

**Tolls Review 2016 and Proposed Navigation Charges for 2017/18  
in the Navigation Area and Adjacent Waters**

Report by Chief Executive, Head of Finance and Collector of Tolls

**Summary:** This report consults the Committee on the proposals by the seven members of the Tolls Working Group for the restructuring of navigation charges. The full report is contained in Appendix 1. There are three main recommendations:

- A new set of Guiding Principles for Tolls
- A simple charging structure based on the area of each vessel
- A flexible charging structure where different categories of vessel can be levied different rates per square metre

In addition a range of subsidiary matters are considered.

This report then identifies the level of income required in 2017/18 to maintain the existing level of services and take account of the further predicted fall in the number of hire boats. This is then combined with the proposed new charging structure to present a draft list of charges for different categories and sizes of vessel in 2017/18.

The Committee is asked for its views on each proposal.

## **1 Introduction**

- 1.1 This report examines progress over the last six months following decisions on tolls for 2016/17 by the Broads Authority in November 2015, in line with recommendations of this Committee. It then introduces the report of the Tolls Working Group. Finally, it considers the level of income required to maintain the current level of services, taking into account the predicted fall in the number of hire boats, and combined with the Working Group's proposals to develop a schedule of navigation charges for 2017/18.
- 1.2 If the recommendations of the Working Group are accepted, they will probably represent the most significant change in the way navigation charges are levied since 1981, which saw a move to charging on the basis of area of the craft rather than tonnage. The two main effects will be:
- (a) The change in the calculation of the charge from fixed and variable components to a purely variable element will reduce the costs for small boats, whose numbers have been in decline, and increase the costs for the larger boats.

- (b) The removal of multipliers and discounts will provide a more flexible system, able to adapt to the changes in different fleets.

## 2 Progress over the last year

- 2.1 Last year the Authority faced a difficult decision after the very low toll increase in 2015/16 of 1.7%, the continuing reduction in hire boat numbers, and pressures on expenditure. Members of the Authority adopted the Navigation Committee's recommendation of a 4.5% increase in income combined with a reduction in the hire boat multiplier from 2.62 to 2.55. This was part of a package that involved £93,000 of additional expenditure (Table 1). It included £30,000 for the Hickling Enhancement Project, an extra £49,000 for operational works, and the cancellation of the removal of the Dickey Works.

**Table 1 Areas of Additional Expenditure**

<b>Additional Expenditure</b>	<b>Amount</b>
Extra Operational Works	+£49,000
Hickling dredging this year and next	+£30,000
Salary increase +1%, additional pension costs	+£28,000
Increased costs of maintaining Mutford Lock	+£6,000
Cancel work on removal of the Dickey Works	-£20,000
<b>Additional Expenditure</b>	<b>+£93,000</b>

- 2.2 The Hickling Enhancement Project is on target for delivery, with 3,500m<sup>3</sup> of priority dredging being carried out in the winter of 2015/16, as well as a trial area using geotextiles recreating eroded land at Hill Common. In October 2016 the Authority began the first phase of constructing bays using timber posts and geo-textiles to form a perimeter wall into which dredged material will be pumped. These areas, in Churchill's Bay and the Studio Bay, will be planted with reed and mace to recreate land lost to erosion and restore habitat. The next phase in 2017/18 is to develop agricultural land to receive pumped dredgings into lagoons, where it can be naturally dried, spread and used to replenish low lying agricultural land, as well as trialling geotextiles as a temporary barrier to wind and wave erosion.
- 2.3 In 2015/16 dredging to restore rivers and broads to their required profiles and specification saw sediment removal exceed the target of 50,000 cubic metres by 1,435 cubic metres. Total volumes removed reached 103% of the estimated target volume.
- 2.4 The Authority's Environment Officers mapped and developed priority areas for tree clearance along the River Ant, targeting bankside trees, encroaching

vegetation and areas of 'wind-shadow'. In 2015/16 the Authority cleared over 4km of trees and is continuing to target problem areas on the middle Bure and the Thurne so that a similar operation can take place over the winter of 2016.

- 2.5 Table 2 shows the number of weekly hired cruisers by year. The temporary recovery in numbers shown in the table was the result of the company 'Le Boat' bringing a total of 42 boats from Ireland, most of which arrived for the 2009/10 season but have since gone.

**Table 2 Number of Hired Motor Cruisers**

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016
No.	803	843	878	904	894	869	842	821	789

- 2.6 The established pattern of change in the private fleet also continues, as shown in Table 3, with a fall in the number of small motor boats and an increase in the number of larger ones.

**Table 3 Private Motor Boat Numbers by Size**

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

### 3 Proposed New Charging Structure

- 3.1 Over the last year a group of seven members of the Broads Authority, five of whom were also members of the Navigation Committee have, at the request of the Broads Authority, undertaken a comprehensive review of the structure of the charges levied in the navigation area and adjacent waters. A copy of their report is at Appendix 1.
- 3.2 The Group makes three main recommendations for the Navigation Committee and the Broads Authority to consider:
- (i) A new set of Guiding Principles for Tolls.
  - (ii) A revised structure for the tolls in which for each class of vessel the owner will pay a set amount per square metre. Wherries, rowing boats, canoes and kayaks will pay a flat rate charge.

- (iii) A flexible charging structure, such that the different fleets on the Broads can be levied different rates per square metre.

3.3 In addition, the Group makes seven subsidiary recommendations:

- a) The eight wherries should be charged a flat rate, to reduce their overall costs and reflect their iconic status.
- b) Electric boating should continue to be encouraged through lower rates, but boats that use diesel generators to charge electric engines should be charged at the appropriate higher motor boat rate.
- c) The current discount for early payment provided to the larger hire boat operators should be discontinued, but the provision for staged payments should be retained.
- d) The non-display of toll plaques trial should be extended for a further year.
- e) The charges for craft in adjacent waters should remain identical to those in the Navigation Area.
- f) The charges for passing through Mutford Lock should seek to recover the annual costs involved.
- g) The current charging policy regarding boats removed from the Broads system (Navigation Area and adjacent waters) should be retained.

#### **4 Draft Income and Expenditure for 2017/18**

4.1 In the coming year, with the proposed restructuring of the tolls and the continuing loss of income from the hire fleet, the officer view is that there is little or no margin for any additional activity.

4.2 In developing draft income and expenditure figures for 2017/18, the outturn for this year's budget has been reviewed. Table 4 shows that Navigation Income for the current year 2016/17 is below the forecast and is anticipated to be approximately £22,100 below the budgeted figure at the end of the financial year. While income from private boats has generally been above the estimate, income from the hire boat fleet is continuing to fall. The provision for a reduction of £20,000 in hire boat income has proved too optimistic, with a reduction of 32 registered weekly hire boats and two passenger boats giving rise to a loss in income from commercial craft of around £46,000.

4.3 Net expenditure is predicted to be down by £15,546 at the end of the year. This is a combination of additional income from the electric charging cards and small savings on a number of budgets, i.e. legal, safety management, IT, governance, vehicles and Yare House. The predicted outturn for 2016/17 is therefore a slightly increased deficit of £8,947. The Navigation Reserve is predicted to remain just above the minimum level of 10.0%

- 4.4 Turning to income for 2017/18, the advice from the Broads Hire Boat Federation is that at least a further 20 hire boats will be taken out of the fleet next year. Taking an average income from a weekly hire craft this year of just over £1,000, this equates to a further loss of over £20,000 next year. From the information supplied, this change appears to be at the bigger yards where the investment programmes involve building new boats and removing a larger number of older vessels from the fleets.

**Table 4 Budget for 2016/17 and Predicted Outturn compared to Draft Income and Expenditure for 2017/18**

	<b>Latest Available Budget 2016/17</b>	<b>Predicted Outturn 2016/17</b>	<b>Draft Income &amp; Expenditure 2017/18</b>
Navigation Income	£3,119,839	£3,097,739	£3,179,500
Expenditure	£3,122,233	£3,106,687	£3,178,333
<b>(Surplus)/ Deficit</b>	<b>£2,394</b>	<b>£8,947</b>	<b>(£1,167)</b>
Transfer of accrued interest to ear-marked reserves	£5,000	£3,750	£3,750
Opening Reserves	£333,090	£333,090	£320,392
Closing Reserves	£325,695	£320,392	£317,809
<b>Reserves as % of Expenditure</b>	<b>10.4%</b>	<b>10.3%</b>	<b>10.0%</b>

- 4.5 At this stage in the financial year there are a significant number of unknowns around the Authority's expenditure for next year. One of these is the outcome of the triennial review of the pension fund, which is unlikely to be known until the end of November. A detailed draft budget for 2017/18 will be brought to the next meeting in December when more is known.
- 4.6 In terms of expenditure for next year, the Hickling Enhancement Project is one of the Authority's strategic priorities and involves a commitment of £60,000 per annum, shared equally between National Park and Navigation expenditure. This commitment continues until 2019/20.
- 4.7 The current plan for 2017/18 is for mud-pumping in the marked channel with discharge to an arable field. This involves signing an agreement with the landowner before Christmas 2016 to give him confidence that the Authority is going to progress the project, and adequate time to adjust his cropping regime. The Authority's Environment Officers have started the evidence gathering process for the submission of an application for an Environmental Permit in February 2017 for the storage and land-spreading of sediment. Site preparation and lagoon construction on the field is planned for August 2017. An external contract is to be let for the mud-pumping work programmed to start in November 2017. The tendering process for the mud-pump contract is planned to start in April 2017.

- 4.8 The Authority submitted a bid for European funding to support the Hickling Project, and on 5 October was told that the Expression of Interest had been accepted and approval for the submission of a full application given. However the RSPB, as lead partner, is now questioning whether, in the light of the decision for the UK to leave the European Union, it is appropriate for the application to be led by a partner based in this country. The full implications of this and a potentially successful bid will be re-evaluated over the coming weeks and a report brought back to this Committee.
- 4.9 Other pressures acting on the expenditure include cost of living increases and increments for staff salaries, increased pension contributions, the apprenticeship levy, and upward pressure on the costs of equipment and materials.
- 4.10 The apprenticeship levy is to be introduced from 6 April 2017 and requires all employers, both public and private sector whether with apprentices in their workforce or not, operating in the UK with a pay bill over £3 million to contribute 0.5% of their annual pay bill. For the Broads Authority this is a sum of £16,500, £9,900 funded from National Park Grant and £6,600 from Navigation Income.
- 4.11 This Committee, key stakeholder organisations such as the Broads Hire Boat Federation (BHBF) and Norfolk and Suffolk Boating Association (NSBA), and boat owners in general, as evidenced through the 2014 stakeholder survey, all want more work carried out and more services delivered. The removal of the Dickey Works was delayed last year at a cost of £20,000. The provision of new moorings, waste collection costs and electronic signage have all been considered but ruled out this year because of the other pressures on the budget. However, £10,000 of additional expenditure for signage has been included for the 24 hour moorings sign upgrade. Work on identifying potential new mooring sites is on-going and proposals with the financial implications will be brought forward in due course.
- 4.12 The difference between the level of Expenditure in the Latest Available Budget for the current year and the Draft Budget for next year as shown in Table 4 is £56,100 and the detail is shown in Table 5 below.

**Table 5 Proposed Areas of Change in Expenditure for 2017/18**

<b>Expenditure Change</b>	<b>Amount</b>
Salary increase +1%, draft pension costs	+56,201
Apprenticeship Levy (0.5% salary costs)	+6,600
Vehicles savings	-6,300
Mutford Lock routine maintenance & operational costs	+7,000
Electric Charging Points additional Income	-1,500

Signage	+10,000
Standby	+1,675
Oil spill	+1,500
Asset Management Building survey 1 off in 2016/17	-4,500
Yare House Lease adjustment	-3,728
Whitlingham Charitable Trust recharge	-6,982
Photocopier lease savings	-2,706
Other minor savings	-1,160
<b>Additional Expenditure</b>	<b>+£56,100</b>

- 4.13 To accommodate the Hickling project and the items listed above, total income and expenditure will both need to be in the order of £3.18 million (see Table 4) to maintain services at the existing level with reserves at the recommended minimum level of 10.0% of expenditure.
- 4.14 The decline in the number of hire boats and passenger boats, although small in the context of the total number of boats using the Broads, is significant because of the amounts they pay. A key question is how the continuing reduction in income from the hire fleet, predicted to be at least £21,000 for the coming year, should be accounted for against the 14 categories of boats proposed in the new tolls structure. To date the loss of income in the hire fleet has been spread across all 12,000 boats. Given the magnitude of the changes proposed to the charging structure, this practice has continued in developing the draft schedule of navigation charges for 2017/18.
- 4.15 These charges have also been calculated on the basis that the income sought in 2017/18 for each of the 14 categories of vessel is broadly in line with that received for 2016/17 plus the amount necessary to meet the increase of £56,100 of cost pressures. The proposed new structure of charges has helped not only in simplifying the arrangements but making them more transparent. Table 6 below summarises the proposed charge for each category, the number of boats currently in each category and the income produced.
- 4.16 Appendix 2 contains the same information broken down by size of vessel in each category. It shows the toll paid for that size of vessel this year, what the toll would have been under the proposed new structure and the cash difference. The following column has the proposed charge for next year and difference with what was paid this year. This will allow individual toll payers to look at the implications of this report for boats on the system.

4.17 Table 6 shows that the category contributing the largest proportion of the tolls is private motor boats (diesel, petrol and electric), which account for approximately 54% of the total income. The weekly hired motor craft account for 27% and private sailing craft, including motorised sailing craft, 7%.

**Table 6 Proposed Charges for the Navigation Area and Adjacent Waters in 2017/18**

**Commercial Fleet**

<b>Category</b>	<b>Proposed Charge</b>	<b>Number of Boats (30/09/16)</b>	<b>Total Income £000's</b>
1. Weekly hired motor craft	£28.95 per m <sup>2</sup>	789	£860.3
2. Day hired	£44.30 per m <sup>2</sup>	251	£121.2
3. Day hired Electric	£30.90 per m <sup>2</sup>	43	£15.0
4. MCA Passenger Boats and small passenger boats	£38.10 per m <sup>2</sup>	16	£24.0
5. Motorised Sailing Craft	£23.50 per m <sup>2</sup>	44	£24.2
6. Sailing Boats	£17.50 per m <sup>2</sup>	102	£13.8
7. Houseboats	£14.95 per m <sup>2</sup>	16	£10.7
8. Rowing, canoes etc.	£65.70	192	£12.6
<b>Sub Total</b>			£1,081.8
Other tolls (Trade plates, Hire Paddling scheme etc.)			£13.3
Predicted reduction in hire fleet			-£21.7
<b>Total Income</b>			<b>£1,073.4</b>

**Private Fleet**

<b>Category</b>	<b>Proposed Charge</b>	<b>Number of Boats (Forecast March 16)</b>	<b>Total Income £000's</b>
9. Motor Boats - petrol & diesel	£12.85 per m <sup>2</sup>	6,384	£1,693.2
10. Motor Boats Electric	£10.00 per m <sup>2</sup>	244	£17.3
11. Motorised Sailing Craft	£9.50 per m <sup>2</sup>	1128	£161.0
12. Sailing Boats	£8.00 per m <sup>2</sup>	1061	£62.5
13. Houseboats	£5.15 per m <sup>2</sup>	58	£9.5
14. Rowing, canoes etc.	£32.85	1576	£51.8
<b>Sub Total</b>			£1,995.3
Other Toll (Work & Safety Boats, Youth Schemes, BCU, Wherries etc.)			£44.7
Short Visit Tolls			£39.8
<b>Total Income</b>			<b>£2,079.8</b>

**Total Predicted Income**

Other Income (Interest, Mutford Lock, Ski Permits, Boat licencing etc.)	£26.3
<b>Total Navigation Income</b>	<b>£3,179.5</b>



## 5 Evaluation and Risk Analysis

- 5.1 The impact of the proposed structure has been tested by replicating the 2016/17 charges using the new structure, and this is summarised in the Working Group's report. The calculations have been repeated using the proposed charges for 2017/18 and boat numbers for 2016/17. The results are shown in Table 7 below.

**Table 7 Implications of the new structure for individual vessels.**

	<b>Category</b>	<b>Pay Less</b>	<b>Pay More</b>
1.	Weekly Hire	189	600
2.	Day Hire	99	152
3.	Day Hire Electric	18	25
4.	MCA Passenger / Small Passenger	7	9
5.	Motorised Sailing Hire	10	34
6.	Sailing Boats Hire	81	21
7.	Houseboats Hire	2	14
8.	Rowing Hire	0	192
<hr/>			
9.	Private Motor Boats	3009	3375
10.	Private Motor Boats Electric	214	30
11.	Private Motorised Sailing	807	321
12.	Private Sailing Boats	764	297
13.	Houseboats	57	1
14.	Rowing, Canoes etc.	0	1576

- 5.2 If implemented as set out above the effect of using a variable rather than a fixed and variable calculation would mean that the larger boats using the Broads would see an increase in their charges. Overall, with the provision of the rates in Table 6 applied, Table 7 shows that 44% of all the boats listed would see a reduction in their toll even with the overall increase in income. So for example the owners of 764 (72%) sailing boats would see a reduction in their charge even though there would be an increase in the total contribution from that category.
- 5.3 47% of the category with the largest number of boats, the private motor boats, would also experience a reduction in the toll. On the other hand 1,576 rowing, canoes and kayaks not affected by the structural changes would all see an increase of £0.97 as their contribution to the additional expenditure.
- 5.4 For commercial boats, 24% of the hire boats would experience a reduction in the charge for 2017/18. The big new boats, which are the most profitable, would pay more. For day boats, 40% would see a reduction.
- 5.5 When considering the impact of the changes, it is worth considering that the stakeholder survey research in 2014 (Insight Track) shows that the charges are a small part (9% on average, larger for small boats and smaller for bigger boats) of the cost of owning and maintaining a boat. Mooring/marina fees, maintenance and repair costs and fuel are all, on average, a bigger part of the

cost of owning a private boat. In the light of this, the proposed changes are not expected to have a significant impact on the number of large private boats in the area. The research showed that most private boat owners (70%) think they will own the same number of boats in the next five years (12% more; 9% fewer); in particular those in the age category 18-34 thought they were most likely to own more boats.

- 5.6 Any change to the tolls contains some element of risk. The Authority has minimised the impact of the changes by consulting the main boating organisations on several occasions, so that it can gauge the likely reaction to the reform of the structure. It has also modelled the impact, so that it has a good understanding of the boats that will be affected and the degree of increase/decrease in the charge for individual boats.
- 5.7 The proposals in this report represent a significant change in the charging structure for boats on the Broads. A judgement was made, using Insight Track's research findings, as to whether the proposals should be subject to an equality impact assessment. However, the research evidence, for example that for the average private boat owner the toll represents only 9% of the total costs of owning a boat, suggests that there will not be a disproportionate impact to any specific characteristic groups as a result of the toll review proposals.

Background papers:	None
Author:	John Packman, Emma Krelle, Bill Housden
Date of report:	12 October 2016
Broads Plan Objectives:	None
Appendices:	APPENDIX 1 – Tolls Working Group Report APPENDIX 2 – Draft charges for 2017/18

**Proposals for a fairer, simpler structure  
for tolls in the Broads  
navigation area and adjacent waters**

Report of the Tolls Working Group 2016

Jacquie Burgess (Joint Chair)  
Michael Whitaker (Joint Chair)  
Kelvin Allen  
Louis Baugh  
Bill Dickson  
Phil Durrant  
Nicky Talbot

October 2016

Final

## Executive Summary

**Process:** The seven members of the Tolls Working Group have comprehensively reviewed the existing tolls structure. After consultation with key stakeholders they make the following recommendations for consultation with the Navigation Committee and consideration by the Broads Authority.

**Context:** The basis for the appropriate navigation charge is that the payment of a toll buys the customer a time-limited right of access to the waterways in the Broads.

### **Recommendation 1: New Guiding Principles for Tolls**

The Broads Authority adopts a new set of Guiding Principles for Tolls based on:

- (i) The Authority's 'statutory responsibility';
- (ii) 'Flexibility';
- (iii) 'Fairness, based on economic costs and benefits';
- (iv) 'Simplicity'; and
- (v) 'Efficiency'

### **Recommendation 2: A simple charging structure**

It is proposed that for each class of vessel (see Recommendation 3), the owner will pay a set amount per square metre. This moves away from using the fixed and variable element in the calculation of charges introduced in 1981 to a single, variable element related to the size of the vessel. Wherries, rowing boats, canoes and kayaks will pay a flat rate charge.

### **Recommendation 3: A flexible charging structure**

It is proposed that different types of vessel in each of the two fleets, commercial and private, should be given independent costs per square metre. For example it is suggested that there should be a rate per square metre for weekly hired motor boats that is different from that for private motor boats. This would replace the current system of multipliers and discounts, and provide the Authority with the flexibility to respond to changes in the composition and number of boats in the different fleets.

### **Subsidiary Recommendations**

- (i) Wherries should be charged a flat rate, to reduce their overall costs, promote their important cultural heritage and reflect their iconic status. (There are eight wherries on the Broads system as at October 2016.)
- (ii) Electric boating should continue to be encouraged through lower rates for private motor boats. However, any boats using diesel generators to power electric engines should be charged at the normal commercial/private motor boat rate.
- (iii) The current discount for early payment offered to the larger hire boat operators should be discontinued but the provision for staged payments should be retained.
- (iv) The non-display of toll plaques trial should be extended for a further year.

- (v) The charges for craft in adjacent waters should remain identical to those in the Broads Navigation Area to account for the interconnected relationship between the two.
- (vi) The charges for passing through Mutford Lock should recover the annual costs involved.
- (vii) The current charging policies for short visit tolls and boats removed from the Broads system should be retained.

## 1 Introduction

1.1 This is the report of the 2016 Tolls Working Group which was established in September 2015 by the Broads Authority to “review the current tolls structure”. The Group comprised seven Broads Authority Members, five of whom were also Members of the Navigation Committee, and brought together a wide range of interests and experience.

MEMBER	ROLE	INTERESTS
Prof J A Burgess	Joint Chairman	Chair, Broads Authority toll payer; member NBYC
Mr M Whitaker	Joint Chairman	Chair, Navigation Committee Broads Authority member, Chair BHBF, toll payer
Mr K Allen	BA member	Broads Authority member Navigation Committee Broads Angling Strategy Group
Mr L Baugh	BA member	Broads Authority member, Finance Scrutiny & Audit Committee
Mr W A Dickson	Co-opted member, BA Member from 1.07.16	Navigation Committee, toll payer
Mr P Durrant	BA member (until 31.03.16)	Broads Authority member, Navigation Committee. <i>(Retained as a member of the Group until completion of work)</i>
Mrs N Talbot	Co-opted member; BA Member from 18.03.16	Navigation Committee, NSBA, toll payer, member NBYC

1.2 The driver for the review came from the stakeholder research carried out by Insight Track<sup>1</sup> in 2014, which identified significant concerns about the hire boat multiplier amongst the commercial operators, as well as statistically representative findings on owners' views on the charges. This was followed up

<sup>1</sup> Insight Track Ltd., a research company based in Norwich, was commissioned in 2014 to carry out surveys so as to provide a fact-base about private boat-owners, hire boat operators, residents and visitors in the Broads, in order to inform management decision-making (notably in respect to tolls planning and management),

by a Tolls Workshop in September 2015 which identified two main issues for investigation, namely whether:

- (i) a more flexible structure should be adopted for hire boats rather than the current system of multipliers and discounts linked to the private motor boat rate; and
- (ii) the present fixed plus variable calculation should be replaced by a variable calculation, based on the area of the vessel.

1.3 The Group (hereafter TR-16) met ten times (see Annexe 1 for details of the work programme) and has:

- (i) reviewed the overarching strategic principles from 2012 and developed a new set of Guiding Principles;
- (ii) examined closely the basis for the calculation of the navigation charges;
- (iii) considered whether a more flexible system should replace the current arrangement of multipliers and discounts for different categories of vessels;
- (iv) examined the charges in adjacent waters;
- (v) reviewed the current discounts for early payments and discounts;
- (vi) reviewed the trial instituted in February 2016 not to issue toll plaques;
- (vi) considered the charges for the electric boats, boats with electric engines powered by diesel generators and the eight wherries; and,
- (vii) examined short visit tolls, the charges for transiting Mutford Lock and policies on refunds for boats leaving the Broads.

1.4 This report will be presented to the Navigation Committee for its views on 27 October 2016 before the Broads Authority makes a decision on the matters at its meeting on 18 November.

1.5 The Broads Authority has regularly reviewed the structure for tolls as the number and type of boats has changed and the needs for expenditure in different areas have put pressures on the budget. Four major reviews have been carried out over the last 10 years and full documentation is available on the Authority's website. The reviews are referenced in this report in the following way:

1. **Tolls Working Group 2005 (TR-05)**

Key stakeholder organisations took part in seven independently facilitated workshops to debate:

- (i) the structure and level of charges for a revised tolls system;
- (ii) the use of the tolls as a policy instrument; and
- (iii) the overall funding requirements for the maintenance of the navigation and provision of facilities for those using the waterways.

(See Broads Authority papers for 22 April 2005, agenda item 5).

2. **Tolls Review 2008 (TR-08)**

The 2008 review was a short process with three meetings held with a range of stakeholders. Issues were:

- (i) how to toll craft of different sizes;
- (ii) the hire boat multiplier;
- (iii) the need for 10% navigation reserves; and
- (iv) uncertainty about DEFRA funding.

(See report to Navigation Committee, 23 October 2008).

3. **The Navigation Finance and Tolls Review Group 2009 (TR-09)**

This was a Member Group whose terms of reference were to:

- (i) review all aspects of navigation income and expenditure, setting a three year financial strategy;
- (ii) determine the relative changes for different size vessels; and
- (iii) discuss the future of the hire boat multiplier.

(See BA 20 November 2009, agenda item 14).

4. **Tolls Working Group 2012 (TR-12)**

This involved key stakeholder groups, was independently facilitated and met four times. After a good start when the current Principles and Criteria were agreed, there were significant differences of view between participants about the relative charges for vessels and the multiplier which could not be resolved.

(See BA, 23 November 2012, Agenda item 13).

1.6 From this history it can be seen that the two main issues identified in the 2015 Workshop, the hire boat multiplier and the relative charges for large and small craft, have been on the agendas for tolls reviews for the last decade. The TR-16 Member Group was committed to trying to resolve these issues, so that a new structure that could form the basis for the calculation of tolls for the foreseeable future. The Group started with a review of the underpinning principles before tackling the charging structure.

## 2 **Guiding Principles for Tolls**

2.1 TR-16 examined what lay behind the adoption of the 8 Guiding Principles and Criteria which underpin the current tolls structure. Ten 'attributes' of a good structure were first established in Tolls Review 2005 (TR-05) [BA, 22.04.2005, item 9, sect. 3.3 of Report appendix]. Several referred to the delivery of the Tolls service whilst three others linked the level of charge to the environmental impact of vessels; to the size of vessel with larger boats paying more than smaller; and to the volume of usage of the vessel.

2.2 TR-05 recast the 'multiplier', which had been developed originally in negotiation with the hire boat industry as a mechanism to generate additional income for extra facilities such as moorings, into a 'charge linked to usage'. The rationale for the multiplier was that hire boats used the Broads system more intensively

than private boats and should, therefore, pay proportionately more towards its management. At the same time, the 2005 review noted the sensitivity of the multiplier to fluctuations in economic circumstances.

- 2.3 Following through to the Tolls Review in 2012 (TR-12), a draft set of Guiding Principles and Criteria were put forward to the Broads Authority for discussion as part of setting the 2013-14 Tolls [BA 23.11.12, item 13, Appendix 1]. The draft list was less comprehensive than that in TR-05 in that specific assessment tools were not included. There was also a change in the prioritisation of principles.
- 2.4 All eight draft guiding principles put forward by TR-12 represented discrete justifications for levying a toll on different classes of vessel. Principle 1 addressed the **size of vessel** and stated that larger boats should pay a higher toll than smaller boats because their impacts on the system were greater. Principle 2 was based on **usage of the navigation area**: owners of hire boats should pay more on the basis that their boats used the system and facilities more than private boats. Principles 3, 4 and 5 picked up the Broads Plan 2004 sustainable development principles, endorsing TR-05's '**environmental impact**' and '**social impact**' attributes while adding a new '**economic impact**' principle.
- 2.5 TR-12 proposed two additional principles: P6 **Fairness** required that the Tolls structure should be 'justifiably and understandably fair when applied and encompass the full spectrum of users and uses'. P7 **Value for Money** required that charges should compare favourably with other waterways while also generating the required revenue.
- 2.6 TR-16 reviewed the existing lists of principles and attributes, concentrating on TR-12 as these underpinned the current tolls structure. The Group felt these should be simplified to provide a clearer strategic framework and a more robust mechanism for appraising new proposals for the tolls structure. Discussion focused on the fundamental principles that justified levying navigation charges. The aim of these principles was to provide a fair and simple framework and to recognize the value of the entire fleet to the Broads navigation.
- 2.7 There was agreement that tolls income should generate sufficient income to maintain the navigation system at a level that reflected and met the strategic purposes of the Broads Authority in terms of the requirements of the Broads Act. Equally, the Group agreed that navigation charges should be used to support policy developments, such as promoting greater sustainable use of the waterways although it was considered that such a principle should be used to incentivize good behaviour rather than to penalize either hire boat operators or private owners. The Group noted that relatively little robust evidence existed to date to demonstrate that offering incentives through toll charges materially affected the behaviour of toll payers.
- 2.8 They also noted that the navigation charges were required to maintain the navigation system for the area and, unlike the other major waterways in the UK, the Broads navigation was entirely funded by its users all of whom pay for its



maintenance and management. TR-16 agreed there should be a higher charge for commercial boats but debated whether the existing rationale (P2) that hire boats used the system and the facilities of the system more often than private boats was the right one. Members argued that it was more appropriate to base it on the direct economic benefit commercial operators obtain from using the system rather than level of use.

- 2.9 Five new Guiding Principles were developed under the headings of: Statutory Responsibility, Flexibility, Fairness, based on Economic Costs and Benefits, Simplicity and Efficiency. These principles were tested at two workshops with members and in written consultation with the Broads Hire Boat Federation and the Norfolk and Suffolk Boating Association. Most of the discussions were focused on Principle 3 Fairness, based on Economic Costs and Benefits. The key point that emerged was the need to be explicit about the basis for the transaction between the Broads Authority and its customers, i.e. the payment of a toll buys the customer a time-limited right of access to the Broads waterways, the Navigation Area and adjacent waters.
- 2.10 As with vehicle road tax, how often an individual boat owner chooses to exercise their right to use the facilities is entirely a personal matter. The Group therefore replaced the 'usage' principle used previously to justify the multiplier between the private and the commercial fleets. The new Principle 3 states that the direct economic benefit commercial operators derive from the Broads waterways should be used to justify higher tolls charges for the commercial fleet.

### ***Recommendation 1***

#### ***Guiding Principles to underpin the Tolls structure***

1. Navigation charges should generate sufficient income to maintain the navigation area for the purposes of navigation to such standard as appears to the Authority to be reasonably required and to take such steps to improve and develop the navigation area as the Authority thinks fit (Section 10 of the Broads Act 1988). [**STATUTORY RESPONSIBILITY**]
2. Navigation charges should be used as a policy instrument, ensuring that the tolls structure is sufficiently flexible to protect the economic and social interests of those who live or work in the Broads. [**FLEXIBILITY**]
3. In recognition of the direct economic benefit derived by the commercial fleet<sup>2</sup> from the Broads navigation, operators should pay more than private boat owners for an equivalent sized boat. [**FAIRNESS, BASED ON ECONOMIC COSTS AND BENEFITS**]
4. The rationale and structure of navigation charges should be transparent and easily understood by all toll payers. [**SIMPLICITY**]

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<sup>2</sup> Commercial includes all those boats whose use generates an income for their owners, not just hire boats but also for example the ice cream boat.

5. The cost of collecting navigation charges should be as low as reasonably possible. [**EFFICIENCY**]

### **3 Basis for the calculation of the charges: a simple charging structure**

- 3.1 The structure of the Tolls has evolved over the last 30 years or so, with incremental changes being made at stages over this period. In 1981 the Port and Haven Commissioners made a fundamental change, moving from charges based on the tonnage of the vessel to charges based on the size of the boat in complete square metres using the overall length multiplied by the beam. This is the basis for the present charging structure.
- 3.2 The Commissioners were anxious to minimise the impact of this change and calculated the new charges based on **Fixed and Variable components**, the latter being a multiple of the size of the vessel in square metres, so that the differences with the tonnage charges were small. In 1981 the charge for a private motor vessel was calculated using a fixed amount of £8.80 plus £1.10 per complete square metre. Sailing vessels paid 50% of this rate - £4.40 plus 55 pence per complete square metre.
- 3.3 The current structure is built on a set of relationships with private motor vessels as the base equalling 100%. A number of **discounts** are then applied, for example the rate for auxiliary yachts (i.e. sailing craft with an engine) is 75% of the motor vessel toll; and, for sailing and unpowered houseboats it is 50%.
- 3.4 The Tolls Workshop in September 2015 involving Broads Authority and Navigation Committee Members and representatives of British Marine, the Norfolk Hire Boat Federation and the Norfolk and Suffolk Boating Association, examined this element of the structure. It compared the current fixed and variable calculation with one based on a purely variable relationship. Under the fixed plus variable calculation smaller boats paid relatively more for their size than larger vessels. In the current year a small (5 m<sup>2</sup> and under) private motor craft pays £94.28 and large boats then pay an extra £9.70 for each additional square metre added.
- 3.5 It was noted that 90% of the tolls income came from motor boats (private as well as hire) as opposed to sailing craft. There were 6,462 private motor boats registered in 2014. In addition, in terms of private boats overall, the Broads had a 'small-boat' fleet with over half of boats under 18 m<sup>2</sup>. The Group reviewed changes in the composition of the private boat fleet with respect to size, finding that over the last seven years the number of small private motor boats had fallen by 20% while the number of larger boats had increased (see Table 1).

**Table 1 Private motor boat numbers by size**

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

- 3.6 The Group reviewed the Insight Track research findings, in particular the evidence on the relative importance of the tolls in the total annual cost of keeping a boat on the Broads. This evidence is important because it allowed an evaluation of the possible impacts of replacing the fixed and variable rate with a variable-only structure and the removal of discounts.
- 3.7 Taking the **Private Boat Owners (PBOs)** first, TR-16 took note of the statistically significant samples that Insight Track recruited to achieve its sample of 747 private boat owners (PBOs), drawn from the Authority's database of 10,797 PBOs.
- a. The Authority's database shows that 77% of private boat owners (PBOs) own one boat and 23% own multiple boats. In the Insight Track sample, 68% of the sample of PBOs owned one boat, 18% owned two, 8% owned three, and 5% owned four or more vessels.
  - b. The Authority's data base shows that 83% of PBOs own a motor craft; 9% own a motorized sailing craft; 4% own a non-powered sailing craft; and 3% owned a rowing boat/canoe /kayak. To ensure a statistically representative sample to allow analysis, Insight Track interviewed more owners of auxiliary yachts (29% of total sample); rowing boats, etc. (26%); and non-powered sailing craft (18%).
  - c. The length of time that respondents had owned a boat on the Broads ranged from less than a year (6%), 1-5 years (26%); 5-10 years (18%); 10-15 years (15%), to more than 15 years (35%).
  - d. In the sample, 11% of respondents were aged between 18-34; 39% were aged between 35-54; and just under half (49%) aged over 55. The vast majority of PBOs in the sample were men (83%).
  - e. In terms of 'social grade', the majority of PBOs (56%) were within social category ABC1 (i.e. professional, managerial and clerical) and 37% within social categories C2DE category (skilled manual workers, manual workers, semi-skilled, unskilled, casual workers and non-workers, including pensioners).

- f. Gross household incomes varied accordingly, with 4% of PBOs recording incomes less than £15,500 a year, and 14% between £15,500-£24,999. The largest group, at 28%, fall within a gross household income category of £25,000-£49,999. At the upper end of the range, 11% of PBOs report a gross household income between £50,000-£74,999 and 11% were above this figure.
- g. PBOs were asked to provide details of the costs of owning a boat. Table 2 shows the costs reported by PBOs.

**Table 2 Costs reported by Private Boat Owners (PBOs) of owning a boat.**

Category of expenditure	Percentage
Mooring/marina fees	32%
Maintenance /repairs	29%
Fuel	11%
Broads Authority tolls	9%
Insurance	9%
Miscellaneous	7%
BSS compliance	2%

- 3.8 The three most significant costs for the private boat owner were mooring/marina fees (32%), maintenance and repairs (29%) and fuel (11%). The Broads Authority's tolls accounted for an average 9% of the annual cost. There were some minor fluctuations around this average: for boats less than 10 feet long the tolls accounted on average for 14% of total costs, for boats 10 – 19 feet long the figure was 12%, whilst for motorised sailing vessels the toll contributed 8% of total annual boat ownership costs.
- 3.9 The research showed there were no significant differences in terms of the proportion of total annual boat ownership costs attributed to tolls by demographic groups among the PBOs such as respondent age, social grade, etc.). The researchers reported that there was no clear or strong perception among PBOs as to whether the toll was better value for money for different sizes of boats. This suggested to TR-16 that the current structure is not sufficiently transparent.
- 3.10 Just over half of the PBOs agreed that BA toll represented good value for money but a quarter disagreed. Individual owners of larger, particularly non-powered sailing boats, were less likely to agree the toll was good value for money.
- 3.11 Twenty five **Hire Boat Operators (HBOs)**, again a statistically significant sample, were interviewed over the phone by Insight Track researchers and asked the same questions as the PBOs to allow for comparisons to be made. Table 3 shows the proportion of total annual fleet running costs averaged across the sample.

**Table 3 Costs reported by Hire Boat Operators (HBOs) of operating a boat**

<b>Category of expenditure</b>	<b>Percentage</b>
<b>Staff</b>	35%
<b>Misc. costs</b>	12%
<b>Maintenance /repairs</b>	11%
<b>Premises</b>	11%
<b>Broads Authority tolls</b>	11%
<b>Insurance</b>	7%
<b>Fuel</b>	5%
<b>Business rates</b>	5%
<b>New boat investment</b>	3%

- 3.12 The majority of HBOs (56%) did not agree that the Broads Authority tolls were good value for money, while a further 36% were neutral on the question. One of the major issues for the HBOs was the multiplier, with 72% of interviewees not supporting it, and a further 20% expressing a neutral opinion. A number of HBO interviewees were also critical of other aspects of the Broads Authority performance in relation to the management of the navigation which TR-16 took into account in its deliberations. Particular weight was given to the BHBF advice that a substantial number of hire boats would be lost in 2016-17 as a consequence of yard closure and rationalization of the fleet.
- 3.13 The Group noted that a decision to implement the fixed and variable rate had been taken back in 1981 when the Port and Haven Commissioners changed from charges based on vessel tonnage to size of boat in complete square metres (see paras. 3.1-3.2 above). This was done for a political reason, i.e. to ensure the differences between the tonnage charges were small, rather than for any underlying structural reason. The fixed and variable calculation does not relate to different lines in the Authority's expenditure nor do they relate to fixed or variable costs. After extensive discussion, reviewing evidence from financial modelling of alternative approaches, and comparing Broads Authority charges with other UK inland waterways, the Member Group reached the conclusion that the current structure of fixed and variable rates should be replaced by a single variable rate.
- 3.14 In particular the Group was concerned that the current fixed and variable rate impacted more on small boats than on larger boats. The Group took note of the declining number of small boats being tolled over the last 7 years and the evidence that the charges for small boats on the Broads are higher than those on other inland waterways. At the same time, the data show a growing trend

of private individuals and hire boat operators purchasing and/or building larger vessels.

- 3.15 TR-16 considered that the adoption of a calculation for the charges based purely on the variable rate, as used by the Environment Agency on the River Thames, would be fairer. Smaller motor boats in particular would pay less, with the smallest private motor boats likely to pay between £60-£70 rather than the current £99.32, bringing the Broads more into line with comparable waterways. It was also thought that it would be easier to explain and justify the charges to toll payers; the calculation of the toll for any given boat would be transparent; and it would enable the Authority to respond to changes in the fleet in a more strategic way. Finally, TR-16 accepted that the administrative costs would be similar although there could be a potential marginal saving in time.

## **Recommendation 2**

### ***Basis for the Calculation of the Charges: A Simple Charging Structure***

The Group is recommending that, in future, charges for most vessel types should be based entirely on a calculation based on the square metre size of the craft without a fixed element. The charge would be different for each class of vessel. Within each class, the owner will pay a set amount for each square metre. A small number of vessel classes (wherries; rowing boats, canoes and kayaks) will pay a flat rate charge, regardless of the block size of the vessel.

## **4 Basis for the calculation of the charges: a flexible charging structure**

- 4.1 **The Multiplier.** One of the main drivers for the review of the tolls structure was the concern registered by the hire boat industry about the hire boat multiplier. The multiplier was first introduced in 1974, at the suggestion of the Broads Hire Boat Federation, to provide additional income to the Port and Haven Commissioners for the provision of extra facilities such as free moorings. Since that time the multiplier rate has varied and on other waterways where it exists, is now substantially below that on the Broads. In the year 2015-16 the annual toll for a hire vessel in the Broads was the equivalent private vessel toll multiplied by:

x 2.95 for day hire boats and passenger craft

x 2.55 for all other motorized craft and sailing craft or 11m<sup>2</sup> and above

x 2 for sailing dinghies and rowing boats of 10 m<sup>2</sup> and under.

The multiplier for the weekly hired craft was reduced to 2.62 in 2014-15.

- 4.2 The Insight Track research showed that the hire boat multiplier was well supported by around 70% of private boat owners (PBOs), on the basis of justifications such as 'hire boats are used more' (36%); 'they cause more damage' (19%); and hire boat operators (HBOs) 'make profit from use' (13%). Very small numbers of PBOs who did not support the multiplier cited reasons such as 'damages tourism/local economy' (2%), 'it's not fair to hire boat operators' (1%) and 'it damages profitability' (1%).

- 4.3 The HBOs expressed very different views about the multiplier to the Insight Track researchers, with 9 of the 25 interviewees saying they did not support it at all, and a further 9 saying they did not support it very much; 5 interviewees were 'neutral' and only 2 HBOs supported it 'quite a lot'. Combined with critical comments made by HBOs in other sections of the stakeholder survey research, these findings gave cause for concern.
- 4.4 A meeting between the Authority and the hire boat industry was held on 25<sup>th</sup> June 2015 to listen to the operators' concerns. Three options were debated at the subsequent workshop in September 2015: no change; changing the percentages (for example, that the multiplier should be reduced by 0.1% annually); and changing to a more flexible structure. The majority of Broads Authority Members supported the option of scrapping the multiplier altogether.
- 4.5 **Categorisation of vessels.** TR-16 reviewed the size of the boats and numbers within the commercial and private fleets and the interrelationship through the multiplier. The Group noted that the two fleets were very different: the majority of private boats were small. This is particularly true of sailing craft where 479 of the 1061 are 5m<sup>2</sup> or less in area and 764 are 8m<sup>2</sup> or less. In the case of private motor boats 3,725 are 20m<sup>2</sup> or smaller. The opposite was the case for the commercial craft where the larger weekly hired craft were the most significant component and the largest groupings around 37-38m<sup>2</sup> and 44-48m<sup>2</sup>. After a period of stability, the number of weekly hired motor boats was once again in decline (Table 4). The temporary recovery in numbers was the result of the company 'Le Boat' bringing a total of 42 boats from Ireland, most of which arrived for the 2009/10 season but which have since gone. This year the total number of hired motor cruisers has dropped below 800 for the first time, even though it is reported that some yards have had an exceptionally good year.

**Table 4 Number of Hired Motor Cruisers**

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016
No.	803	843	878	904	894	869	842	821	789

- 4.6 TR-16 looked at the sensitivity of the present system which revolves around the rate for the private motor boat with a series of multipliers and discounts for other categories. This highlighted the sensitivity of changes to the private motor rate on other classes of vessel. It provided an illustration of how any reduction in the multiplier for hire boats would lead to a need to increase charges in the private fleet to offset the losses in income from the hire fleet. The Group felt the current structure was unnecessarily complicated, difficult to understand, and liable to produce financial shocks for the Broads Authority should the number of tolled hire boats continued to decline.
- 4.7 The Group concluded that there was a clear distinction to be drawn between 'commercial craft' and 'private craft' and between different categories of vessel within the two fleets. After careful analysis, TR-16 concluded that there would be considerable advantages in ascribing different costs per square metre to the different categories of vessels rather than using multipliers and

discounts. Different types of vessel in each fleet would be given independent costs per square metre. By removing all multipliers and discounts, the Authority would have greater flexibility to respond to changes in the composition and number of boats in the different fleets, as well as having a simpler and more transparent toll structure.

- 4.8 TR-16 concluded that the use of discounts complicated the calculation of charges. The Group appreciated that discounts had been introduced at various times over the last 15 years, usually with an aspiration to affect some kind of change in patterns of boat ownership and use. The Group sought confirmation that this had been an effective policy: however, there was little hard evidence to support this assumption.
- 4.9 Initial proposals for a reclassification of vessels in the two fleets were presented to the two member/stakeholder workshops held in April and June 2016 (see Appendix 1). The Group was asked to re-consider its initial recommendation that auxiliary yachts (i.e. sailing boats with an onboard engine) be included in the category of motor vessel and that the reduced charges for vessels using electric propulsion be discontinued.
- 4.10 Arguments put forward by workshop participants that auxiliary yachts were essentially sailing vessels which required the occasional use of an engine to navigate around the Broads system and for safety reasons, were accepted by TR-16. The proposal is to treat auxiliary yachts as a separate class of vessel with a different square metre charge rate.
- 4.11 The case of electric boats was discussed at length within the Group, and then again, following questions from stakeholders and members at the two workshops. The Group considered that the provision of additional infrastructure such as charging points could have a greater impact on the take-up of electric boats. But it was also acknowledged it was important that the Authority's commitment to promote sustainability should not be compromised. TR-16 decided to separate electric motor-powered motor boats as a different class of vessel, with a different square metre charge rate. After lengthy debate, the Group put auxiliary yachts which had an electric engine in the same category as 'motorized sailing vessels' as the primary method of propulsion for both was sail. This has the effect of removing the 'double discount' such vessels have received under the current structure.
- 4.12 Having reviewed and then rejected an internal argument for applying a 'commercial' operating license fee to replace the multiplier, TR-16 decided the most rational, simple, transparent and flexible tolls structure would be one in which each class of vessel both in the private fleet and the commercial fleet were tolled on the basis of a charge per square metre.
- 4.13 The Group concluded that 14 different categories of craft should be identified, as shown in Table 5. Each category would be allocated a different charge per square metre or a flat rate charge.



**Table 5 Categories of vessel for charging purposes**

<b>Commercial Craft</b>	<b>Private Craft</b>
1. Weekly Hired Motor Boats	9. Motor Boats (petrol and diesel)
2. Day Hire	10. Motor Boats Electric
3. Day Hire – Electric	11. Motorised Sailing Craft
4. MCA Passenger boats and BA – Small Passenger Boats	12. Sailing Boats
5. Motorised Sailing Craft	13. Houseboats
6. Sailing Boats	14. Rowing/canoes etc.
7. Houseboats	
8. Rowing/canoes etc.	

- 4.14 In practice, this would mean that all private or commercial boat owners would be able to follow a simple procedure to determine the toll to be charged for their vessel(s). Fourteen tables would be produced: Tables 1-8 would deal with classes of vessel in the Commercial Fleet and Tables 9-14 would deal with classes of vessel in the Private Fleet. Each Table would state what the block area/per m<sup>2</sup> charge is for that class of vessel. This new arrangement would dramatically reduce the number of individual charging categories from around 195 to around 60, demonstrating the degree of simplification involved.

### **Recommendation 3**

#### ***Basis for the calculation of the charges: a flexible charging structure***

Different types of vessel in each fleet should be given independent costs per square metre. For example, there will be a rate per square metre for weekly hired motor boats which will be different from that for private motor boats. This will replace the current arrangements of multipliers and discounts, and provide the Broads Authority with the flexibility to respond to changes in the composition and number of boats in the different fleets.

### **5. Subsidiary matters**

- 5.1 In the course of its deliberations, TR-16 discussed a number of additional issues which are considered below.

#### **5.2 *Wherries***

In the context of the proposed changes the Group examined the impact on different sized vessels. This highlighted the position of the eight wherries currently using the Broads navigation. These are currently classed as private vessels, as those wherries let-for-hire belong to not-for-profit organisations. However, they fit into three different categories: sailing, motorized sailing and motor. They also vary in size from 59 m<sup>2</sup> to 98m<sup>2</sup>. The result of these two factors is that the tolls vary from £325 to £992. The Group recommended that

these were iconic vessels and that all eight wherries should be charged a flat rate and the rate set at a level to reduce the costs for most of the wherries.

### 5.3 *Electric Propulsion*

The Broads Authority has a history of supporting the development and use of electric boating. After extensive discussion, TR-16 recommended that, despite concerns about the limitations of the current technology, the Authority should continue to encourage the use of electric power through lower rates. However it was agreed any boats using diesel generators to power electric engines should be charged at the commercial/private motor boat rate as the consumption of diesel was apparently not very different to that of a conventional diesel powered vessel.

### 5.4 *Boats sold out of the Broads system*

The toll plaque is not transferable to any other vessel and no return of tolls is made in the event of cancellation of the plaque before the end of the tolls year. No refund is available should the vessel be sold and leave the Broads system. TR-16 supported the retention of this policy.

### 5.5 *Adjacent Waters*

The Group reviewed the charges for craft in adjacent waters. There are certain exemptions set out in the Broads Authority Act 2009. Recent court cases have clarified the position in respect of adjacent waters and made clear that the Authority has the powers to levy charges in adjacent waters and that the process it has used for setting those charges, to reflect the interconnected nature with the Broad system and the associated usage, is reasonable. Members considered and confirmed that the charges in these areas should continue to replicate those in the Navigation Area.

### 5.6 *Early payment discount*

The Group examined the basis for the early payment discount for the larger hire boat operators and came to the view that while the staged payment facility for these operators was reasonable, the discount could not be justified and should therefore be withdrawn.

### 5.7 *Toll plaques*

Following the successful trial of the non-display of toll plaques in 2016, TR-16 recommended the trial continues for a further year.

### 5.8 *Short Visit Tolls*

The Group examined the current method for calculating short visit tolls. A 14-day toll is approximately one-third of the full charge. A boat can have up to 28 days in short visits which approximates to two-thirds of the appropriate toll. The Group concluded this was still a sensible approach. It is therefore recommended that the cost of a short visit toll should be on a similar basis as it is currently. However, it was noted that with the proposed structural changes there is likely to be a reduction in short visit income as most short visits are by the smallest size category of boats of under 5 square metres.

5.9 *Mutford Lock*

The current fee for passage through Mutford Lock is £13; an increase from £12 charged in 2015/16. A summary of the income over past 5 years is:

**Table 6 Income from Mutford Lock**

Year	Income
2015/16	£ 5,436
2014/15	£ 6,523
2013/14	£ 9,350
2012/13	£ 8,239
2011/12	£ 7,673

- 5.10 The current annual maintenance budget (including operation fees) is £18,000. The Authority also puts £25,000 from navigation income annually into the Mutford Lock reserve fund. Therefore 30% of annual costs was covered by income from the Lock last year. The Group considered a range of possible charging scenarios based on the 600 lock passages annually. These are shown in Table 7 below.

**Table 7 Charging options for Mutford Lock**

<b>Current Fee</b>	<b>£ 13</b>
Passage income to balance current operation and maintenance cost	£ 30
Passage income to balance with current operation and maintenance cost and contribution to reserves	£ 72
Passage income to balance with operation and maintenance cost (if operation increased to £20,000) and contribution to reserves	£ 93
**Free passage through the lock, as a trial, to see if there is an increase in short visits toll income. Navigation expenditure to absorb running costs.	£ 0

*\*\* Short visit toll books and receipts are issued to the Harbour Master at Oulton Broad who then splits them between the Yacht Station and Lock Office. No distinction is made in the receipt book as to which office issues the licence. We are unable to accurately state which licences relate to vessels passing through the lock.*

- 5.11 The Members recommended that the income should ideally balance the annual costs of operation, i.e. approximately £30 for a one way passage and £45 for a return ticket. In order to encourage some owners to use this access to the Broads more frequently, a multi-trip discount should be investigated.

## 6. Evaluation of Proposals

- 6.1 TR-16 has evaluated its proposals as they have developed by testing them against the proposed Guiding Principles. This has been an iterative process with minor modifications made to clarify the meaning of the Principles whilst questioning, rejecting, adapting or accepting proposals according to how well they express the Principles.
- 6.2 A more formal evaluation was been undertaken by modelling the two primary recommendations and examining the implications for individual boats. A test frame was developed using the same boat numbers used a year ago to formulate the recommendations on charging for 2016-17 and maintaining the same level of income. Income within the 14 proposed boat categories was also kept at similar levels. Different rates per square metre were tested, such that changes in the toll charge for any individual boat were kept below 50%. This showed that based on the identical level of income overall, the number of boats seeing a reduction in the charges would exceed those seeing an increase.

Category	Pay Less	Pay More
Weekly Hire	417	395
Day Hire	146	100
Private Motor Boats	3337	3106
Private Sailing Boats	850	302
Private Motorised Sailing	904	142
Private Electric Motorised Sailing	19	88

- 6.3 TR-16 judged that overall and in the light of the research findings from Insight Track the changes would be affordable for the majority of boat owners and could encourage more small boat use.

## 7. Consultations

- 7.1 The Group has consulted with Members of the Broads Authority, its Navigation Committee, representatives of key stakeholder organisations and private boat owners. Consultation has included:
- 7.2 *Stakeholder Survey*  
The evidence from the Insight Track research has been crucial in getting a handle on factual evidence on the costs of owning a boat and the level of usage. The findings have been widely shared.
- 7.3 *Tolls Workshop in September 2015*  
This critical event included contributions from the Broads Hire Boat Federation (BHBF), British Marine, and the Norfolk and Suffolk Boating Association (NSBA). This identified the key issues and established a degree of consensus about the direction of travel.

#### 7.4 *Tolls Workshop in April 2016*

A second workshop was held with Members on 21 April 2016 at which initial reactions and views were sought on the outline proposals from Member Working Group. There was widespread support for the changes being proposed but the Group was asked to consider particular points in further detail – notably, the wording of Guiding Principle 3; the proposals for dealing with electric/hybrid vessels; and the categorization of auxiliary sailing craft.

#### 7.5 *Tolls Workshop in June 2016*

A further workshop for key stakeholders was held on 14 June 2016 to:

- Update stakeholders on progress made by TR-16
- Seek views on the revised set of principles
- Seek feedback on the main proposals being developed by TR-16

#### 7.6 *Comments Received*

Representatives from the BHBF, the NSBA and other external stakeholder organisations were invited to submit their comments on the draft proposals by the end of July 2016. Responses were received from the BHBF, NSBA and Broads Angling Strategy Group (BASG).

7.7 The **BASG** welcomed the proposed changes and the “*removal of the fixed charge which had resulted in higher costs for the ownership of small craft under 10 square metres representing 28% of the private craft fleet*”. The BASG was concerned about the availability of facilities for small boats, slipways in particular and suggested that “*any reduction in charges for small craft could be offset and used to create a specific improvement fund for implementing improved slipway access. ... This fund would be voluntary in nature, but part of the tolls collection.*”

7.8 TR-16 welcomed the response of BASG and was noted that under the new proposals, Broads tolls would be more directly comparable with those applied elsewhere on East Anglian waterways, particularly for small boats. The BASG idea of a voluntary fund to support the installation of slipways was discussed but TR-16 thought it could not be included as a proposal within this review and needed further consideration.

7.9 The **Broads Hire Boat Federation (BHBF)** “*welcomed the proposed simplification of the tolls charging structure, the decoupling of the rates for hire and private craft and the flexibility that the structure would provide to react to changing circumstances in the future, particularly the size and makeup of the fleets.*”

7.10 The BHBF “*queried whether full consideration was given to the opportunity to separate single screw and twin screw motor boats with a view to levying higher charges on the latter due to the perceived unsuitability for general Broads cruising and higher impact on the environment – e.g. speed, wash draft?*”

- 7.11 As this second point primarily related to private boats the NSBA was consulted on the proposition. The suggestion was not supported by the Association's officers and TR-16 took the view that it ran counter to the ambition for a simpler system. In addition larger boats, which tend to be those with twin screws, would already be charged a higher toll under the new proposals.
- 7.12 The **NSBA** participated in the 2 interim workshops (24 April and 14 June 2016) and the Association's key points were re-affirmed in their letter of 19 July 2016. The Group met Officers of the NSBA and the BHBF on 2<sup>nd</sup> September to discuss their concerns and feedback.
- 7.13 The suggestions made by NSBA to help *clarify the proposed principles so the tolls can be better judged against them* were very helpful and the majority have been incorporated in the Guiding Principles being presented for consideration in this report.
- 7.14 In its letter of 19 July 2016, the NSBA says they *do not agree* [the proposed structure] is *a better system than one including a fixed base element and believe it is contrary to the objective of fairness*. Their case is based on 4 points which had been heard and discussed in both workshops exploring the TR-16 proposals, and were expressed in their letter of 19 July as follows:
- a) *A fixed element recognises that some costs are not dependent on the size of the vessel. That element should be fixed on the basis that each vessel shares equally in the fixed costs incurred in respect of all vessels, regardless of size, such as the costs of administering the tolls system and the costs of the navigational size of the ranger service.*
  - b) *Even with a fixed element, by adopting an additional amount per square metre, the toll calculation is still simple to understand.*
  - c) *The indicated reduction in tolls for small boats (possibly over 62% lower) is unnecessarily generous.*
  - d) *Larger sailing cruisers, an important part of the local heritage of Broadland, will see significant increases (possibly almost 40% more).*
- 7.15 As shown in Section 3 above, TR-16 discussed at length how the 'fixed' and 'variable' elements of the toll had arisen. Officers explained that there had never been an assumption or an accounting principle that allocated the 'fixed' component of the toll against specific items of the Authority's navigation expenditure. Rather, the total annual income from boat tolls is allocated according to the policy needs and strategic purposes as agreed by the Broads Authority. By moving to a single variable rate for the charge, TR-16 remains firm in its view that this is a simpler, more easily understood structure, not least because it clarifies the basis upon which navigation income and expenditure is determined.
- 7.16 The NSBA's perspectives on the fairness of the new proposals in relation to the current structure have also been discussed in depth by TR-16 and at the two workshops. This is a matter of judgement. The Group's view is that the current structure has an unjustified bias against small boats. As the evidence

presented in Section 3 above shows, the tolls represents 14% of total annual boat costs for the smallest boats, compared with the 9% average over the whole fleet. The smallest boats represent the segment of the Broads fleet in steepest decline. The TR-16 group queried the NSBA estimate of a 62% reduction; financial modelling showed the smallest motor boats, instead of paying around £100 per annum would, under TR-16 proposals, be paying in the order of £60-£70, likely to be a 30-40% reduction. This would also bring the Authority's charge for these vessels more in line with charges elsewhere.

- 7.17 NSBA's point about the important contribution that river cruisers make to the local heritage of Broadland was supported by other participants in the two workshops. TR-16 took note of these views and have amended their initial proposals so that these boats are treated more favourably than other boats with an engine (see Section 4 above). The majority of auxiliary yachts will see either reductions or fairly modest increases in their tolls. There are currently 107 electric powered auxiliary yachts that are in receipt of a double discount under the present structure, one discount for being a yacht and a second for having electric propulsion. TR-16 decided to remove what it considered was an anomaly and therefore in this group, 19 vessels will see a reduction in their charge while the majority will see an increase.
- 7.18 In conclusion, the TR-16 has taken NSBA arguments into account during its discussions and, as reflected above, has made some adjustments to its proposals in response.
- 7.19 A report on the proposed new tolls structure was considered by the Authority's Finance, Scrutiny and Audit Committee, on 5 July 2016. The Committee resolved to support both the Guiding Principles and the new Proposals.
- 7.20 At its final meeting on 17 August 2016, TR-16 considered feedback from the BHBF, the NSBA and the BASG; examined a number of outstanding minor matters; and reviewed the outline structure for the Draft Report to be presented to the Navigation Committee.

## **8. Conclusions**

- 8.1 At the outset of the process, it was envisaged that only a few meetings of this Tolls Working Group would be required to come to a decision about the structure of the tolls. In practice it took ten meetings and nearly a year. This was necessary because of the complex inter-related nature of the issues under discussion and the importance of engaging other Members and key stakeholders in the process. The Group has carefully considered the thorny problems of the hire boat multiplier and the fixed and variable calculation and it commends its conclusions for consultation with the Navigation Committee and decision by the Broads Authority.

## Annexe 1: List of items discussed at the Tolls Working Group Meetings

Date	Meeting	Main items discussed
5.10.15	1	Reviewed outcomes from Tolls Workshop; Terms of Reference; scoped the context and determined the breadth of the enquiry; reviewed lessons from 2005, 2008, 2009 and 2012 Tolls Reviews; examined the fixed and variable elements in the navigation charges.
6.11.15	2	Examined 2012 Tolls Review <i>Principles, Criteria and Attributes</i> and performance of current Tolls system; discussed what standards of service could be provided from navigation charge income; decided to explore potential changes to the existing structure on the basis of raising sufficient income for current level of service.
1.12.15	3	Approved Amended Terms of Reference; accepted draft, revised Principles as the basis for the tolls structure; compared the existing fixed and variable method of calculation with a purely variable arrangement; examined justifications for the hire boat multiplier.
15.01.16	4	Considered emerging proposal that the toll could be based solely on a fixed square metre charge for all boats; tested on private motor cruiser fleet; questioned the effectiveness of current discounts; completed the same analysis for the commercial fleet; discussed stakeholder engagement strategy.
25.02.16	5	Continued analysis of the potential impact of a single variable rate per square metre as the basis for the charges; detailed consideration of levels of charges for different types of craft including sailing craft, electric boats, wherries and house boats; debated whether to recommend a single or staged introduction of new structure.
21.03.16	6	Continued detailed analysis of impacts of TRG's proposals on both the private and hire fleets; agreed to hold second workshop to seek views of all B.A. Members /co-opted Members and invited stakeholders on the draft proposals.
13.04.16	7	Decided the format and presentations for 2 <sup>nd</sup> Tolls Workshop.
21.04.16	2 <sup>nd</sup> Tolls Workshop	AIMS: to present the draft proposals of the TRG, seeking feedback on the 5 new Principles; the emerging new tolls structure; possible impacts of the new structure on the B.A.'s Financial Strategy of maintaining the current level of service.
6.05.16	8	Addressed feedback from the Members' workshop, including amendments to the draft set of Principles, and the categorisation of different vessels in the private and hire fleets.
23.05.16	9	Further analysis of categorisation of commercial and private craft; discussed administration of the new structure; discussed format and presentations for a tolls workshop for key stakeholder organisations.
14.06.16	3 <sup>rd</sup> Tolls Workshop	Presented revised principles and proposals to Members/co-opted Members and key stakeholder organisations for discussion and feedback; invited written feedback from key stakeholders.
05.07.16	FSAC	Proposals for new tolls structure considered by FSAC and approved.
17.08.16	10	Discussed all points raised by BHBF/ BASG / NSBA in their written feedback; addressed outstanding issues – charges in adjacent waters; discounts for early payments/refunds; visiting tolls; plaques and registration marks; considered timescale for submitting TRG report to Navigation Committee and the full Authority; and tolls setting for 2017.



## Schedule of Draft Charges for 2017/18

### Hired Craft

- Category 1 Weekly Hire Craft £28.95 per metre<sup>2</sup>
- Category 2 Day Hired boats £44.30 per metre<sup>2</sup>
- Category 3 Day hired electric £30.90 per metre<sup>2</sup>
- Category 4 MCA Passenger Boats and small passenger boats £38.10 per metre<sup>2</sup>
- Category 5 Motorised Sailing craft for hire £23.50 per metre<sup>2</sup>
- Category 6 Sailing Boats for Hire £17.50 per metre<sup>2</sup>
- Category 7 Houseboats for hire £14.95 per metre<sup>2</sup>
- Category 8 Rowing boats, canoes etc. for hire £65.70 per boat

### Private Craft

- Category 9 Motor Boats – petrol and diesel £12.85 per metre<sup>2</sup>
- Category 10 Motor Boats – electric £10.00 per metre<sup>2</sup>
- Category 11 Motorised sailing craft £9.50 per metre<sup>2</sup>
- Category 12 Sailing Craft £8.00 per metre<sup>2</sup>
- Category 13 Houseboats £5.15 per metre<sup>2</sup>
- Category 14 Rowing boats, canoes etc. £32.85 per boat

### Category 1 Weekly Hired Motor Craft – charged at £28.95 per square metre

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
12	11	435.69	337.20	-98.49	347.40	-88.29
13	3	461.75	365.30	-96.45	376.35	-85.40
15	8	512.11	421.50	-90.62	434.25	-77.86
17	1	560.72	477.70	-83.02	492.15	-68.57
18	5	585.02	505.80	-79.22	521.10	-63.92
19	10	609.32	533.90	-75.42	550.05	-59.27
20	15	633.62	562.00	-71.62	579.00	-54.62
21	9	657.92	590.10	-67.83	607.95	-49.97
22	17	682.22	618.20	-64.03	636.90	-45.32
23	10	706.52	646.30	-60.23	665.85	-40.67
24	3	730.83	674.40	-56.43	694.80	-36.03
25	4	755.13	702.50	-52.63	723.75	-31.38
26	5	779.43	730.60	-48.83	752.70	-26.73
27	9	803.73	758.70	-45.03	781.65	-22.08
28	37	828.03	786.80	-41.24	810.60	-17.43
29	10	852.33	814.90	-37.44	839.55	-12.78
30	19	876.64	843.00	-33.64	868.50	-8.14
31	13	900.94	871.10	-29.84	897.45	-3.49
32	11	925.24	899.20	-26.04	926.40	1.16
33	21	949.54	927.30	-22.24	955.35	5.81
34	17	973.84	955.40	-18.44	984.30	10.46
35	23	998.14	983.50	-14.65	1013.25	15.11

36	20	1022.44	1011.60	-10.85	1042.20	19.76
37	73	1046.75	1039.70	-7.05	1071.15	24.40
38	59	1071.05	1067.80	-3.25	1100.10	29.05
39	26	1095.35	1095.90	0.55	1129.05	33.70
40	20	1119.65	1124.00	4.35	1158.00	38.35
41	19	1143.95	1152.10	8.14	1186.95	43.00
42	23	1168.25	1180.20	11.94	1215.90	47.65
43	20	1192.55	1208.30	15.74	1244.85	52.30
44	55	1216.86	1236.40	19.54	1273.80	56.94
45	10	1241.16	1264.50	23.34	1302.75	61.59
46	57	1265.46	1292.60	27.14	1331.70	66.24
47	11	1289.76	1320.70	30.94	1360.65	70.89
48	59	1314.06	1348.80	34.73	1389.60	75.54
49	5	1338.36	1376.90	38.53	1418.55	80.19
50	30	1362.67	1405.00	42.33	1447.50	84.83
51	16	1386.97	1433.10	46.13	1476.45	89.48
52	19	1411.27	1461.20	49.93	1505.40	94.13
54	2	1459.87	1517.40	57.53	1563.30	103.43
40	Diesel powered generator - 1	783.76	1124.00	340.24	1158.00	374.24
48	Diesel powered generator - 3	919.85	1348.80	428.95	1389.60	469.75

**Category 2 Day Hired boats £44.30 per metre<sup>2</sup>**

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
5	4	292.99	215.00	-77.99	221.50	-71.49
6	2	323.14	258.00	-65.14	265.80	-57.34
7	3	353.29	301.00	-52.29	310.10	-43.19
8	17	383.44	344.00	-39.44	354.40	-29.04
9	27	413.59	387.00	-26.59	398.70	-14.89
10	46	443.74	430.00	-13.74	443.00	-0.74
11	52	473.89	473.00	-0.89	487.30	13.41
12	71	504.04	516.00	11.96	531.60	27.56
13	13	534.19	559.00	24.81	575.90	41.71
14	5	564.34	602.00	37.67	620.20	55.86
15	6	592.45	645.00	52.55	664.50	72.05
16	2	620.56	688.00	67.44	708.80	88.24
17	1	648.68	731.00	82.32	753.10	104.42
21	2	761.13	903.00	141.87	930.30	169.17

**Category 3 Day hired electric boats £30.90 per metre<sup>2</sup>**

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
7	3	247.30	210.00	-37.30	216.30	-31.00
9	3	289.51	270.00	-19.51	278.10	-11.41
10	12	310.62	300.00	-10.62	309.00	-1.62
11	9	331.72	330.00	-1.72	339.90	8.18
12	6	352.83	360.00	7.17	370.80	17.97
14	4	395.03	420.00	24.97	432.60	37.57
15	6	414.71	450.00	35.29	463.50	48.79

**Category 4 MCA Passenger Boats and small passenger boats £38.10 per metre<sup>2</sup>**

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
5	1	292.99	185.00	-107.99	190.50	-102.49
6	1	323.14	222.00	-101.14	228.60	-94.54
8	1	383.44	296.00	-87.44	304.80	-78.64
9	2	413.59	333.00	-80.59	342.90	-70.69
10	1 (Electric)	311.45	300.00	-11.45	309.00	-2.45
16	1	620.56	592.00	-28.56	609.60	-10.96
18	1	676.79	666.00	-10.79	685.80	9.01
23	2	817.36	851.00	33.64	876.30	58.94
72	2	2194.92	2664.00	469.08	2743.20	548.28
84	1	2532.28	3108.00	575.72	3200.40	668.12
89	2	2672.85	3293.00	620.15	3390.90	718.05
98	1	2925.87	3626.00	700.13	3733.80	807.93

**Category 5 Motorised Sailing craft for hire £23.50 per metre<sup>2</sup>**

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
12	1	336.35	273.60	-62.74	282.00	-54.35
13	1	350.19	296.40	-53.79	305.50	-44.69
15	1	382.22	342.00	-40.22	352.50	-29.72
16	3	400.40	364.80	-35.60	376.00	-24.40
17	1	418.58	387.60	-30.98	399.50	-19.08
18	3	436.76	410.40	-26.36	423.00	-13.76
21	4	491.31	478.80	-12.51	493.50	2.19
22	1	509.49	501.60	-7.89	517.00	7.51

23	4	527.67	524.40	-3.27	540.50	12.83
24	3	545.85	547.20	1.35	564.00	18.15
25	8	564.03	570.00	5.97	587.50	23.47
26	8	582.22	592.80	10.58	611.00	28.78
29	1	636.76	661.20	24.44	681.50	44.74
30	2	654.94	684.00	29.06	705.00	50.06
34	1	727.67	775.20	47.53	799.00	71.33
35	2	745.85	798.00	52.15	822.50	76.65

### Category 6 Sailing Boats for Hire £17.50 per metre<sup>2</sup>

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
5	70	99.32	85.00	-14.32	87.50	-11.82
6	1	109.54	102.00	-7.54	105.00	-4.54
8	1	129.98	136.00	6.02	140.00	10.02
10	4	150.42	170.00	19.58	175.00	24.58
11	10	204.82	187.00	-17.82	192.50	-12.32
14	2	243.91	238.00	-5.91	245.00	1.09
16	10	268.23	272.00	3.77	280.00	11.77
22	4	341.22	374.00	32.78	385.00	43.78

### Category 7 Houseboats for hire £14.95 per metre<sup>2</sup>

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
23	2	353.38	333.50	-19.88	343.85	-9.53
29	1	426.36	420.50	-5.86	433.55	7.19
31	1	450.69	449.50	-1.19	463.45	12.76
36	4	511.50	522.00	10.50	538.20	26.70
40	2	560.16	580.00	19.84	598.00	37.84
41	1	572.32	594.50	22.18	612.95	40.63
43	4	596.65	623.50	26.85	642.85	46.20
176	1	2214.39	2552.00	337.61	2631.20	416.81

### Category 8 Rowing boats, canoes etc. for hire £65.70 per boat

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
All	192	63.76	63.76	0.00	65.70	1.94

**Category 9 Private Motor Boats – petrol and diesel £12.85 per metre<sup>2</sup>**

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
5	662	99.32	62.35	-36.97	64.25	-35.07
6	226	109.54	74.82	-34.72	77.10	-32.44
7	168	119.76	87.29	-32.47	89.95	-29.81
8	147	129.98	99.76	-30.22	102.80	-27.18
9	131	140.20	112.23	-27.97	115.65	-24.55
10	169	150.42	124.70	-25.72	128.50	-21.92
11	256	160.64	137.17	-23.47	141.35	-19.29
12	271	170.86	149.64	-21.22	154.20	-16.66
13	163	181.08	162.11	-18.97	167.05	-14.03
14	199	191.30	174.58	-16.72	179.90	-11.40
15	268	200.83	187.05	-13.78	192.75	-8.08
16	221	210.36	199.52	-10.84	205.60	-4.76
17	128	219.89	211.99	-7.90	218.45	-1.44
18	147	229.42	224.46	-4.96	231.30	1.88
19	103	238.95	236.93	-2.02	244.15	5.20
20	142	248.48	249.40	0.92	257.00	8.52
21	201	258.01	261.87	3.86	269.85	11.84
22	344	267.54	274.34	6.80	282.70	15.16
23	251	277.07	286.81	9.74	295.55	18.48
24	95	286.60	299.28	12.68	308.40	21.80
25	87	296.13	311.75	15.62	321.25	25.12
26	101	305.66	324.22	18.56	334.10	28.44
27	131	315.19	336.69	21.50	346.95	31.76
28	176	324.72	349.16	24.44	359.80	35.08
29	124	334.25	361.63	27.38	372.65	38.40
30	111	343.78	374.10	30.32	385.50	41.72
31	87	353.31	386.57	33.26	398.35	45.04
32	72	362.84	399.04	36.20	411.20	48.36
33	110	372.37	411.51	39.14	424.05	51.68
34	88	381.90	423.98	42.08	436.90	55.00
35	105	391.43	436.45	45.02	449.75	58.32
36	66	400.96	448.92	47.96	462.60	61.64
37	98	410.49	461.39	50.90	475.45	64.96
38	110	420.02	473.86	53.84	488.30	68.28
39	80	429.55	486.33	56.78	501.15	71.60
40	71	439.08	498.80	59.72	514.00	74.92
41	94	448.61	511.27	62.66	526.85	78.24
42	77	458.14	523.74	65.60	539.70	81.56
43	36	467.67	536.21	68.54	552.55	84.88
44	23	477.20	548.68	71.48	565.40	88.20

45	14	486.73	561.15	74.42	578.25	91.52
46	61	496.26	573.62	77.36	591.10	94.84
47	27	505.79	586.09	80.30	603.95	98.16
48	25	515.32	598.56	83.24	616.80	101.48
49	16	524.85	611.03	86.18	629.65	104.80
50	9	534.38	623.50	89.12	642.50	108.12
51	10	543.91	635.97	92.06	655.35	111.44
52	17	553.44	648.44	95.00	668.20	114.76
53	3	562.97	660.91	97.94	681.05	118.08
54	16	572.50	673.38	100.88	693.90	121.40
55	11	582.03	685.85	103.82	706.75	124.72
56	2	591.56	698.32	106.76	719.60	128.04
57	4	601.09	710.79	109.70	732.45	131.36
60	5	629.68	748.20	118.52	771.00	141.32
62	4	648.74	773.14	124.40	796.70	147.96
63	4	658.27	785.61	127.34	809.55	151.28
64	2	667.80	798.08	130.28	822.40	154.60
65	1	677.33	810.55	133.22	835.25	157.92
67	1	696.39	835.49	139.10	860.95	164.56
69	3	715.45	860.43	144.98	886.65	171.20
70	2	724.98	872.90	147.92	899.50	174.52
71	1	734.51	885.37	150.86	912.35	177.84
76	1	782.16	947.72	165.56	976.60	194.44
84	1	858.40	1047.48	189.08	1079.40	221.00
86	2	877.46	1072.42	194.96	1105.10	227.64
94	1	953.70	1172.18	218.48	1207.90	254.20
96	1	972.76	1197.12	224.36	1233.60	260.84
105	1	1058.53	1309.35	250.82	1349.25	290.72

**Category 10 Private Motor Boats – electric £10.00 per metre<sup>2</sup>**

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
5	160	69.52	48.75	-20.77	50.00	-19.52
6	15	76.68	58.50	-18.18	60.00	-16.68
7	10	83.83	68.25	-15.58	70.00	-13.83
8	8	90.99	78.00	-12.99	80.00	-10.99
9	10	98.14	87.75	-10.39	90.00	-8.14
10	3	105.29	97.50	-7.79	100.00	-5.29
11	8	112.45	107.25	-5.20	110.00	-2.45
12	4	119.60	117.00	-2.60	120.00	0.40
13	7	126.76	126.75	-0.01	130.00	3.24
14	4	133.91	136.50	2.59	140.00	6.09

15	2	140.58	146.25	5.67	150.00	9.42
16	2	147.25	156.00	8.75	160.00	12.75
17	1	153.92	165.75	11.83	170.00	16.08
18	1	160.59	175.50	14.91	180.00	19.41
19	1	167.27	185.25	17.99	190.00	22.74
21	1	180.61	204.75	24.14	210.00	29.39
22	4	187.28	214.50	27.22	220.00	32.72
23	1	193.95	224.25	30.30	230.00	36.05
28	1	227.30	273.00	45.70	280.00	52.70
30	1	240.65	292.50	51.85	300.00	59.35

**Category 11 Motorised sailing craft £9.50 per metre<sup>2</sup>**

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
6	15	99.32	55.50	-43.82	57.00	-42.32
7	16	104.75	64.75	-40.00	66.50	-38.25
8	41	110.18	74.00	-36.18	76.00	-34.18
9	21	115.61	83.25	-32.36	85.50	-30.11
10	87	121.04	92.50	-28.54	95.00	-26.04
11	83	126.47	101.75	-24.72	104.50	-21.97
12	88	131.90	111.00	-20.90	114.00	-17.90
13	70	137.33	120.25	-17.08	123.50	-13.83
14	75	142.76	129.50	-13.26	133.00	-9.76
15	67	149.89	138.75	-11.14	142.50	-7.39
16	56	157.02	148.00	-9.02	152.00	-5.02
17	116	164.15	157.25	-6.90	161.50	-2.65
18	56	171.28	166.50	-4.78	171.00	-0.28
19	19	178.41	175.75	-2.66	180.50	2.09
20	70	185.54	185.00	-0.54	190.00	4.46
21	37	192.67	194.25	1.58	199.50	6.83
22	25	199.80	203.50	3.70	209.00	9.20
23	16	206.93	212.75	5.82	218.50	11.57
24	5	214.06	222.00	7.94	228.00	13.94
25	17	221.19	231.25	10.06	237.50	16.31
26	16	228.32	240.50	12.18	247.00	18.68
27	7	235.45	249.75	14.30	256.50	21.05
28	9	242.58	259.00	16.42	266.00	23.42
29	5	249.71	268.25	18.54	275.50	25.79
30	3	256.84	277.50	20.66	285.00	28.16
31	2	263.97	286.75	22.78	294.50	30.53
35	1	292.49	323.75	31.26	332.50	40.01
37	1	306.75	342.25	35.50	351.50	44.75

<b>Motorised sailing craft with electric motors:</b>						
6	2	69.52	55.50	-14.02	57.00	-12.52
7	5	73.33	64.75	-8.57	66.50	-6.82
8	9	77.13	74.00	-3.13	76.00	-1.13
9	7	80.93	83.25	2.32	85.50	4.57
10	9	84.73	92.50	7.77	95.00	10.27
11	20	88.53	101.75	13.22	104.50	15.97
12	13	92.33	111.00	18.67	114.00	21.67
13	4	96.13	120.25	24.12	123.50	27.37
14	6	99.93	129.50	29.57	133.00	33.07
15	1	104.92	138.75	33.83	142.50	37.58
16	6	109.91	148.00	38.09	152.00	42.09
17	4	114.91	157.25	42.35	161.50	46.60
18	6	119.90	166.50	46.60	171.00	51.10
19	5	124.89	175.75	50.86	180.50	55.61
20	4	129.88	185.00	55.12	190.00	60.12
23	2	144.85	212.75	67.90	218.50	73.65
25	1	154.83	231.25	76.42	237.50	82.67

#### **Category 12 Private Sailing Craft £8.00 per metre<sup>2</sup>**

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
5	479	49.66	39.00	-10.66	40.00	-9.66
6	115	54.77	46.80	-7.97	48.00	-6.77
7	58	59.88	54.60	-5.28	56.00	-3.88
8	112	64.99	62.40	-2.59	64.00	-0.99
9	28	70.10	70.20	0.10	72.00	1.90
10	48	75.21	78.00	2.79	80.00	4.79
11	143	80.32	85.80	5.48	88.00	7.68
12	37	85.43	93.60	8.17	96.00	10.57
13	8	90.54	101.40	10.86	104.00	13.46
14	15	95.65	109.20	13.55	112.00	16.35
15	2	100.42	117.00	16.58	120.00	19.58
16	3	105.19	124.80	19.61	128.00	22.81
17	2	109.96	132.60	22.64	136.00	26.04
18	3	114.73	140.40	25.67	144.00	29.27
19	1	119.50	148.20	28.70	152.00	32.50
21	2	129.04	163.80	34.76	168.00	38.96
23	2	138.58	179.40	40.82	184.00	45.42
24	1	143.35	187.20	43.85	192.00	48.65
32	1	181.51	249.60	68.09	256.00	74.49
34	1	191.05	265.20	74.15	272.00	80.95



**Category 13 Private Houseboats £5.15 per metre<sup>2</sup>**

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
10	1	75.21	50.00	-25.21	51.50	-23.71
11	3	80.32	55.00	-25.32	56.65	-23.67
12	2	85.43	60.00	-25.43	61.80	-23.63
14	1	95.65	70.00	-25.65	72.10	-23.55
15	2	100.42	75.00	-25.42	77.25	-23.17
17	3	109.96	85.00	-24.96	87.55	-22.41
18	1	114.73	90.00	-24.73	92.70	-22.03
19	3	119.50	95.00	-24.50	97.85	-21.65
20	1	124.27	100.00	-24.27	103.00	-21.27
21	2	129.04	105.00	-24.04	108.15	-20.89
22	1	133.81	110.00	-23.81	113.30	-20.51
24	2	143.35	120.00	-23.35	123.60	-19.75
25	1	148.12	125.00	-23.12	128.75	-19.37
26	2	152.89	130.00	-22.89	133.90	-18.99
28	3	162.43	140.00	-22.43	144.20	-18.23
29	1	167.20	145.00	-22.20	149.35	-17.85
30	1	171.97	150.00	-21.97	154.50	-17.47
31	1	176.74	155.00	-21.74	159.65	-17.09
32	1	181.51	160.00	-21.51	164.80	-16.71
33	2	186.28	165.00	-21.28	169.95	-16.33
35	2	195.82	175.00	-20.82	180.25	-15.57
36	4	200.59	180.00	-20.59	185.40	-15.19
37	1	205.36	185.00	-20.36	190.55	-14.81
38	2	210.13	190.00	-20.13	195.70	-14.43
40	1	219.67	200.00	-19.67	206.00	-13.67
41	2	224.44	205.00	-19.44	211.15	-13.29
42	1	229.21	210.00	-19.21	216.30	-12.91
44	1	238.75	220.00	-18.75	226.60	-12.15
45	1	243.52	225.00	-18.52	231.75	-11.77
46	1	248.29	230.00	-18.29	236.90	-11.39
48	1	257.83	240.00	-17.83	247.20	-10.63
49	2	262.60	245.00	-17.60	252.35	-10.25
50	1	267.37	250.00	-17.37	257.50	-9.87
61	1	319.84	305.00	-14.84	314.15	-5.69
62	1	324.61	310.00	-14.61	319.30	-5.31
75	1	386.62	375.00	-11.62	386.25	-0.37
110	1	553.57	550.00	-3.57	566.50	12.93

**Category 14 Private Rowing boats, canoes etc. £32.85 per boat**

Size in Meter <sup>2</sup>	Number of craft	Toll Paid (£) in 2016/17	Toll (£) 16/17 under new structure	Difference in cash (£) terms	Proposed toll (£) for 2017/18	Difference in cash (£) terms
All	1576	31.88	31.88	0.00	32.85	0.97