel making one return passage only	119 (32% of vessels using the lock)
No. of vessels making multiple return or single passages	66 (18% of vessels using the lock)
Max no passages for single vessel	22

Table 1: Passage data for April to December 2016

3.3 The 2016 data shows that during that period 368 individual vessels used Mutford Lock. To provide some context, this is around 3% of all private boats on the Broads making use of Mutford Lock.

#### 4 Value of the Lock

- 4.1 Mutford Lock provides a physical access point for the Broads as outlined in 3.1. Passage through the Lock from Oulton Broad to Lake Lothing and the North Sea is a popular route for a variety of reasons, but predominantly Mutford Lock is the gateway from the Broads to Lake Lothing, with its well serviced sheltered marinas. In reverse the lock is a convenient gateway to the beauty and safe navigations of the Broads from Lake Lothing and further afield.
- 4.2 Mutford Lock is also a physical controllable barrier between the North Sea and the fresh water of Oulton Broad and the River Waveney valley. The lock gates are a major control for the water level and flows on Oulton Broad and the separation of saline and fresh water. The Broads Authority manages the lock for the purpose of providing navigational access, not as a tidal barrier. However it does provide this added value to the area and may be considered by the Environment Agency as a third party flood risk management asset.
- 4.3 Economically the lock directly generates an income to the Authority through a charge for passage through the lock. The current fee for a one-way passage is £13 which is collected by the lock operators and transferred to the Authority. Typically there are approximately 800 passages through the lock each year which generates an income of around £10,000. This income is currently transferred to the navigation reserve.
- 4.4 The operators of Mutford Lock also sell short visit tolls at Oulton Broad Yacht Station. Typically around 170 short visit tolls are sold at Oulton Broad Yacht Station each year and the vast majority of these are to boats which enter the Broads through the lock.
- 4.5 Included in the HRO is some adjacent land; this includes a length of quay on the edge of Oulton Broad, which is currently leased by the Authority to a river tours operator. The lease generates an annual income to the Authority of £2,000 and this is transferred to the Property earmarked reserve.
- 4.6 By providing direct navigational access between Lake Lothing and the Broads, Mutford Lock also supports a number of associated businesses and organisations that have grown up and established on Lake Lothing and Oulton Broad. These include a number of marinas, boatyards, contactors, trip boats and sailing clubs and some are heavily reliant on continued access through the lock.

#### **5** Operation and Maintenance Costs

5.1 The operation of Mutford Lock is complex in comparison to typical locks found on other inland waterways. It is essentially a sea lock, it has a different tidal cycle at each end and the operation must be coordinated with the lifting of one or two bascule bridges. To manage the operation safely and avoid potential major impacts on Oulton Broad the lock is operated by a team of trained lock keepers and maintained by specialist contractors.

5.2 To operate and undertake general maintenance the Authority currently has to budget for an annual expenditure of £30,000 as shown in Table 2.

Operating agreement (service provided	
by Sentinel Leisure Trust)	£ 18,874
Hydraulic, Electrical & Mechanical	
Servicing	£ 5,000
Underwater checks and maintenance	£ 3,000
Maintenance consumables & minor	
repairs	£ 3,126
Total	£ 30,000

Table 2: Typical annual budget expenditure

- 5.3 A significant part of this cost is the fee paid to Sentinel Leisure Trust (SLT), a subsidiary of Waveney District Council, who operates the lock. As part of the operation SLT also operate the road and pedestrian bridges on behalf of Suffolk County Council. Suffolk County Council has entered a joint operating agreement with the Broads Authority and STL and pays an equal fee of £18,874. The apportioning of the total operating fee between the Broads Authority and Suffolk County Council is due to be reviewed in November, but no significant change is expected.
- In addition to the general maintenance and operation of the lock, the Authority has an ongoing programme of repairs to restore and replace worn and degraded mechanical parts. At present the Authority has been working through a back log of mechanical repairs and there is a need to spend approximately £10,000 over the next four years to get all mechanical components in a good state of repair. This schedule of repairs for the next four years is outlined in Table 3.

Hydraulic Hoses - replace	£	5,000
Capstan - Restore 4 no	£	8,000
Racks Replacement - 6 no.	£	12,000
Paving -Break out and repave settled areas	£	5,000
Replace penstock drive couplers and re-align	£	1,000
Replace hydraulic motors	£	8,000
Replace motor covers	£	1,000
Total	£	40,000
Equivalent annual cost over next 4 years	£	10,000

Table 3: Current 4 year programme of mechanical repairs

5.5 The tripartite agreement to be completed includes an indemnity by the Authority to Associated British Ports to keep the lock in good and substantial repair. Once the current repair programme is complete, it is estimated that an investment of £70,000 to £80,000 will be required over a 20 year period to keep all the mechanical components in a good state of repair. This will cover replacement and refurbishing of components such as those covered in Table

3, but also includes dredging, maintenance of the gates and overhaul of the hydraulic power units.

# **6** Future Capital Costs

- 6.1 Mutford Lock is approximately 200 years old. Almost every part of the lock over this period has been repaired or replaced over this time. The costs for the Authority to manage the lock will therefore include occasional larger capital sums to cover major repairs.
- 6.2 Managing the lock over the long term, the Authority can expect to face the cost of some significant capital works such as:
  - Re-piling of the Oulton Broad guay
  - Replacement of penstocks
  - Re-piling the heavy steel sheet piling on the Lake Lothing approach
  - Major repairs or rebuilding of remaining masonry lock walls
  - Replacing the hydraulic power units
  - Re-paving the quaysides
  - Replacing the lock gates
- 6.3 The most significant costs are likely to be associated with any major repair or reconstruction of the lock walls. The central part of the lock chamber was rebuilt in 1964 following a collapse. This part of the lock chamber is in good condition, however the older masonry walls local to the lock gates are in poor condition in some areas and the stability of these masonry walls has not been fully determined.
- Major repairs to the lock walls will require the lock to be de-watered and the lock walls to be stabilised to provide a safe environment to undertake work. De-watering the lock will require significant temporary works that is likely to be a large part of the cost of major repairs. Last year the Authority employed engineers Canham Consulting to investigate the basic design and likely costs of de-watering the lock. The Consultants reported an estimated cost of £400,000 to £500,000.
- 6.5 With a reasonable understanding how the lock could be de-watered, the next stage for the Authority is to investigate the likely scope, urgency and cost of repairs required on the lock walls. It is strongly recommended that the Authority appoint a suitable specialist consultant to do this. Major repairs and reconstruction of masonry locks is undertaken across England by the Canal and Rivers Trust with reported costs varying between £100,000 and £600,000. The Canal and Rivers Trust Projects do not directly compare to Mutford Lock but provide some indication of the cost of structural work within a stable environment.
- 6.6 To give members some perspective on likely costs of capital works, a summary of our current best estimates is included in Table 4 with an indication of timescales. Members should however note that these estimates,

particularly with regard to lock wall repairs need some further engineering consideration.

Element	Estimated cost	Timescale
		Required now (following
River Tours Quay (35m)	£ 52,500	HRO)
		30 years (if 4 year
		maintenance plan is
Penstocks	£ 64,000	implemented)
Steel sheet piling (25m)	£150,000	20 years
De-Watering	£ 500,000	
Masonry walls inc. gate		Unknown
quoins - repair or rebuild	£100,000 - £500,000	
Hydraulics	£ 70,000	30 years
Paving	£ 10,000	20 years
Lock Gates	£ 320,000	40 years

Table 4: Summary of likely capital costs

6.7 The Authority has an earmarked reserve fund for maintenance of Mutford Lock which forms part of the Property Reserve. The potential requirement for significant structural repairs to the lock has always been known and so the Authority has made annual contributions of £27,000 to build up the reserve fund. The current value of the reserve fund (as of August 2017) is £315,949 (specific to Mutford Lock).

# 7 Financial Implications

- 7.1 In terms of revenue costs the Lock attracts an income of approximately £10,000 per annum and running costs are in the order of £30-40,000 per year.
- 7.2 As members can see from the table of capital costs shown above under the worst case scenario the repair costs could amount to £1.67 million over 40 years, equivalent to c £42,000 per annum contribution to the Property Reserve which is £15,000 per annum above the current provision of £27,000.

# 8 Risk Analysis

8.1 Mutford Lock is an historic piece of engineering. It will require ongoing expenditure to meet the Authority's proposed obligations to keep it in good and substantial repair. As evidenced by the establishment of the endowment fund, much of the routine maintenance had been envisaged from the outset of the proposals. It also seems to be well-established and anticipated that there will always be a shortfall between the annual operation costs and the income generated from users of the lock. The main risk is outlined in paragraph 6.6, which relates to major capital expenditure, especially the relatively uncertain timing of any repairs to masonry.

Background papers: None

Tom Hunter, David Harris 3 October 2017 Author:

Date of report:

Broads Plan Objectives: 4.1

Appendices: None

Broads Authority
Navigation Committee
19 October 2017
Agenda Item No 9

# Asset Management Update

Report by Asset Officer

**Summary:** This report provides an update for the development of the Asset

Management Plan, the outcome of the internal audit and an update on

the status of mooring provision and piling strategy.

Members are asked to note the contents of the report

# 1 Asset Management Strategy

- 1.1 The Broads Authority adopted its Asset Management Strategy in July 2012, following its identification as a key priority for the Broads Authority following an internal audit carried out in 2008/09, and the creation of a new post of Asset Officer as part of the restructuring in 2011. This Strategy identifies how the Authority will ensure that the Authority's land, property and other assets are managed and maintained as effectively as possible.
- 1.2 A follow up internal audit was completed in July 2017. The review was taken to provide insight into the management of the Broads Authority assets, with particular regard to: the policies and procedures that are in place, acquisitions and disposals, leases, maintenance, valuations and reconciliations to the fixed asset register.
- 1.3 The four overall Assurance Assessment categories that can be applied to the audit are- no assurance, limited assurance, reasonable assurance, and substantial assurance, and as a result of the review the category given to the Broads Authority was, reasonable assurance 'Adequate and effective, risk and control processes.'
- 1.4 Recommendations suggested for improvement included: -
  - (i) A central database of building condition surveys to reduce the risk of surveys not being conducted at the required time and to ensure that the condition of buildings are maintained.
  - (ii) Procedural notes are produced for the disposal process.
  - (iii) The Authority works with partner organisations to improve timescales on completing lease agreements.

# 2 Asset Management Plan

2.1 The Authority's progress in developing its Asset Management Plan was reported to members in January 2014 where for the first time the Authority had collected a complete dataset of all its assets. As a result the Authority reviewed the relevant revenue budgets, and agreed to make financial

provisions to a number of ring fenced reserves. An update of which is set out in Appendix 1.

2.2 As a general principle it was agreed that any underspend on any of these budgets as a result of securing more favourable prices should be ring fenced and added back into the appropriate reserves. Similarly, the reserve strategies should be regularly reviewed, updated and amended as required.

# 3 Moorings

- 3.1 The Authority's Mooring Strategy 2006, updated in April 2009 includes information relating to its principles in respect of the provision of moorings, and a series of criteria relating to the provision of moorings. In 2013 the Authority adopted an Integrated Access Strategy (IAS) for the Broads which sought to make improvements to the connectivity and use of access facilities on both land and water.
- 3.2 Budgetary pressure has meant that contributions to ring fenced reserves for the purchase of sites have been removed from the revenue budget, and any opportunities considered on an ad-hoc basis.
- 3.3 Since the Asset Management report, which updated information on moorings at the Broads Authority meeting in November 2012, we have had a significant increase in the length of moorings the Authority provides. Currently the Authority provides 8416 metres (7535m in 2012) of visitor and demasting moorings over 68 (63 in 2012) sites.
- 3.4 At the Broads Authority meeting in November 2015 the 10 year moorings piling action plan was produced and this has been updated and can be found at Appendix 2 of the report.

#### 4 Vehicles

4.1 The Broads Authority's Vehicle Procurement Strategy supplements the overarching Broads Authority Procurement Strategy and provides guidance and advice on vehicle procurement decisions, and helps ensure that these objectives are met in full. The current status of our vehicles is set out in Appendix 2 of the strategy and is Appendix 3 of this report.

Background paper: None

Report author: Angie Leeper
Date of report: 3 October 2017

Broads Plan Objectives: None

Appendices: APPENDIX 1 Summary of previously agreed liabilities and contributions to

reserves

APPENDIX 2 Ten year Piling Strategy Plan as at September 2017 APPENDIX 3 Current Broads Authority Vehicles as at 1 September 2017

**APPENDIX 1** – Summary of previously agreed liabilities and contributions to reserves

Item Financial provision to reserves		-	Annual Contribution	Current reserve position (31/8/2017)	Comment -
Premises	NAV	NPG	to reserves	(31/8/201/)	
Dockyard Maintenance	£21,000	£9,000	£30,000	Dockyard site maintenance reserve	Apportioned 70/30 Nav/NPG
Other depots/Boathouses and billets/TICs and Yacht stations	£14,000	£36,000	£50,000	nil	Full review of property undertaken in 2016. Agreed by BA Jan 2017 – Contributions to commence 2018/19
New Office	nil	nil	nil	£80,412	Defra Funding for Head Office move
Accommodation					
Plant Vehicle and Ves	ssels				
Capital Vessels and equipment	£64,400	£27,600	£92,000	Vessels, vehicles and Equip reserve £73,828	Apportioned 70/30 Nav/NPG
Launch Replacement Strategy	£15,000	nil	£15,000	£29,083	£3,000 increase from 18/19 contributions agreed by BA Jan 2017
Trip Boats	nil	nil	nil	No current reserve for trip boat replacement	Current replacement estimate for 3 trip boats £135,000 no prevision for replacement contributions recommended at this stage, provided regular refit maintenance and replacement of equipment is carried out. To be reviewed if costs escalate 100% NPG
Ranger Vehicles	£7,800	£5,200	£13,000		The Authority has adopted a 10 year vehicle replacement strategy
Office pool vehicles	£4,620	£9,380	£14,000	Vehicle Reserve £155,787	apportioned Ranger 60/40 Nav/NPG, Office vehicles 67/33/ Nav/NPG
C & M Vehicles	£15,400	£6,600	£22,000		Apportioned 70/30 Nav/NPG
Fen Management/ Fen Harvester	nil	nil	nil	£5,823	Replacement of Fen Harvester
Property	1			1	
Mutford Lock	£25,000	nil	£25,000	Mutford Lock endowment fund £315,949	100% Navigation plus £2,000 rental
24hr Moorings	£150,00 0	nil	£150,000	nil	16/17 utilised for purchase of Acle Bridge
Dredging disposal sites	nil	nil		£19,602	Need to maintain £30,00 in reserve for surrender of Postwick Tip Licence but no further funds to be accrued
Countryside sites/furniture	nil	£46,000	£46,000	£169,953	Agreed by BA Nov 2015 together with ring fenced UT
Upper Thurne Enhancement Scheme	nil	nil	£19,000	Within "Other reserves" Reserve £98,809	Ring fenced specifically for the maintenance of assets in Potter Heigham. – agreed by BA Nov 2015

# APPENDIX 2 - Ten year Piling Strategy Plan as at September 2017

Piling remains or less than 2 years life

2 to 5 year remaining servicable life

6 to 10 year remaining servicable life

10 to 20 years remaining servicable life

BA Mooring

BA piled asset (non mooring)

Repeat re-piling

ndooing Asset Piling		ener!	lifeend	lease and	Starne	e test diff	det te imate Proposed Action Plan
Hoveton Viaduct	319	2018	Sep-19	2017	2	150000	Contractor - Repile steel -50% only - New lease agreed in principle
Burgh Castle	139	2017	holding		1		EA cost - action still unclear - Current agreement finishes December 2017
Boundary Farm, Oby	40	2017	F/H	2017	1	5000	Repair timber boards and possible installation of returns - BA Staff
Geldeston Lock Extension	20		F/H	2017		4000	BA staff - steel sheet at downstream end
The Heater	200		F/H	2018		50000	Remove timber pile remains (hazard) install new erosion protection
Deep Dyke	193	2020	Oct-14	2019	1	200000	Contractor - Repile steel 2018 - New Lease signed (2035)
Deep Go Dyke	112	2022	Oct-14	2020	2	112000	Contractor - Re-pile steel - New lease signed ( 2035)
White Slea	25	2022	Oct-14	2020	2	25000	Contractor - Re-pile steel - New lease signed (2035)
Ludham Fieldbase basin	80	2021	F/H	2021	1	40000	contractor - repile timber - premises budget (being sold)
Mutford Lock - Broad front piling	40	2017	F/H	2021		50000	Not officially BA yet - needs doing as soon as HRO complete for River Tours purchase
Turntide Jetty - End section	102	2023	F/H	2022	1	200000	Contractor - Remove/mark piles or replace
Potter Heigham Martham Bank	144	2025	2085	2023	1	22500	BA Replace boards or Contractor - Re-pile steel if necessary
Potter Heigham Repps Bank	145	2025	2085	2023	1	22500	BA Replace boards or Contractor - Re-pile steel if necessary
Dilham Staithe	50	2025	F/H	2024	2	100000	Drainage issues, leaning piling - re-pile with stiffer sheets
Tylers Cut - turning basin			F/H	2024		50000	Remove steel pile remains (hazard) install new erosion protection
Horning Marshes	225	2025	Nov-19	2025	1	225000	Gaps between vertical timber piles - check EA position
Cantley	131	2027	Mar-17	2027	1	140000	30m new EA piling, 101m older piling - EA
The Mud	170	2027	F/H	2027		200000	Railway sleeper piling leaning but not currently a hazard

APPENDIX 3 - Current Broads Authority Vehicles as at 1 September 2017

	Reg No	Type of vehicle	Date acquired	Expiry Date	List Price	Annual Contract Mileage	Budget Holder/Reponsible Person	,	Strategy Projected replacement	Comments
	Pool Vehicle	S	•	-						•
	AU17 OBA	Renault Kango Crew	April 2017	-	10,921	-	SBirtles/SBirtles	-	April 2027	
	A058 OXC	Renault Kangoo	17/10/2008	-	12,559	-	SBirtles/SBates	-	April 2018	
	A058 RJV	Ford Focus Estate	21/11/2008	-	14,962	-	SBirtles/AEllson	-	Nov 2018	
	Not known	Renault Zoe Electric	Forecast end October 17	-	11,672	-	SBirtles/AClarke	89 (battery Lease)	Oct 2027	to replace written off Ford Focus
	AO59 ERX	Smart Passion Coupe	14/09/2009	-	8,630	-	SBirtles/TRisebrow	-	Sep 2019	
	AO59 ERY	Smart Passion Coupe	18/09/2009	-	8,630	-	SBirtles/EGuds	-	Sep 2019	
	AO13 ABF	Dacia Duster	08/07/2013	-	11,579	-	SBirtles/GDevaney	-	Jul 2023	
- 1	Operations I Construction	Directorate and Maintenance Teams								
	DU61 NUX	Mitsubishi L200 Doublecab	15/09/2011	14/09/2016	-	10,000	DHoare/TLamb	282.45	Sep 2016	This lease has been temporarily extended
1	AP12 GUA	Toyota Hi-lux DoubleCab	17/08/2012	-	17,763	-	DHoare/MDane	-	Aug 2022	
1	A064 EAW	Ford Ranger	30/09/2014	-	18,760	-	DHoare/MDane	-	Sep 2024	
	AO13 ABU	Renault Traffic	06/05/2013	-	13,892	-	DHoare/MDane	-	May 2023	
	A012 TXR	Toyota Hi-lux Pickup	17/05/2012	-	17,320	-	DHoare/TLamb	-	May 2022	
	A012 TXS	Toyota Hi-lux Pickup	17/05/2012	-	17,320	-	DHoare/TLamb	-	May 2022	
	AO12 KFJ	Mitsubishi L200 Singlecab	28/05/2012	-	12,260	-	DHoare/TLamb	-	May 2022	
1	AO15 ULW	Peugot Boxer Van	20/05/2015	-	16,500	-	DHoare/MDane	-	May 2015	Purchased from Sidegate Mtrs
	AO12 DWP	Peugot Expert Tepee	30/03/2012	-	12,958	-	DHoare/TLamb	-	March 2022	
	AO12 OCN	Renaut Traffic Crew Van	27/04/2012	-	13,318	-	DHoare/TLamb	-	April 2022	
	AO12 DWX	Peugot Boxer	19/04/2012	-	13,584	-	DHoare/TLamb	-	April 2022	
	AO12 DWY	Peugot Boxer Tipper	20/03/2012	-	14,693	-	DHoare/TLamb	-	March 2022	
	AU07 WRP	Transit Connect Van	26/05/2009	-	5,335	-	DHoare/RClarke	-	May 2019	Purchased second-hand
	A063 BHX	Dacia Duster	23/10/2013	-	12,079	-	DHoare/Dockyard Pool		Oct 2023	
1	EU63 LUJ	Peugot Boxer Dropside	11/09/2013	10/09/2018		15,000	DHoare/TLamb	271.92		
	AO12 TXU	Toyota HiLux Pickup	17/05/2012	-	17,320		DHoare/TLamb	-	May 2022	
	AP11 EPO	Peugot Bipper	15/07/2011	-	9,115	-	DHoare/RClarke	-	July 2021	

#### Current Broads Authority Vehicles as at 1 September 2017

Appendix 2 cont.

Reg No	Type of vehicle	Date acquired	Expiry Date	List Price	Annual	Budget Holder/Reponsible	Monthly	Strategy	Comments
					Contract	Person	Lease Costs	Projected	
					Mileage			replacement	
Ranger Tean	n								
AU12 OMA	Renault Kangoo	14/03/2012	-	9,521	-	LBurchnall/ABartlett	-	March 2022	
AU12 OMB	Renault Kangoo	14/03/2012	-	9,521	-	LBurchnall/CMorphew	-	March 2022	
AO12 URF	Toyota HiLux Pickup	15/06/2012	-	17,320	-	LBurchnall/HConstantine	-	June 2022	
AO12 URJ	Toyota HiLux Pickup	15/06/2012	-	17,320	-	LBurchnall/CHart	-	June 2022	Assigned to WCT
AO12 TXV	Toyota HiLux Pickup	17/05/2012	-	17,320	-	LBurchnall/RAllard	-	May 2022	
AO12 URE	Toyota HiLux Pickup	15/06/2012	-	17,320	-	LBurchnall/ACullum	-	June 2022	

#### **Boat Test Area Review**

Report by Head of Safety Management

**Summary:** This report sets out the background to the introduction of the Boat Test

Areas and the findings and proposals from the recent review.

Members' views are sought on the proposals as set out in Section 6.

# 1 Background

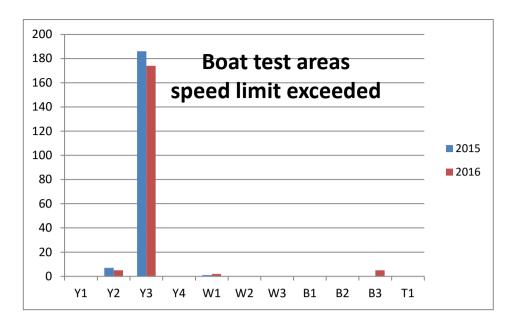
- 1.1 Boat testing at speeds in excess of the speed limit has existed formally on the Broads for over 36 years and informally for much longer. By virtue of the Great Yarmouth Port and Haven Commissioners "Norfolk Broads Speed Limit" Byelaws 1978, areas within the Broads river network were formally set aside for the testing, demonstrating and trial of vessels by bona fide boatyard businesses at speeds exceeding the defined speed limit.
- 1.2 The Great Yarmouth Port and Haven Commissioners "Great Yarmouth Port and Haven (River Speed Limits)(Vessels) Byelaws 1989 further added conditions to the 1978 byelaws including times when the areas could be used for the activity, additionally requirements for log books and display of registration marks were included.
- 1.3 The Broads Authority Speed Limit Byelaws 1992 repealed the above byelaws and generally replicated the requirements of the 1989 byelaws. The 1992 Byelaws sets out an exemption to the speed limits under byelaw 5 (2) b which enables boatyard vessels to use certain areas at certain times for the purposes of trial, demonstration or testing after repair.
- 1.4 These designated areas and times are set out in Schedule 3 of the Byelaws which in summary details 4 areas on the river Yare, 3 Areas on the river Waveney, 3 areas on the river Bure and 1 area on the river Thurne where this activity is permitted. See Appendix A.
- 1.5 In accordance with the requirements of the Speed Limit Byelaws boatyard operators are issued with registration marks and toll plaques on application known as "Trade Plates". A further requirement of this issue is that the boatyard must complete a log book supplied by the Authority on each occasion the trade plates are used.
- 1.6 The Port Marine Safety Code Hazard Review Action Plan 2011 identified that a review was to be completed following the assessment of hazard no. 002 "Powered Craft speeding".

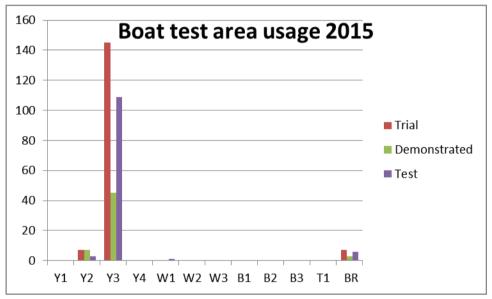
#### 2 Current Position

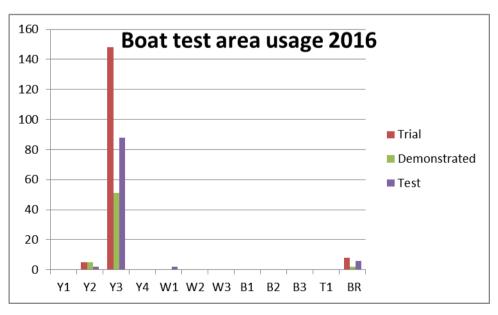
- 2.1 Following a review in 2014 a number of management options were developed. Late in 2014 new log books were developed which allow for the recording of a data which would assist further reviews. This new log book required the boatyard to additionally indicate which boat test area they had used, for what purpose and whether the speed limits were exceeded. The base data of who was at the helm, the owner, boat name date and time etc. were preserved.
- 2.2 These new log books were distributed in March 2015 to boatyards ready for the new season. The boatyards were also required to log in with Broads Control when they were intending to use the test areas for high speed testing or demonstrating.
- 2.3 During November and December 2015 and 2016 Broads Authority rangers visited boatyards to collect logbooks and / or the data therein to assist this review.
- 2.4 There were 72 trade plates and logbooks issued to boatyards by the Authority in 2015/16 and 65 issued in 2016/17 toll year. Not all of the boatyards would have intended to use the facility of testing/ demonstrating etc. at high speed as the trade plates have historically been used for moving boats around the system and to deliver boats to other areas.

# 3 Usage data

- 3.1 There were 194 occasions over the 2015 period where the zones were used for high speed activity and 186 occasions in 2016. Most of this activity was centred on the Yare 3 zone.
- 3.2 Breydon water was used on 10 occasions for boat testing in 2015 and on 12 occasions in 2016 however the data does not appear in the figure below as there is no speed limit set for Breydon water and the speed limit could not therefore have been exceeded.







# 4 Complaints

4.1 There have been no complaints registered by Broads Control relating to the activity of boat testing, trial or demonstration during the two year period.

#### 5. Bank Erosion

- 5.1 Whilst bank erosion is not routinely monitored Ranger observations have confirmed that there has been no issue with bank erosion over the years in the Yare 3 zone where the majority of the boat testing activity takes place.
- 5.2 However there are vulnerable areas on the north bank of Yare 3 where large trees are establishing themselves and blocking out the light which reduces the stand of reed. This lack of wash absorbing reed may makes these areas more susceptible to bank erosion from wash generated by boat testing and routine boating activities.
- 5.3 Rangers, the RSPB and a local sailing club are working together to remove these large trees so that the reed is given a chance to re-stablish in this area.

# **6** Future Management Proposals

- 6.1 It is clear that this facility is essential for the boating industry and whilst there is potential for conflict with other users of the river and adjacent land this needs to be balanced with the potential impact on the local economy if these test areas were to disappear.
- 6.2 It is therefore proposed not to change the current management and for the Rangers to continue to monitor both the use of the areas and the completion of log books via spot checks.

#### 7 Consultation

7.1 The Boat Safety Management Group was consulted on the proposals at its recent meeting on the 18<sup>th</sup> September 2017 and the Group was content with the current management arrangements in place.

Background papers: None

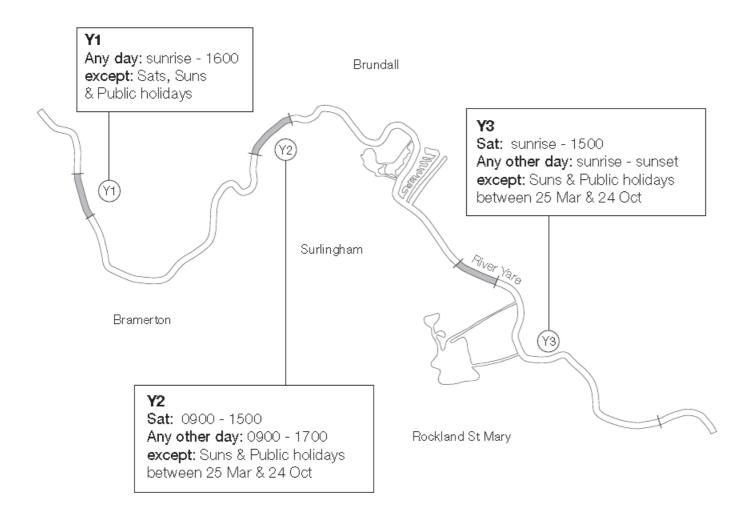
Author: Steve Birtles

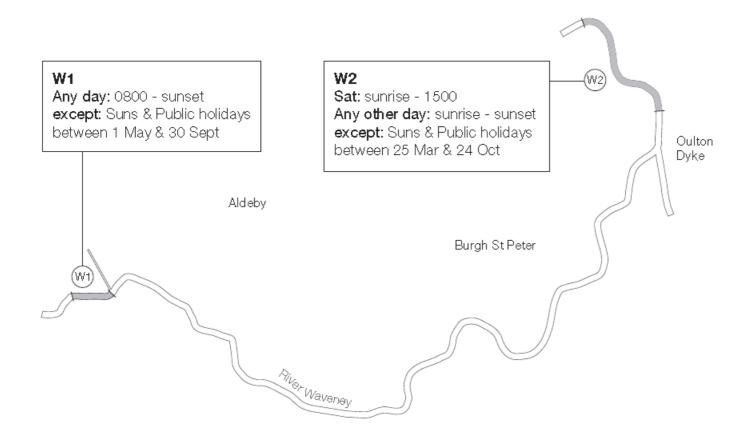
Date of report: 20 September 2017

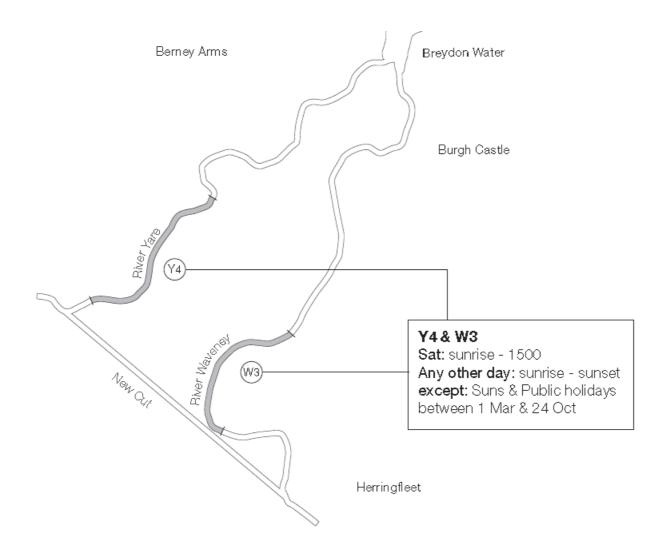
Broads Plan Objectives: 4.3 Implement, promote and monitor measures to maintain and

improve safety and security for the navigation and boats

Appendices: APPENDIX A – Maps of the Boat Test areas

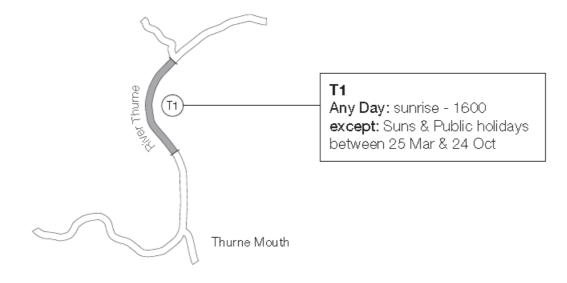


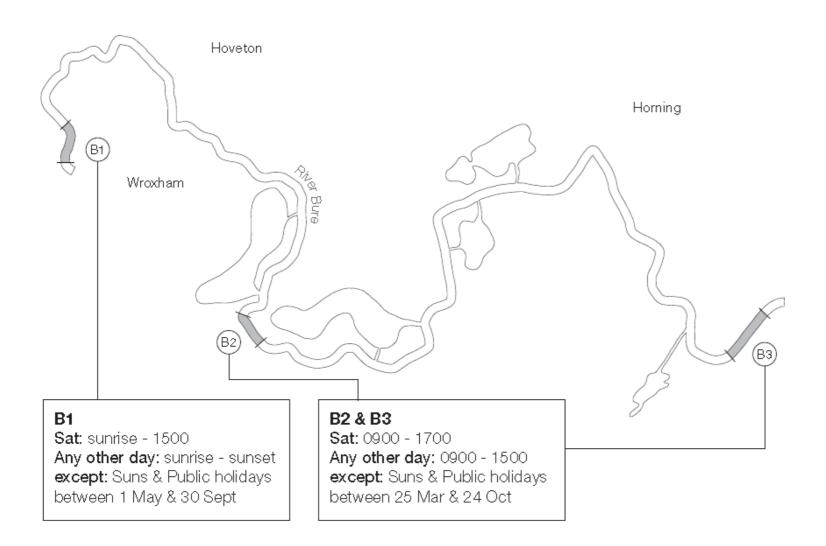




# Potterheigham

Ludham





# **Broads Authority Commercial Paddling Scheme**

Report by Head of Safety Management

#### **Summary:**

This report sets out the background to the Broads Authority Paddling Scheme and the proposals for updating the conditions for commercial operators and to include paddleboards.

Members' views are sought on the amendments and proposals for the conditions as set out in Appendix 1.

#### 1 Background

1.1 In April 2012, the Broads Authority published conditions relating to the concessionary toll for the Broads Authority Paddling Scheme (BAPS) for commercial operators. The conditions related to the hire of canoes and kayaks. Operators receive significant discounts on the standard Broads Authority toll for commercial canoe hire providing the operators are members of the scheme.

#### 2 Current Position

2.1 The scheme has worked well with operators complying with the conditions which have been demonstrated through regular audits by the Authority. This approach has therefore continued to encourage operators to offer canoes in their hire fleets to help with entry level participation in the Broads National Park. In the 2017/2018 toll year there were 176 canoes offered for hire under the BAPS scheme.

#### 3 Stand Up Paddle Boards

- 3.1 Interest in the sport of stand up paddle boarding has increased significantly over the recent years and currently there are two operators on the Broads network who are hiring out paddleboards but not benefiting from the concessionary toll. One of these operators are currently BAPS Scheme members offering canoes for hire.
- 3.2 Following a number of requests to include the stand-up paddle boards in the scheme the Authority is proposing to extend the concessionary toll to paddleboards providing the operators abide by the conditions of the toll. It is anticipated the new scheme will commence on 1<sup>st</sup> April 2018.
- 3.3 To avoid confusion with the original "Broads Authority Paddling Scheme" (BAPS) developed for voluntary groups it is proposed that the new scheme be named "Broads Authority Commercial Paddling Scheme"

#### 4 Conditions

- 4.1 The conditions relating to the old Commercial BAPS scheme have therefore been reviewed and amended to bring them up to date, to include specific conditions for stand up paddle board hire and to reflect the new name.
- 4.2 In developing the draft conditions the Broads Canoe Hire network, Stand Up Paddle Board Association and the Association of Surf instructors have been consulted.
- 4.3 The draft conditions are set out in Appendix A with amendments shown as tracked changes for transparency. The Authority consider that the conditions are pragmatic and proportionate to the risks encountered in hiring canoes, kayaks and stand up paddle boards.

#### 5 Consultation

- 5.1 All of the current BAPs scheme members, the Broads Canoe Hire network, Stand Up Paddle Board Association and the Association of Surf instructors have been consulted on the final draft conditions which closed on the 8<sup>th</sup> September 2017.
- 5.2 Responses were all supportive of the proposed conditions and only one suggested change came from the Association of Surf Instructors (ASI) who suggested that the condition relating to the provision of a leash which tethers the paddler to the board should be amended to a require a specific type of leash which is coiled and elasticated.
- 5.3 The Boat Safety Management Group considered the draft conditions and the proposal from the ASI and concluded that no amendment to the proposed conditions was necessary.

#### 6 Next steps

6.1 Final conditions will be communicated to the current members of the BAPS scheme in advance of the start of the 2018/19 toll year.

Background papers: None

Author: Steve Birtles

Date of report: 22 August 2017

Appendices: Appendix A – Draft Conditions Broads Authority Commercial Paddling

Scheme.



The Broads Authority Paddling Scheme CommercialThe Hire Canoe, Kayak

and Paddleboard The Broads Authority Commercial Paddling Scheme Operator

Formatted: Underline Formatted: Underline Formatted: Underline

#### **Conditions**

This document sets out the Hire Canoe, Kayak and Paddleboard scheme The Broads Authority Commercial Paddling Scheme Broads Authority Paddling Scheme (BAPS) Operator Conditions that need to be satisfied if a concessionary toll is to be granted by the Broads Authority.

The following definitions apply: -

"the Authority" means the Broads Authority

"the Operator" means the person or body to which the Hire Canoe, Kayak and

PaddleboardBroads Authority Paddling SchemeThe Broads Authority

Commercial Paddling Scheme Concessionary Toll has been issued. "the Vessel" -means a canoe-or-, kayak or paddleboard tolled under the BAPS

scheme

"Concessionary Toll" means the appropriate annual toll within a scale of tolls, currently in

force in any year, as prescribed by the Authority pursuant to Section

26 of the Harbours Act 1964

"Rescue Vessel" means a Vessel, whether mechanically powered or not, used for the

purpose of recovering hire Vessels.

#### **The Conditions**

- 1. A Vessel must not carry any number of persons or overall loading in excess of that recommended by the manufacturer.
- The Operator must hold and maintain throughout the period of this Toll 2. adequate Third Party Public Liability indemnity insurance cover.
- 3. The Operator must not cause or permit any Vessel to be let for hire in weather conditions which, at the time of the commencement of the hire, are likely to pose a threat to the safety of those on board the Vessel.
- The Operator must not hire any Vessel to any person or persons who are or 4. appear to be under the influence of alcohol or drugs at the time of the commencement of the hire.
- 5. The Operator must hold and maintain an adequate Adventure Activities Licensing Authority's (AALA) licence if providing licensable activities.
- 6. The Operator must on a regular basis carry out a suitable and sufficient assessment of the risks associated with the activity of hiring Vessels. The frequency of this assessment will depend on the nature of the risk but must be no less frequently than annually. This must include documented arrangements for the recovery of hirers in the event of significantly deteriorating weather conditions.
  - The Operator must promptly act upon the findings of any such assessment where a risk is identified.
  - The Operator must ensure that these assessments are fully documented and (c)

Formatted: Indent: Left: 0 cm,

Hanging: 3.75 cm

- 7. The Operator must keep proper records which show:
  - (a) When any Vessel has been hired out.
  - (b) The number of persons carried and details of the lead member of the party.
  - (c) The expected time of return.
  - (d) The emergency procedures to be implemented on the failure of a Vessel to return.
- 8. The Operator must make available for inspection, to any person authorised by the Authority for this purpose, any records required by this agreement.
- (a) A buoyancy aid or lifejacket, of an appropriate size and type, complying with the relevant European standard and fit for purpose must be provided for each member of the party.
  - (b) Each <u>buoyancy</u> aid or lifejacket provided must be identified with the operator's name and contact telephone number
  - (c) Operators of paddle boards shall supply a leash to prevent the hirer becoming separated from the paddle board
- Vessels shall be fitted with flotation so that the craft, empty of equipment and occupant but filled full of water, as near as practicable floats parallel to the surface in flat water, and is capable of supporting the occupants whilst holding on to it.
- 11 (a) Vessels and equipment must be maintained in sound condition and inspected prior to the issue for each hire period.
  - (b) The Operator must record in writing and retain records of all inspections, carried out under paragraph 11 (a)
- Each Vessel is to be marked on the exterior of the vessel with the Operator's name and also be uniquely numbered.
- 13 On each vessel the Operator must display on each side of the bow a valid tell-toll plaque.
  - 14 (a) Vessels shall only be operated in MCA Category A waters.
    - (b) Condition 14(a) does not apply in respect of operators who have gained permission in writing from the Authority and the Great Yarmouth Port Company to operate in non MCA Category A waters
  - (a) The Operator must ensure that their staff posses the competencies, qualifications and/or experience required for the discharge of their responsibilities. A full list of staff with qualifications and responsibilities must be available for inspection by the public. Any in-house assessments of staff competence must be monitored by persons appropriately qualified to undertake this role. by the Recognised relevant organisations are British Canoe UnionCanoeing -/2. Canoe England -, British Stand Up Paddle Association and Academy of Surf Instructors. to undertake this role.
    - (b) The Operator must ensure that their staff receive refresher training no less than annually, records of all training must be kept and must be available for inspection by the Authority.
  - 16. (a). The Operator must ensure that before using a Vessel all members of the hire party are given:

(i) An appropriate briefing based on Health and Safety Executive guidance set out in the "Glasbury Protocol for River Craft Hire Companies" ref IGN6.17—which must include advising the hirer of:

Zones, routes, obstacles, commercial vessels, bridges, rules of the navigation and where necessary provide a map showing access, egress, distances, locations of specific hazards and prominent features and emergency access points and contacts.

- (ii) A proper demonstration on how to fit, wear and use the buoyancy aids or lifejackets provided with the Vessel.
- (iii) An instruction on how to safely board and leave the Vessel and the need for keeping the Vessel stable at all times.
- (b) The Operator must record in writing and retain details of all briefings, demonstrations, and instructions given under paragraph 16 (a).
- (c) The Authority will be entitled to carry out sample audits of the handover arrangements referred to in paragraph 16 (a).
- (d) (i) Paddleboards shall not be hired individuals intending to paddle alone
  - (ii) 16 (d)(i) does not apply where the hirer holds the following minimum qualifications:
    - a) British Stand Up Paddleboard Association Level 1 Ready to Ride b) Association of surf Instructors - Supwise Level 1 Enclosed Flat Water
- 17. If any changes occur in the ownership or particulars of any Vessel during the toll period, the Operator must give written notice of such change(s) to the Authority within 14 days of the change(s).
- 18. (a) The Operator must report to the Broads Authority and the appropriate local Authority in writing, and as soon as is reasonably practicable, (and in any case within seventy-two hours of the Operator becoming aware of it, the occurrence of any accident involving the Vessel.
  - (b) For the purposes of paragraph 18(a), an accident means an incident resulting in loss of life, or major injury, or serious damage to property or another vessel
  - (c) For the purposes of paragraph 18(b) Major Injury means:
    - (i) any fracture, other than to a finger, thumb or toe
    - (ii) any loss of a limb or part of a limb
    - (iii) dislocation of the shoulder, hip, knee or spine
    - (iv) loss of sight, whether temporary or permanent
    - (v) penetrating injury to the eye
    - (vi) any other injury leading to hypothermia or unconsciousness
    - (vii) any other injury requiring resuscitation
    - (viii) any other injury requiring admittance to a hospital or other medical facility as an inpatient for more than 24 hours
- 19 The Operator must maintain a Rescue Vessel for the recovery or rescue of their Vessels
- 20. The Authority may suspend or revoke the concessionary toll in the event of any breach of any of these conditions if the Authority considers it is necessary or desirable in the interests of the public, whereby the full commercial toll will become

Formatted: Indent: Left: 1.25 cm,

Hanging: 1.25 cm

Formatted: Indent: Left: 2.55 cm, Hanging: 1.26 cm

Formatted: Indent: Left: 1.27 cm

Formatted: Indent: Left: 0 cm

due.

- 21. The Toll plaques issued under this concession must be returned to the Authority within 7 days if:
  - (a) The Operator has ceased the activity for which the Licence has been granted or
  - (b) The Authority has revoked the concessionary Toll.
  - 22. The concessionary toll is personal to the Operator and is not transferable except with the written permission of the Authority.
  - 23. The Authority reserves the right to modify, alter, revoke or add to these conditions, should it be necessary or desirable in the interests of the public to do so. Such variations will have effect as and when specified by the Authority.

Version <del>1.1 \_\_\_ 2.2</del> 2017 4

2118 April August

Broads Authority
Navigation Committee
19 October 2017
Agenda Item No 12

# 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 2017/18

Construction, Maintenance and Environment Section work programme

to date.

#### 1 Construction Programme update

- 1.1 The progress of the Construction and Maintenance work programme is described in this report. The detailed breakdown in Appendix 1 shows that up to the end of September 2017, 28,490 m³ of dredged sediment has been removed from the prioritised sites. This represents 54% of the programmed target of 53,000m³.
- 1.2 Dredging on the Lower Bure between Stokesby and Runham has continued throughout August and September. Arisings have been placed along sections of floodbank where re-use can be made for flood management purposes as and when required. At Oulton Broad, active dredging resumed in September, with arisings going into the Authority's lagoon area at Horseshoe Point on Oulton Dyke. This is planned to be the last significant deposit of arisings into this area as capacity has been reached. The restoration plan in place aims to create a reed dominated site, with a channel and small open water area which can connect to Oulton Dyke. Subsequent dredging work in Oulton Broad is currently being discussed with Suffolk Wildlife Trust and a potential future partnership whereby the benefits of floodbank maintenance and habitat creation using dredge material can be realised, on their land on the Carlton Marshes side of Oulton Dyke.
- 1.3 New equipment brought into service includes the fourth complete Linkflote pontoon. This large work platform enables excavators to dredge from a stable base, utilising spud legs that can be raised and lowered to hold the unit steady in any depth of water. The Authority's fourth long reach excavator is due to arrive by the end of October, and this will mean the long planned for move from grab crane dredging to hydraulic excavators will be complete. This also means Grab 10 and its barge will be taken out of commission and scrapped. The latter is over 100 years old. There is also the opportunity to sell one of the RB 22 crawler cranes now surplus to requirements.
- 1.4 Planning and preparation for the remainder of this winter's dredging work continues. Landowner agreement finalisation and lagoon creation ahead of mudpumping at Hickling Broad will be completed in October. Other dredging

tasks on the River Chet and Limekiln Dyke will be disruptive to river traffic for the period of work on these locations with narrow channels. More information on the restriction for the River Chet can be found here: <a href="http://www.broads-authority.gov.uk/">http://www.broads-authority.gov.uk/</a> data/assets/word\_doc/0016/1016611/NTM-10-of-2017-River-Chet.dotx

and the Close of the Limekiln Dyke here: <a href="http://www.broads-authority.gov.uk/">http://www.broads-authority.gov.uk/</a> data/assets/word doc/0005/1016609/NTM-9-of-2017-Limekiln-Dyke.dotx

1.5 Fen maintenance work using the Authority's JCB exactor on wide bog tracks and the fen harvester has begun in earnest. Dyke clearance work has started on management agreement sites and at How Hill in the Ant valley. One of the Linkflote pontoons will be used to transport the JCB excavator across the River Ant at How Hill. The fen harvester has completed work at How Hill and Buckenham Marshes, is currently working under contract to a landowner in the Bure Broads & Marshes SSSI and will be heading to Whitlingham Marsh.

# 2 Maintenance Programme Update

- 2.1 The new stretch of 24 hour mooring at Berney Mill is now open to the public to full Authority safety specifications. This upstream stretch adds to the existing length of 24 hour mooring at Berney Arms Reach.
- 2.2 Weed harvesting on the public navigation has continued all the way through September. In the southern rivers, both the upstream sections of the Yare and Waveney have had two cuts. There has been a rotation for the weed harvester vessel in the northern rivers between the upper sections of the Bure, Ant and Thurne. The marked channel through Hickling Broad has had a second cut. Within Hickling, the approaches to Catfield Dyke were the areas of greatest growth. The marker buoys indicating this channel were also repositioned to more accurately mark the slightly deeper water and area that was cut to standard specification. Please see the Environmental Standard Operating Procedure for more information in this routine cutting <a href="http://www.broads-authority.gov.uk/">http://www.broads-authority.gov.uk/</a> data/assets/pdf file/0005/493115/1-Cutting-Water-Plants-ESOP.pdf
- 2.3 The biomanipulation ring in Ranworth Broad, installed just over five years ago by the Authority has come to the end of its consented life and has been removed by the Maintenance Team. The fish barrier structure demonstrated the ability to generate clear water and water plant growth with relatively little intervention. The Norfolk Wildlife Trust trip boat from Ranworth made the clear water area part of its tour for the visiting public.
- 2.4 During September and October, the majority of the Maintenance Team are engaged in various fen management tasks across the range of sites the Authority is involved with. Tasks typically include scrub clearance and fen mowing, filling in the gaps with volunteers, where the fen harvester cannot work and where the commercial reed & sedge cutters don't extract a high value crop.

# 3 Environment & Design Team update

- 3.1 Monitoring of the stonewort cutting trials in Hickling Broad is on-going, with repeat surveys of the cut areas having been repeated one and two months after cutting. The initial look at the first round of results shows that it is too soon to predict impacts upon plant vigour or sensitivity to cutting between species. The final survey of this season is planned for early October in which plant height, species composition and plant fertility will be measured. Once all this data is in and interim report will be produced over the winter.
- 3.2 For the riverside tree management the final site details and who is going to complete the work this winter has been completed. Contractors, operations technicians, rangers and volunteer groups are all tasked with work across priority sites throughout the Broads. The Broads Authority website will soon have a page providing the map locations of this work and a summary report explaining the aims of the work and the prioritisation process.
- 3.3 Mitigation and project planning for all of the current and future dredge jobs is a continual timetabled activity for the Rivers Engineer and Environment Officers. Over the summer breeding birds, reptiles and water voles have all been taken into consideration when carrying out preparatory works and during the sediment placement and treatment at riverside locations. Pre-works checks at locations along the Lower Bure have been completed ahead of work later this year. The team are now also starting to plan out work for next spring as many sites need a minimum of six month lead in time (some up to year in advance) to adequately consider the risks to wildlife on the sites where we work.

#### 4 CANAPE project

4.1 As lead partners, the Authority has organised on 10th & 11th October a Kick-Off meeting for all the CANAPE partners and the Interreg North Sea Region project advisors. The agenda is dominated by the agreement and preparation of the documents that will assist us in the governance of the project over the next few years. The range of documents to progress and agree includes a Partnership Agreement; Communications Strategy; Rules of Procedure; Project Contacts; and a timetable of national workshops and activities. Day two includes site visits to see some previous and current projects touching on similar wetland harvest and sustainable peatland themes.

Background papers: Nil

Author: Dan Hoare Date of report: 2 October 2017

Broads Plan ref: 2.1; 2.3; 3.1; 3.2; 4.2; 6.1

Appendices: APPENDIX 1 – Dredging Progress 2017/18

# Dredging Progress 2017/18 (April 2017 to end July 2017)

#### **APPENDIX 1**

Project Title	Project Element	Active BA dredging weeks Completed (to end	Volum Remov m³	-	Annual project Cost <sup>a</sup>	Actual project cost (Apr-Jul)
		July / Planned)	Planned	Actual	Planned	Actual
Haddiscoe Cut	Reedham End (Mar)	1/1	500	670	5,600	3,870
Sediment into se	etback areas on the River Yare upstream of Reedham					
Lower Bure	Phase 1. Stokesby to Three Mile House (Apr-Sep); Phase 2. Three Mile House to Marina Quay (Sep-Dec)	22 / 36	18,000	12,770	222,400	106,680
Use of ronds ag	ain for dewatering and a second location using a concrete p	nump to move sedim	ent to the fo	olding behir	nd the floodba	nk
Oulton Broad	Phase 1 - North Bay (Apr-Aug); Phase 2 - North Bay (Sep-Oct)	17 / 22	16,000	15,050	104,800	70,080
Suffolk Wildlife	Trust setback area and Authority's own sediment lagoon be	ing filled at Horsesh	oe Point			
Bure Mouth	Use of plough dredging to clear bars (Oct)	Contractor	2,000	-	15,000	710
Subject to conse	ent decision from Natural England for the submitted 10 year	plan for navigation	channel mai	nagement i	n Breydon Wa	ater SSSI
Hickling Broad	Mudpumping marked channel in North Bay (Nov-Feb)	Contractor	6,000	-	69,300	21,060
Use of sediment	t for arable benefit. Awaiting issue of the Environmental Per	mit from the Enviror	nment Agend	cy. £30k fro	m NPG.	
Limekiln Dyke	Gaye's Staithe to Neatishead Staithe (Nov-Jan)	0 / 12	3,500	-	33,300	230
Sidecasting mat	erial to the bank clear of trees last year					
River Chet	Shoals near Hardley Flood (Jan-Mar)	0 / 12	4,000	-	22,300	90
Sidecasting to p	rovide additional material onto the weak/low sections of rive	erbank				
Mid Bure	Thurne Mouth (Mar)	0 / 4	3,000	-	28,400	250
Priority shoals in	Thurne Mouth area					
Site restoration	Rockland, Acle, Hickling	-	-	-	21,190	22,270
Restoration of d	redge sites from work in 2016/17. Rockland Dyke restoration	n completed				
TOTAL		40 / 87	53,000	28,490	522,290	225,240

<sup>&</sup>lt;sup>a</sup> –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.

Broads Authority
Navigation Committee
19 October 2017
Agenda Item No 13

# Planning Application with Navigation Implications: Change of Use to Mixed Use Moorings Thorpe River Green Thorpe St Andrew

Report by Planning Officer

Summary:

A planning application has been submitted in respect of the moorings along the frontage of the River Green in Thorpe. The proposal seeks the change of use of the existing short stay moorings to provide private (non-residential) moorings, short stay moorings and commercial moorings.

#### 1 Background

- 1.1 The moorings along the frontage of Thorpe River Green were historically leased to the Broads Authority for many years as short term moorings. However in 2016 the Broads Authority took the decision to end the lease. The moorings reverted back to Thorpe Town Council in early 2017.
- 1.2 Thorpe Town Council has developed the zoning areas for moorings along the River Green frontage to generate income towards the upkeep of the site and the moorings. The application follows pre-application discussions with officers of the Broads Authority.

# 2 The Planning Application

- 2.1 The site of this application is Thorpe River Green, which is situated in Thorpe St Andrew. The Green adjoins Yarmouth Road to the south and has a 218m frontage along the River Yare. Access to this stretch of the River Yare is constrained by the railway bridges at either end of Thorpe Island.
- 2.2 Thorpe River Green is used as an area of green open space and contains the war memorial and a number of paths and benches for quiet recreation. There are currently a number of mooring posts along the river frontage of the Green and safety chains and ladders have already been added along this length to be used in association with the moorings.
- 2.3 Planning permission is being sought by the Town Council to divide up the existing moorings along the river frontage for different purposes. The 43m at the eastern end of the Green, closest to the public toilets and including the ferry crossing point from Thorpe Island, would be designated for commercial moorings. The 75m in the central area would be designated as short stay moorings and the 100m situated at the western end of the Green would be for

private lease. The private mooring agreements would restrict car parking within 1 mile of the River Green, except in Town Council owned car parks. At least 6 car parking spaces have been made available by the Town Council for this usage. All moorings would be alongside moorings and not stern on.

# 3 Navigation Issues

- 3.1 The Broads Authority consults the Committee on planning applications which may significantly affect the use or enjoyment of the whole or any part of the navigation area. The following point is considered to be of interest to the Navigation Committee:
  - i) Impact on river width and use The alterations to the use of the moorings will result in some boats being moored for longer periods of time along this stretch of the river and also a stretch of the frontage being used by commercial operators.

#### 4 Conclusions

4.1 Member's views on this application are sought and any matters of relevance to navigation that Members wish to be considered as part of the planning process are welcomed.

Background papers: BA/2017/0309/CU

Author: Alison Cornish
Date of report: 18 September 2017

Appendices: APPENDIX A – Site Location Plan

#### **APPENDIX A**



# Navigation Income and Expenditure: 1 April to 31 August 2017 Actual and 2017/18 Forecast Outturn

Report by Chief Financial Officer

Summary:

This report provides the Committee with details of the actual navigation income and expenditure for the five month period to 31 August 2017, and provides a forecast of the projected expenditure at the end of the financial year (31 March 2018).

#### 1 Introduction

1.1 This report provides a summary of the Income and Expenditure for the Navigation Budget up until 31 August, any amendments to the Latest Available Budget (LAB), Forecast Outturn (predicted year end position) and the movements on the earmarked reserves.

# 2 Overview of Actual Income and Expenditure

Table 1 – Actual Navigation I&E by Directorate to 31 August 2017

	Profiled Latest Available Budget	Actual Income and Expenditure	Actual Variance
Income	(3,056,490)	(3,131,915)	+ 75,425
Operations	1,031,946	1,137,324	- 105,378
Planning and			
Resources	273,592	245,693	+ 27,899
Chief Executive	235,040	229,896	+ 5,143
Projects, Corporate Items and Contributions from			
Earmarked Reserves	(75,637)	(50,832)	- 24,805
Net (Surplus) / Deficit	(1,591,550)	(1,569,833)	- 21,716

- 2.1 Core navigation income is above the profiled budget at the end of month five. The overall position as at 31 August 2017 is an adverse variance of £21,716 or 1.36% difference from the profiled LAB. This is principally due to:
  - An overall favourable variance of £78,774 within toll income:
    - o Hire Craft Tolls £48,393 above the profiled budget.
    - Private Craft Tolls £28,351 above the profiled budget.
  - An overspend within Operations budgets relating to:

- Water Management is under profile by £22,080 due to outstanding Natural England consent.
- Practical Maintenance is over profile by £168,902 due to timing differences on the profile originally set. This due to Acle Bridge being purchased.
- Rangers is under profile by £15,174 due additional income and timing differences on expenditure.
- Premises is under profile by £19,965 due timing differences around the Dockyard Wet Shed repairs.
- An underspend within Planning and Resources budgets relating to:
  - Visitor Centres and Yacht Stations is under profile by £13,384 due to higher than predicted income and salary savings.
- An adverse variance within Reserves relating to the timing differences around the Dockyard Wet Shed repairs.
- 2.2 The charts at Appendix 1 provide a visual overview of actual income and expenditure compared with both the original budget and the LAB.

# 3 Latest Available Budget

3.1 The Authority's income and expenditure is monitored against the latest available budget (LAB) for 2017/18. The LAB is based on the original budget for the year, with adjustments for known and approved budget changes such as carry-forwards and budget virements. Full details of movements from the original budget are set out in Appendix 2.

Table 2 – Adjustments to Navigation LAB

	Ref	£
Original navigation budget 2017/18 (surplus)	Item 12	(766)
Original havigation budget 2017/10 (surplus)	27/01/17	(100)
Approved carry-forwards from 2016/17	Item 11	8,995
Approved carry-torwards from 2010/17	19/05/17	0,995
Virement from ASS to OMA to reflect actual admin	CEO	(474)
support	approved	(474)
LAB at 31 August 2017		7,755

3.2 The LAB therefore provides for a navigation deficit of £7,755 in 2017/18 as at 31 August 2017.

#### 4 Overview of Forecast Outturn 2017/18

- 4.1 Budget holders have been asked to comment on the expected expenditure at the end of the financial year in respect of all budget lines for which they are responsible. It must be emphasised that these forecast outturn figures should be seen as estimates and it is anticipated that they will continue to be refined and clarified through the financial year.
- 4.2 As at the end of August 2017, the forecast outturn indicates:

- The total forecast income is £3,236,961, or £57,461 more than the LAB.
- Total expenditure is forecast to be £3,219,829.
- The resulting surplus for the year is forecast to be £17,132.
- 4.3 The forecast outturn expenditure reflects the following changes from the LAB as shown in Table 3. The forecast surplus represents a favourable variance of £24,887 against the LAB.

Table 3 – Adjustments to Forecast Outturn

	£
Forecast outturn deficit per LAB	7,755
Adjustments reported 07/09/17	(39,429)
Increase to Hire Craft Toll income	(3,038)
Increase to Private Craft Toll income	(15,000)
Increase to Moorings for Purchase of Acle Bridge	30,000
Decrease to Volunteers due to Celebration day being held	
every other year	(800)
Increase to Collection of Tolls salaries following minor change	
in structure	3,380
Forecast outturn surplus as at 31 August 2017	(17,132)

4.4 The main reason for the difference between the forecast outturn and the LAB is the increase in hire and private craft toll income and the increase in moorings expenditure.

#### 5 Reserves

Table 4 – Navigation Earmarked Reserves

	Balance at 1 April 2017	In-year movements	Current reserve balance
	£	Ð	£
Property	(305,051)	(30,500)	(335,551)
Plant, Vessels			
and Equipment	(199,010)	(31,888)	(230,899)
Premises	(85,753)	(15,626)	(101,379)
Total	(589,815)	(78,014)	(667,829)

5.1 Items funded from the Property reserve at the end of August include the repairs to Irsead Billet whilst the items funded from the Plant, Vessel and Equipment reserve include the linkflotes.

#### 6 Summary

6.1 The current forecast outturn position for the year suggests a surplus within the navigation budget which would result in a navigation reserve balance of

approximately £343,000 at the end of 2017/18 (before any year-end adjustments). This would mean the Navigation Reserve would be slightly above the recommended 10% at 10.7%. Year-end transfers of interest to the earmarked reserves will mean that it will fall to approximately 10.5%. This will be highly dependent on the actual level of interest received.

Background Papers: Nil

Author: Emma Krelle
Date of Report: 2 October 2017

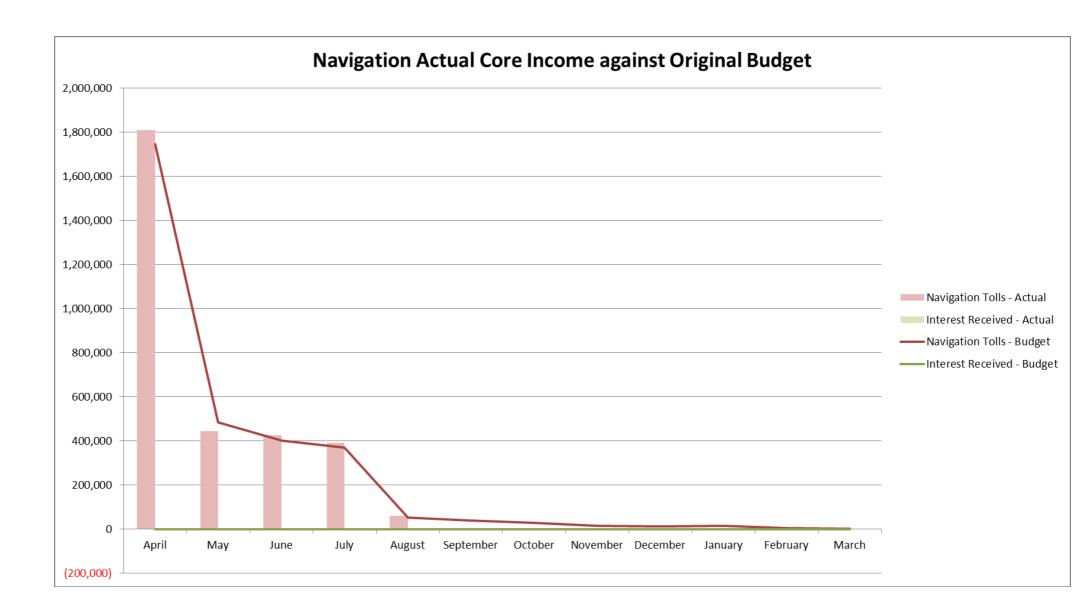
Broads Plan Objectives: None

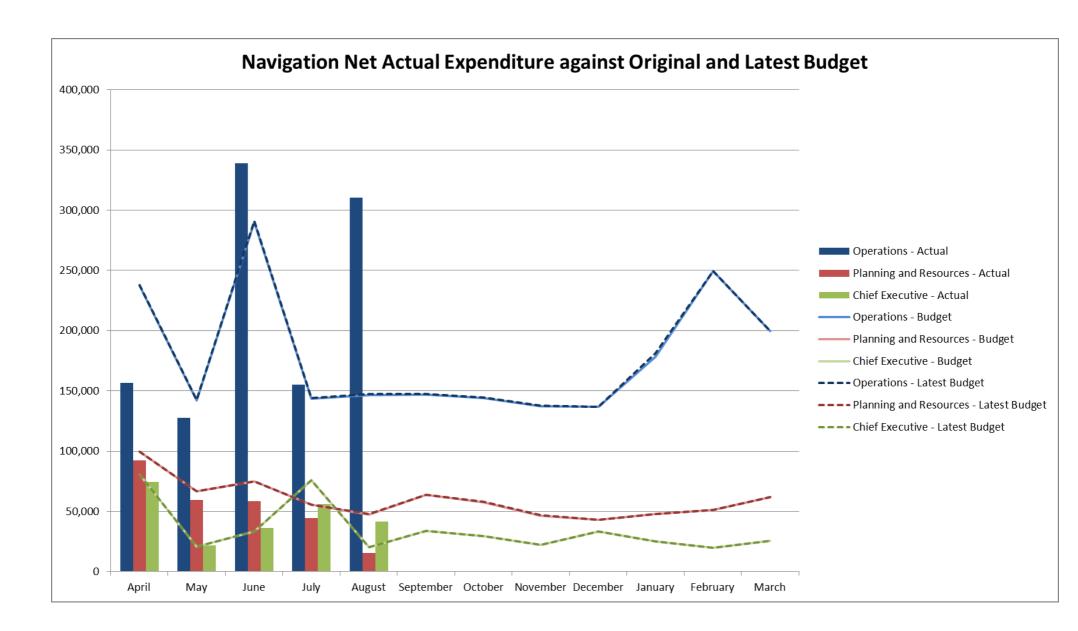
Appendices: APPENDIX 1 – Navigation Actual Income and Expenditure

Charts to 31 August 2017

APPENDIX 2 - Financial Monitor: Navigation Income and

Expenditure 2017/18





To 31 August 2017

Budget Holder (All)

	Values				
Row Labels	Original Budget (Navigation)	Budget Adjustments (Navigation)	Latest Available Budget (Navigation)	Forecast Outturn (Navigation)	Forecast Outturn Variance (Navigation)
Income	(3,179,500)		(3,179,500)	(3,236,961)	+ 57,461
National Park Grant	0		0	0	+ 0
Income	0		0	0	+ 0
Hire Craft Tolls	(1,073,400)		(1,073,400)	(1,115,861)	+ 42,461
Income	(1,073,400)		(1,073,400)	(1,115,861)	+ 42,461
Private Craft Tolls	(2,040,000)		(2,040,000)	(2,055,000)	+ 15,000
Income	(2,040,000)		(2,040,000)	(2,055,000)	+ 15,000
Short Visit Tolls	(39,800)		(39,800)	(39,800)	+ 0
Income	(39,800)		(39,800)	(39,800)	+ 0
Other Toll Income	(18,800)		(18,800)	(18,800)	+ 0
Income	(18,800)		(18,800)	(18,800)	+ 0
Interest	(7,500)		(7,500)	(7,500)	+ 0
Income	(7,500)		(7,500)	(7,500)	+ 0
Operations	2,288,320	2,192	2,290,512	2,326,712	- 36,200
Construction and Maintenance Salaries	744,102		744,102	744,102	+ 0
Income	(3,094)		(3,094)	(3,094)	+ 0
Salaries	747,196		747,196	747,196	+ 0
Expenditure			0		+ 0
Equipment, Vehicles & Vessels	348,250		348,250	348,250	+ 0
Income			0		+ 0
Expenditure	348,250		348,250	348,250	+ 0
Water Management	112,500		112,500	112,500	+ 0
Expenditure	112,500		112,500	112,500	+ 0
Land Management	0		0	0	+ 0
Income	0		0	0	+ 0

Row Labels	Original Budget (Navigation)	Budget Adjustments (Navigation)	Latest Available Budget (Navigation)	Forecast Outturn (Navigation)	Forecast Outturn Variance (Navigation)
Expenditure	0		0	0	+ 0
Practical Maintenance	358,200	2,565	360,765	390,765	- 30,000
Income	(10,500)		(10,500)	(10,500)	+ 0
Expenditure	368,700	2,565	371,265	401,265	- 30,000
Ranger Services	446,274	4,380	450,654	450,654	+ 0
Income	(76,278)		(76,278)	(76,278)	+ 0
Salaries	374,052	4,380	378,432	378,432	+ 0
Expenditure	148,500		148,500	148,500	+ 0
Pension Payments			0		+ 0
Safety	75,671		75,671	82,671	- 7,000
Income	(9,000)		(9,000)	(2,000)	- 7,000
Salaries	45,046		45,046	45,046	+ 0
Expenditure	39,625		39,625	39,625	+ 0
Volunteers	27,520		27,520	26,720	+ 800
Income	(400)		(400)	(400)	+ 0
Salaries	19,920		19,920	19,920	+ 0
Expenditure	8,000		8,000	7,200	+ 800
Premises	135,119	(6,055)	129,064	129,064	+ 0
Income	(1,600)		(1,600)	(1,600)	+ 0
Expenditure	136,719	(6,055)	130,664	130,664	+ 0
Operations Management and Administration	40,685	1,302	41,987	41,987	+ 0
Income	(1,143)		(1,143)	(1,143)	+ 0
Salaries	34,828	1,302	36,130	36,130	+ 0
Expenditure	7,000		7,000	7,000	+ 0
Planning and Resources	580,216	2,050	582,266	584,639	- 2,374
Development Management	0	0	0	0	+ 0
Income	0		0	0	+ 0
Salaries	0		0	0	+ 0
Expenditure	0	0	0	0	+ 0

Row Labels	Original Budget (Navigation)	Budget Adjustments (Navigation)	Latest Available Budget (Navigation)	Forecast Outturn (Navigation)	Forecast Outturn Variance (Navigation)
Pension Payments			0		+ 0
Strategy and Projects Salaries	26,635		26,635	26,635	+ 0
Income	0		0	0	+ 0
Salaries	24,835		24,835	24,835	+ 0
Expenditure	1,800		1,800	1,800	+ 0
Biodiversity Strategy	0	0	0	0	+ 0
Income			0		+ 0
Expenditure	0	0	0	0	+ 0
Strategy and Projects			0		+ 0
Expenditure			0		+ 0
Human Resources	53,542	2,050	55,592	55,592	+ 0
Salaries	29,147		29,147	29,147	+ 0
Expenditure	24,395	2,050	26,445	26,445	+ 0
Waterways and Recreation Strategy	47,210		47,210	47,210	+ 0
Salaries	38,210		38,210	38,210	+ 0
Expenditure	9,000		9,000	9,000	+ 0
Project Funding	0		0	0	+ 0
Expenditure	0		0	0	+ 0
Pension Payments			0		+ 0
Communications	80,813	0	80,813	80,813	+ 0
Income	(1,360)		(1,360)	(1,360)	+ 0
Salaries	71,673		71,673	71,673	+ 0
Expenditure	10,500	0	10,500	10,500	+ 0
Pension Payments			0		+ 0
Visitor Centres and Yacht Stations	75,765		75,765	75,765	+ 0
Income	(60,000)		(60,000)	(60,000)	+ 0
Salaries	111,765		111,765	111,765	+ 0
Expenditure	24,000		24,000	24,000	+ 0
Collection of Tolls	128,550		128,550	131,930	- 3,380

Row Labels	Original Budget (Navigation)	Budget Adjustments (Navigation)	Latest Available Budget (Navigation)	Forecast Outturn (Navigation)	Forecast Outturn Variance (Navigation)
Salaries	115,850		115,850	119,230	- 3,380
Expenditure	12,700		12,700	12,700	+ 0
ICT	100,604		100,604	99,597	+ 1,007
Salaries	59,849		59,849	59,849	+ 0
Expenditure	40,755		40,755	39,749	+ 1,007
Planning and Resources Management and Administration	67,097		67,097	67,097	+ 0
Income	(458)		(458)	(458)	+ 0
Salaries	43,785		43,785	43,785	+ 0
Expenditure	23,769		23,769	23,769	+ 0
Chief Executive	419,677	3,415	423,092	423,092	+ 0
Legal	27,503		27,503	27,503	+ 0
Income			0		+ 0
Salaries	15,503		15,503	15,503	+ 0
Expenditure	12,000		12,000	12,000	+ 0
Governance	41,065	0	41,065	41,065	+ 0
Salaries	23,938		23,938	23,938	+ 0
Expenditure	17,127	0	17,127	17,127	+ 0
Chief Executive	43,911		43,911	43,911	+ 0
Salaries	43,911		43,911	43,911	+ 0
Expenditure			0		+ 0
Asset Management	72,267	3,415	75,682	75,682	+ 0
Income	(2,670)		(2,670)	(2,670)	+ 0
Salaries	23,562	(1,775)	21,787	21,787	+ 0
Expenditure	51,375	5,190	56,565	56,565	+ 0
Finance and Insurance	164,840		164,840	164,840	+ 0
Income	(3,245)		(3,245)	(3,245)	+ 0
Salaries	74,085		74,085	74,085	+ 0
Expenditure	94,000		94,000	94,000	+ 0
Premises - Head Office	70,091		70,091	70,091	+ 0

Row Labels	Original Budget (Navigation)	Budget Adjustments (Navigation)	Latest Available Budget (Navigation)	Forecast Outturn (Navigation)	Forecast Outturn Variance (Navigation)
Expenditure	70,091		70,091	70,091	+ 0
Projects and Corporate Items	30,720		30,720	24,720	+ 6,000
Partnerships / HLF	0		0	0	+ 0
Income	0		0	0	+ 0
Salaries	0		0	0	+ 0
Expenditure	0		0	0	+ 0
Corporate Items	30,720		30,720	24,720	+ 6,000
Expenditure	6,720		6,720	720	+ 6,000
Pension Payments	24,000		24,000	24,000	+ 0
Contributions from Earmarked Reserves	(140,200)	865	(139,335)	(139,335)	+ 0
Earmarked Reserves	(140,200)	865	(139,335)	(139,335)	+ 0
Expenditure	(140,200)	865	(139,335)	(139,335)	+ 0
Grand Total	(766)	8,522	7,755	(17,132)	+ 24,887

Broads Authority
Navigation Committee
19 October 2017
Agenda Item No 15

## **Chief Executive's Report**

Summary:

This report summarises the current position in respect of a number of important projects and events, including any decisions taken during the recent cycle of committee meetings.

# 1. BA Follow up: 29 September 2017

Contact Officer/Broads Plan Objective: Sandra Beckett/None

#### 1.1. Riverside Tree and Scrub Management

At its meeting on 29 September 2017, the Authority received a similar presentation to the one Navigation Committee received at its meeting on 7 September 2017. Members fully appreciated the balance required when prioritising areas for tree and scrub maintenance in order to maintain navigation safety, wind quality whilst retaining environmental features and interests. They welcomed the easily understandable matrix and methodology that had been developed. In particular Members noted that much was dependent on working closely with landowners and acquiring their consent to work on the river bank. Being mindful of the sensitivities involved in implementation of any works, Members considered that communication with stakeholders, landowners and users of the network was vital in providing that understanding. The Head of Communications has taken this on board and publication of the information through articles and social media will be utilised and encouraged. The Authority welcomed and endorsed the report and work programme being adopted.

# 1.2. River Wensum Strategy Consultation

The Authority received a similar presentation to the one this Committee was given at its last meeting. They noted that the Navigation Committee had been heartened by the potential opportunities, had applauded the vision and were hopeful of its delivery although had some concerns over funding. Members were assured that the delivery of the project would be in small steps, building on the success of each element, and using funds from each of the partners. The Authority would be able to provide funds from its project delivery pot. Reference was made to the issues relating to the rail bridge as well as the opportunities for de-masting moorings on the downstream side of Carrow Bridge.

Members welcomed the approach as they considered that the strategy presented a real opportunity to deliver a wide range of social, environmental and recreational benefits for the City through partnership working particularly through enhancements to land and water access by

using the river corridor, given that it was such an important asset to the area. The Authority endorsed the vision and objectives of the draft strategy and its action plan and agreed that the comments on the proposed contents be referred to the strategy working group.

It was noted that the working group for the Strategy would be meeting in the week beginning 2 October 2017. Following consultation, the Authority will receive the comments and final report for adoption.

#### 1.3. Broads Local Plan

Members of the Authority were provided with a track changed version of the Local Plan illustrating the changes that had been made since the Planning Committee and Navigation Committee meetings as well as a clean copy that will serve as the publication version for consultation. They were also provided with the Sustainability Appraisal, Habitat Regulation Assessment and the Response Form and Guidance, which will accompany the Local Plan for consultation.

Members were informed of the Navigation Committee's expressed preference for a specific objective to address navigation and that the Planning Committee had discussed this in great depth but concluded that due to the generic wording in objective 14 of the Local Pan this was adequate and no change was made. Members wished to thank the Navigation Committee for encouraging a review on this, but they believed that the current objective within the plan was comparable to that proposed by the Navigation Committee and was appropriate. An explanation of the Planning Committee's decision was provided to the Chairman of the Navigation Committee and accepted. This was also accepted by the Authority.

The Authority agreed that the Local Plan should proceed to presubmission consultation subject to understanding the impacts on the Local Plan of the final versions of the Gypsy and Traveller, Travelling Show People, Caravan and residential mooring accommodation needs study and the Strategic Flood Risk Assessment. The final decision to go to presubmission consultation will be made by the Chief Executive, Chair of Planning Committee and Chair of Full Authority on the basis that any changes arising as a result of these studies are technical in detail and do not materially alter the policies of the Local Plan.

The pre-submission consultation will be the final stage before examination by the planning inspector. It is likely that the consultation will commence at the end of October/beginning of November 2017 for 6 weeks. Members will be informed of the drop in sessions. It is anticipated that the Local Plan may be ready for adoption by Summer 2018.

#### 1.4. Peer Review Update

The Authority received a progress report on the preparations for the Peer

Review taking place between the 10<sup>th</sup> and 12<sup>th</sup> October 2017.

#### 2. Anti-Social Behaviour

Contact Officer/Broads Plan Objective: John Packman

A working group established by the Broads Authority met on the 4<sup>th</sup> October to examine the whole issue of anti-social behaviour. The group included members of the Broads Authority and representatives of Broads Beat, the Hire Boat Federation and the Norfolk & Suffolk Boating Association. They agreed that the vast majority of boaters, both private and hirers, on the Broads act responsibly and do not encounter issues of poor behaviour whilst enjoying our National Park.

There was a collective acceptance however that the Broads is not immune to the challenges of anti-social behaviour experienced in many other areas and there are some instances that are not limited to hirers of boats or any particular group (such as 'stag' parties) which attract the attention of the media and are reported on social media.

The Group agreed a number of actions including to:

- Investigate increased Ranger and Broads Beat presence in the evenings
- Expand the current 'Super Safety days' programme to evenings
- Work with the industry to encourage limiting the maximum speed of hired day-boats
- Increase the level of communication between Broads Authority Rangers, Broads Beat and boat hire companies to share intelligence about groups that are causing problems
- Investigate the purchase of mobile speed signs to build on trials which took place this summer

## 3. Navigation Patrolling and Performance Targets

Contact Officer/Broads Plan Objective: Lucy Burchnall/4.3

The report of the significant use of powers by the rangers is displayed in Appendix 1 and reflects a busy peak season. The average navigation/countryside splits since April (Appendix 2) continues to be higher on the navigation side as would be expected during the summer when patrolling is a priority. This percentage will start to change as we move into the winter working pattern in November.

Mr Barrett who was involved in the incident at Oulton Broad last September pleaded guilty at Ipswich Crown Court. The Judge sentenced Mr Barrett to 9 months imprisonment, suspended for 12 months. He is required to undergo 15 days' rehabilitation and undertake 120 hours unpaid work. He was ordered to pay £15,000.00 costs of which £968.63 will come back to the Authority to cover time spent on the case (Appendix 3).

## 4. Sunken and Abandoned Vessel Update

Contact Officer/Broads Plan Objective: Lucy Burchnall/4.3

Over the summer 8 vessels which were sunk or abandoned have been successfully dealt with. There are a further 3 cases which are on-going (Appendix 4).

## 5. Planning Enforcement Update

Contact Officer/Broads Plan Objective: Cally Smith/None

No matters currently under action which have a waterways element.

Background papers: None

Author: Sandra Beckett/Sarah Mullarney

Date of report: October 2017
Broads Plan Objectives: Multiple

Appendices: APPENDIX 1 - Rangers Exercise of Powers Analysis

APPENDIX 2 - Ranger Team Activity

APPENDIX 3 - Report of prosecutions dealt with in court during

August 2017 to September 2017

APPENDIX 4 - Sunken and Abandoned Vessels

## **APPENDIX 1**

	(Br	Rangers Exerci	se of Powers An			Date:	Aug-Sep 2017	
	Wroxham Launch	Irstead Launch	Ludham Launch	Ludham 2 Launch	Norwich Launch Hardley I	aunch E	B.St.Peter Launch	Breydon Launch
Launch Patrol Areas	Wroxham and Upper Bure	Ant	Hickling, P.Heigham, Upper Thurne & Womack	Lower Thurne, Lower Bure & South Walsham	Norwich and Reedham, Upper Yare Middle Yar	Chet &	Jpper/Middle Waveney	Breydon Water, Lower Waveney and Yare
Verbal Warnings								
Care & Caution	33 ( 98 )	28 ( 66 )	30 ( 84 )	67 ( 142 )	( 1 )		7 ( 20 )	7 ( 20 )
Speed	872 ( 2633 )	326 ( 871 )	171 ( 524 )	<b>246</b> ( 521 )	( 96 ) 31 (	130 )	95 ( 232 )	31 ( 125 )
Other	11 ( 45 )	30 ( 59 )	10 ( 22 )	30 ( 68 )	( 7 ) 4 (	8 )	<b>25</b> ( 30 )	1 ( 7 )
Blue Book Warnings								
Care & Caution	1 ( 10 )	( 3 )	2 ( 4 )	( 2 )			1 ( 1 )	3 ( 10 )
Speed	14 ( 90 )	9 ( 23 )	2 ( 8 )	4 ( 10 )	1 ( 4 ) 1 (	4 )	4 ( 8 )	( 4 )
Other	13 ( 19 )	1 ( 7 )	( 3 )	( 7 )	( 2 ) 3 (	12 )	1 ( 3 )	2 ( 4 )
Special Directions	( 63 )	( 57 )			8 (	17 )	88 ( 258 )	
Launch Staffed (by Ranger)	58 ( 175 )	36 ( 104 )	39 ( 127 )	37 ( 75 )	39 ( 98 ) 22 (	69 )	41 ( 126 )	61 ( 183 )
Best Value Patrol Targets Percentage Compliance	100% ( 100% )	100% ( 100% )	100% ( 100% )	100% ( 100% )	98% ( 95% ) 100% (	100% )	98% ( 99% )	89% ( 95% )
Volunteer Patrols	( 2 )	1 ( 2 )	3 ( 6 )	( 1 )	(	2 )	4 ( 9 )	
IRIS Reports	<b>25</b> ( 103 )	12 ( 36 )	9 ( 32 )	9 ( 25 )	11 ( 52 ) 10 (	51 )	7 ( 25 )	21 ( 61 )
Broads Control Total Calls	TOTAL	7,799 ( 23,313 )		Telephone	6,336 ( 18,814 )	VHF	1,463 ( 4,499 )	

# Total Time Allocated/Actual Ranger Team

#### Up To 4 October 2017

			Actual Days To
Broads Authority Corporate	Work Area	Annual Allocation	Date
	Training	137	75.19
	Broads Control	39	43.31
Corporate Time	Team meetings / work planning	461	206.55
	Partnership working	66	22.15
	Assisting other sections	94	23.78
	Annual Leave		244.26
	Off Work Sick		90.68
	Time in Lieu		22.57
Premises Maintenance	Billets and boatsheds	19	15.41
	Launch - General		3.92
Vessel & Equipment Maintenance	Trailers - General		0.47
vessei & Equipment Maintenance	Vehicle Maintenance		6.59
	Other equipment repair		13.31
_	Total	816	768.18

			Actual Days To
Navigation	Work Area	Annual Allocation	Date
	Patrolling	1356	1007.26
	Escorts	28	13.65
	Prosecution files	0	26.45
Navigation Maintenance	Bankside tree management	81	12.23
Navigation Maintenance	Obstruction removal	29	17.87
	Channel markers & buoys	35	1.15
	Signs & boards maintenance	78	12.91
	Adjacent Waters		49.58
Mooring Maintenance	Reactive mooring maintenance	129	8.34
	Total	1736	1149.44

			Actual Days To
Conservation, Rec, C'side	Work Area	Annual Allocation	Date
	Fen management	14	2.94
	Lake / Riverbank restoration	36	0.00
Conservation	Invasive Species Control	33	2.06
	Other conservation work	158	15.10
	Pollution Response		4.93
	Visitor Site maintenance	143	129.82
Recreation/Countryside Maintenan	Whitlingham Country Park	294	120.93
	Public footpath work	11	2.97
Public engagement	Education work	10	15.00
	Total	699	293.76

Team total

3251

2211.39

Actual Percentage	80%

tual Percentage	20%

# **APPENDIX 3**

Report of prosecutions dealt with in court during August 2017 to September 2017					
Defendant	Offence	Court	Result		
Mr. Barrett	Joint Prosecution with MCGA under Merchant Shipping Act 1995	Ipswich Crown Court	9 months imprisonment, suspended for 12 months 15 days' rehabilitation 120 hours unpaid work £15,000.00 costs		

# **APPENDIX 4**

# **Sunken and Abandoned Vessels**

Description	Location found	Action	Notice Affixed	Result
Sunken cruiser	River Yare Old River Thorpe.	Vessel sunk at owners moorings	No	Not affecting the navigation owner will raise in due course
Sunken Cruiser	Oulton Broad	Harbour Master liaising with owner	No	Area Ranger team monitoring.
Sunken Cruiser	Beccles	Ranger team investigated, not hazard or pollution threat. Owner aware	No	Vessel has been raised by owner, awaiting removal. Ranger team monitoring.