Navigation Committee

AGENDA

Thursday 3 September 2015

1.00pm

		Page	Time
1.	**To receive apologies for absence**		
2.	**To note whether any items have been proposed as matters of urgent business**		
3.	**To receive Declarations of Interest**		
4.	**Public Question Time** To note whether any questions have been raised by members of the public		
5.	**To receive and confirm the minutes of the Navigation Committee meeting held on 4 June 2015**	3 – 12	
6.	**Summary of Actions and Outstanding Issues following Discussions at Previous Meetings** Report by Administrative Officer	13	
7.	**Hickling Broad Enhancement Project Proposal** Report by Director of Operations (herewith)	14 – 37	
8.	**Boat Insurance Audit** Report by Head of Safety Management (herewith)	38 – 40	
9.	**St Olaves Marina, Beccles Road, St Olaves** Report by Head of Planning (herewith)	41 – 44	
10.	**Mutford Lock Maintenance and Reserve** Report by Rivers Engineer (herewith)	45 – 51	
11.	**Annual income and expenditure: 2014/15** Report by Head of Finance (herewith)	52 – 56	
12.	**Navigation Income and Expenditure: 1 April to 30 June 2015 Actual and 2015/16 Forecast Outturn** Report by Head of Finance (herewith)	57 – 68	

		Page	Time
13.	**Construction, Maintenance and Environment Work Programme Progress Update** Report by Head of Construction, Maintenance and Environment	69 – 74	
14.	**Chief Executive's Report** Report (herewith). For information only	75 – 87	
15.	**Current Issues** Open forum		
16.	**Items for Future Discussion**		
17.	**To note the date of the next meeting – Thursday 22 October 2015 at Yare House, 62-64 Thorpe Road, Norwich commencing at 1.00pm**		
18.	**Exclusion of the Public** The Committee is asked to consider excluding the public from the meeting under section 100A of the Local Government Act 1972 for consideration of the items below on the grounds that they involve the likely disclosure of exempt information as defined by Paragraphs 1 and 3 of Part 1 of Schedule 12A to the Act as amended, and that the public interest in maintaining the exemption outweighs the public benefit in disclosing the information		
19.	**To receive and confirm the exempt minutes of the Navigation Committee meeting held on 4 June 2015**	88 – 91	
20.	**Leasehold Moorings** Report by Director of Operations (herewith)	92 – 94	
21.	**Pre-Application Discussions on Land East of Norwich** Report by Head of Planning (herewith)	95 – 100	

Navigation Committee

Minutes of the meeting held on 4 June 2015

Present:

Mr M Whitaker (Chairman)

Mr K Allen	Sir P Dixon	Mr J Knight
Miss S Blane (6/1- 6/11)	Mrs L Hempsall	Mrs N Talbot
Mr W Dickson	Mr M Heron	Mr B Wilkins
Mr Alan Goodchild		

In Attendance:

Ms N Beal – Planning Policy Officer
Ms E Guds – Administrative Officer (Governance)
Dr D Hoare – Environment and Design Supervisor
Ms A Leeper – Asset Officer
Ms A Long – Director of Planning and Resources
Dr J Packman – Chief Executive
Mr R Rogers – Head of Construction, Maintenance and Environment
Mr A Vernon – Head of Ranger Services
Mrs T Wakelin – Director of Operations

Also Present:

Prof J Burgess –Chairman of the Authority
Mr S Shortman – Solicitor
Mr J Ash – Broads Authority Member

6/1 To receive apologies for absence

The Chairman welcomed everyone to the meeting including members of the public and Jacquie Burgess, Chairman of the Broads Authority. The Chairman also welcomed John Ash, member of the Broads Authority and Stuart Shortman as the Solicitor.

Apologies for absence were received from Ms Linda Aspland and Mr P Durrant and the Chairman reported that, although unable to be present, Phil Durrant had provided comments which would be fed into the discussions.

6/2 To note whether any items have been proposed as matters of urgent business/ Variation in order of items on the agenda

No items had been proposed as matters of urgent business

6/3 To receive Declarations of Interest

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

6/4 Public Question Time

There were no public questions.

6/5 To Receive and Confirm the Minutes of the Meetings Held on 23 April 2015

The minutes of the meeting held on 23 April 2015 were confirmed as a correct record and signed by the Chairman after some minor amendments.

6/6 Summary of Actions and Outstanding Issues Following Discussions at Previous Meetings

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

The Chief executive updated members on progress made drafting a programme for workshops and reminded members of the upcoming Annual Site visit in July.

Members noted the report.

6/7 Mutford Lock

Members received a report which set out the background to the Broads Authority's involvement with Mutford Lock, its current condition and proposed future management. Members were informed that the report was in two stages and that a follow up report including costs for further recommended capital works would be prepared for later in the year.

Members were updated that although there were still some issues the lock was now operational. The Head of Construction, Maintenance and Environment explained that repairing the lock was a long and complex process because the majority of the problem was under water which made access difficult and expensive. He further commented that the hydraulic opening mechanism put more pressure on the gates than hand 'cranking', and that the engineers are looking at options to relieve the hydraulic pressure.

Members were also informed of a possible increase in the annual operating contract cost of up to £20,000, which would either needed to be funded from navigation income or a doubling of the lock fee.

A concern however was not to make the Broads too expensive to use and visit to which the Collector of Tolls responded that the BA in the past had reduced the tolls and charged large boats coming through the locks for 7 days

or less for only 50% of the fee. A member reminded the meeting that the Broads Tolls Review of 2012 recommended that the Authority should consider a combined lock fee and short visit toll to encourage visitors into the Broads via Mutford Lock, and suggested that this idea be considered in order to promote greater use of the lock and therefore reduce the operating cost per passage. Only 5-10% of maritime visitors to Lowestoft currently pass through Mutford Lock on to the Broads.

A Member asked for a comparison of similar lock passage fees in Holland and it was confirmed by another member that the service is usually free.

Members were reminded that the Authority was in the process of resolving the outstanding freehold transfer and that a meeting on the 28 May was held in relation to some outstanding legal points. The Asset Officer updated members that the tripartite agreement had been finalised and the Harbour Revision Order is currently being drafted for submission. The Director of Operations added that on conclusion of the Harbour Revision Order the Authority would be in a better position to see whether to stay with Sentinel Leisure Trust or if they should consider adopting a different model.

Members welcomed the report.

6/8 Status of Broads: Condition and Use

Members received a report which updated the current position in relation to the status of Broads water bodies as previously requested for their information.

A member expressed concerns in regard to the report as he believed that point 2.4 was open to misinterpretation because in his opinion not all artificial created waterbodies were necessarily closed to navigation at common law. In addition he disagreed with Point 2.5 in relation to how public right to navigation could be established and believed this to be incorrect because the ownership of land (Crown or otherwise) had no direct bearing on the right to navigate. He pointed out that a right to navigate could be established by long usage.

The Director of Operations responded that this was the legal advice BA had received and that the full advice had previously been set out in the report to the Oct 2014 Navigation Committee meeting.

While discussing navigable and closed broads members recognised that as part of the Broads Plan development process the Authority would look at discussing increased public access with the stakeholders.

While some members did not believe it necessary for the broads to be 100% navigable and found it acceptable for some broads to remain closed for conservation purposes, others believed that private owners had a duty of making a contribution and that therefore controlled public access might be what was expected from them. A member pointed out that public access and

the right to navigate were two separate responsibilities of the Authority and were not the same thing as each other. In addition to reaching agreements for public access, the Authority should not lose sight of its responsibility to improve and develop as well as to maintain the navigation.

In general the Committee agreed that negotiating public access with the landowners would be the best way forward but to keep sight of all three statutory purposes of the Authority while doing this.

Members welcomed the report.

6/9 Riverbank Stabilisation Guide and Mooring Guide

Members received a report which presented revised guidance on riverbank stabilisation and the design of moorings. This would form background evidence and helped the implementation of policies in the reviewed Local Plan, as well as providing useful guidance to landowners. The views of the Committee were sought prior to the guides being subject to a six week period of public consultation. Officers confirmed that the leaflets would be used in a similar way to a Supplementary Planning Document and welcomed comprehensive member comments to help shape this document.

A member suggested that before the report was consulted on it should be circulated to the Environment Agency and BESL as both were consultees as part of the main consultation and therefore their views would be taken into account.

It was also recommended for ‘angling’ to be added as a consideration in the proposal and noted that ‘matting’ was not believed to be maintained well enough, being sometimes dislodged by boats coming into contact with the bank and creating a potential hazard to navigation as well as removing erosion protection.

A concern was raised in relation to trees as in some places they were obstructing the waterways making it difficult and sometimes impossible to sail and therefore it was suggested trees would need to be cut back.

The Senior Waterways and Recreation Officer acknowledged the problem and added that another issue was that trees shade blocked out plant growth like reed which was valuable when protecting floodwalls. He stipulated however that tree regulation would need to be balanced and therefore agreed it would be a good idea to cross reference the report with the Tree Guidance leaflet, which although not policy could still be consulted on as guidance.

Members were concerned about the loss of informal moorings as piling was removed. One Member commented that the apparent presumption against piling could lead to a continued loss of ‘quiet’ moorings located away from busy marinas and villages, which were part of the heritage of the Broads. He also commented that engineered banks had been a feature for over 100 years and could hardly be described as non-traditional.

A Member requested that references to ensuring 'no impact on the navigation channel' should be modified to read 'no unacceptable impact…', so as not to create a presumption against all new river moorings.

A member questioned the need for prescriptive guidance relating to signage and suggested that this could be dealt with by site-specific conditions. A member questioned whether prescriptive generalised statements such as 'surfacing behind moorings should be kept as natural as possible' were appropriate or objective. The use of granite chippings at some locations, for example at How Hill, was also questioned as it creates mess and damage when this is walked onto vessels.

One member believed that as ecological management of banks and management of navigation could be quite challenging and only a few had experience in designing riverbanks, the report and guidance was welcome and needed.

Subject to the incorporation of members' comments the Committee supported the guides going forward for public consultation.

6/10 Broads Plan 2011: Review of Progress

The Broads Plan is the strategic management plan for the Broads. The current Plan was adopted in May 2011 and the review of the Plan had been identified as a Strategic Priority for 2015/16. It was anticipated that the revised Plan would be adopted in March 2017. Members received a report which set out a summary of progress made against the objectives identified in the current Broads Plan.

The Director of Planning and Resources pointed out that progress had been made against almost every objective. She suggested consideration of those which had been more problematic could be discussed in a workshop.

One member advocated a new approach to the Broads Plan which would be less prescriptive, but the majority believed that there were too many big issues like Climate Change and Flood Alleviation which should not be discarded and that being prescriptive was necessary in order to see which objectives had been achieved and which ones still needed more work

The Chief Executive highlighted that the Broads Plan was not written for the Broads Authority but for the Broads so it was important to get the balance right.

Members agreed that the Authority should not become complacent and simply be looking at what was economically achievable but recognised that it was their job not only to maintain the Broads but also to improve it. Members acknowledged that although they would need to be realistic in their approach, they would like to remain aspirational and ambitious.

Members welcomed the report.

6/11 Construction, Maintenance and Environment Work Programme Progress Update

Members received a report which set out the progress made in the delivery of the 2015/16 Construction, Maintenance and Environment Section work programme and members were informed that their view was sought specifically in regards to the proposed changes being suggested to the Waterways Specification.

Members were reminded that due to recent dredging work and investigation of the bed material in three locations, it had become apparent that achieving the original waterways specification was not possible in some localised areas within the scope of the Sediment Management Strategy and that the Authority only carried out maintenance dredging, which meant removing accumulated silt and not natural bed material. Members were informed that a revision was being proposed to the waterways specification depth for three localised sites in the Broads navigation. Each of these sites was historically known to have shallow areas and the proposed revised specification depths would reflect the reality of the depths in these areas.

It was suggested that water levels may have changed. Members recognised that presenting accurate water depths and setting appropriate Waterway Specification navigation depths was a complex issue which needed a proper consultation and accurate figures. Therefore they suggested that the Authority's staff provide more detail regarding current water depths, characterisation of the bed sediments, and a demonstration of the calculation of mean low water levels, for each of the three areas under revision.

A member reminded the committee that the Authority had a duty not merely to maintain but to improve the navigation and that improvements were desirable where practical. Maintaining an average water depth, as proposed in the report on page 67, was meaningless in navigational terms and would result in skippers of certain craft having to calculate the probabilities of grounding.

The Environment and Design Supervisor agreed that measuring depths and mean water levels was a very complex process and that the proposed information on bed character, water depths and mean low water modelling would be provided.

The Head of Construction and Maintenance expressed concerns about the removal of natural bed material but members remained more concerned about ensuring adequate depth. A member questioned the potential conflict with the Authority's conservation responsibilities if it removed natural bed material.

RESOLVED by 7 votes to 2

that before the agreed specifications are altered, the committee requested that further detailed information to be presented in a report including information on bed character, water depths and mean low water modelling be brought to a future meeting.

6/12 Chief Executive's Report

The Committee received a report which summarised the current position in respect of a number of projects and events, including decisions taken during the recent cycle of committee meetings.

In regard to Breydon Water Water-Skiing consultation the Director of Operations explained that a report would be brought back to the December meeting.

The Director of Planning and Resources confirmed that the Enforcement Matter relating to Thorpe Island, was heard in the High Court on 19 May and that the Judge's decision was expected soon.

A member noted that he did not think the usage of post-it notes in the report was appropriate as it could lead to misinterpretation of Hoveton Great Broad being seen as a priority project and was not a professional way of communicating the conclusions of any workshop or meeting. The Chair of the Authority explained that the post-it notes were an illustration of an exercise held at the Lake Review Workshop to encourage debate.

A concern was expressed that the use of this illustration had an equality of access to information implication for one of the serving members of the Authority

In response to a question, the Director of Planning and Resources updated members that a pre-application presentation in relation to the Generation Park development would take place before the next planning committee on 26 June. A similar approach was being adopted by the City Council as this would be a joint application. The application is expected to be submitted in July and it would go to the Navigation Committee in September.

Head of Ranger Services updated members of a residential abandoned vessel near Carrow Bridge and said they were trying to locate the owner to fund removal.

It was noted that when mentioning operators in item 9.3 the report was referring to operators of auxiliary yachts and unpowered craft as yachts were currently excluded from the scope of the Hire Boat licencing scheme.

A member mentioned that when he enquired why there had been no further update on the Prymnesium issue, the Environment Agency responded that this was now old news. The Senior Waterways and Recreation Officer said he

would be attending a meeting of all the organisations involved in managing such incidents which was going to discuss a communications protocol should further incidents occur.

It was noted that as the topic of adjacent waters was required to be discussed in a closed session the matter would be addressed later on in the agenda after Exclusion of the Public.

Members noted the report.

6/13 Current Issues

There were no current issues members wished to discuss.

6/14 Items for future discussion

There were no items for future discussion.

6/15 To note the date of the next meeting

The next meeting of the Committee would be held on Thursday 3 September 2015 at Yare House, 62-64 Thorpe Road, Norwich commencing at 1pm.

6/16 Exclusion of the Public

RESOLVED

that the public be excluded from the meeting under section 100A of the Local Government Act 1972 for consideration of the items below on the grounds that they involve the likely disclosure of exempt information as defined by Paragraph 3 of Part 1 of Schedule 12A to the Act as amended, and that the public interest in maintaining the exemption outweighs the public benefit in disclosing the information.

6/17 To receive and confirm the exempt minutes of the Navigation Committee meeting held on 23 April 2015

The exempt minute of the meeting held on 23 April 2015 was confirmed as a correct record and signed by the Chairman.

6/18 Marine Management Organisation and The Crown Estate Licensing of Works in the Broads

Members received a report which summarised the licensing requirements of the Marine Management Organisation (MMO) and the Crown Estate, in the context of appropriate licensing for the Authority's own works and the third party guidance and application process for the Broads Authority's navigation Works Licensing scheme.

RECOMMENDED

(i) a proposal of a joint agreement with the MMO on joint licencing for works in the Navigation area.

In relation to the Crown Estate

(ii) to reject the proposed joint arrangements with the Crown Estate

6/19 Tolls in Adjacent Waters

Members received a short presentation concerning an appeal brought by an owner of a vessel in adjacent waters against their recent conviction/sentence. The Director of Operations defined what adjacent waters were and clarified when and why it was required for boats in these waters to pay tolls. The Collector of Tolls outlined the time line and the outcome of the court case while the Chief Executive raised the implications of the outcome of the court case for the Authority.

A member of the committee was advised to consider their position by the Solicitor at on the basis of a potential disclosable pecuniary interest. The member left the meeting having expressed that they did so under protest, but did not wish to prevent the committee from considering the issue.

RESOLVED by 6 votes to 1

that members supported the Authority's action in appealing the judgement in this case

The meeting concluded at 5.10 pm.

Chairman

APPENDIX 1

Code of Conduct for Members

Declaration of Interests

Committee: Navigation Committee

Date of Meeting: 4 June 2015

Name **Please Print**	**Agenda/ Minute No(s)**	**Nature of Interest** **(Please describe the nature of the interest)**
Mr K Allen		Member of the Broads Angling Strategy Group
Mr A Goodchild		MD Goodchild Marine, Chair of BMFCM, toll payer and landowner
Mr B Dickson	8	toll payer and landowner
Mr P Dixon		As previous
Mr J Knight	6-13 & 6-_	Hire Boat Operator, Toll Payer, Director of Broads Holiday Businesses, Director of business where boat moored in relation to adjacent waters matter
Mr M Heron	6-13	Toll Payer, Landowner, Member of British Rowing, Norwich RC, NSBA, RCC, Chair Whitlingham Boathouses
Mrs N Talbot		Toll Payer, NSBA Member and Member of NBYC
Mr M Whitaker	6-13	Toll payer, Hire Boat Operator, BHBF Chairman
Mr B Wilkins		Toll Payer, HBSC, NSBA, RCC

Navigation Committee
3 September 2015
Agenda Item No 6

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

Date of Meeting and Minute No	Discussion	Responsible Person	Summary of Actions and Outstanding Issues
23 April 2015 Minute 5/20 **Items for future discussion**	Members would like to see a programme being set for more future workshops.	Chief Executive	Following agreement at the July meeting of the Broads Authority, the following dates as part of the Member Workshop Programme have been confirmed: Finance and Statements of Accounts – 22 Sep 15 Tolls Workshop – 23 Sep 15 Broads Plan Review – 7 Oct 15 Details regarding further workshops will follow nearer the time.
4 June 2015 Minute 6/12 **Chief Executive Report**	The Director of Planning and Resources confirmed that the enforcement matter relating to Thorpe Island was heard in the High Court on 19 May and that the Judge's decision was expected soon.	Director of Planning and Resources	Decision handed down on Thursday 6 August 2015. Judge upheld the previous Inspector's decision and dismissed all claims by the Appellant. Planning Committee considering the matter on 21 August 2015.
4 June 2015 Minute 6/12 **Chief Executive Report**	Head of Ranger Services updated members of a residential abandoned vessel near Carrow Bridge.	Head of Ranger Services	The vessel moored near the bridge has moved but there is still a trespass residential boat owner, who is occasionally joined by other vessels, further downstream towards the Trowse bridge.BA planning is aware.

Navigation Committee
3 September 2015
Agenda Item No 7

Hickling Broad Enhancement Project Proposal
Report by Director of Operations

Summary: This report sets out the details of a proposal for a master plan project for the enhancement of Hickling Broad. It sets out the background and context to the project, as well as explaining the stakeholder involvement to date.

The views of the Committee are sought on the following matters:

(i) the details of the proposal including the draft vision, and preference for the project elements as set out in Section 6.2; and

(ii) the level of support for the project, and in particular the financial provision required as set out in Section 3 and Section 4, summarised in Section 7.

1 Background

1.1 In September 2014 members were advised that work had started to consider the feasibility of large scale dredging works at Hickling Broad, as a result of the increasing number of complaints from users of the area as well as the local Parish Council, Sailing Club and adjacent businesses.

1.2 The Committee was asked for guidance on the level of priority which should be attached to developing a scheme, and it was agreed that more details concerning the project options and budget costings were required in order to take a view.

1.3 Since then, the Broads Authority has confirmed that the Hickling project was a priority and adopted the following strategic objective for 2015/16:

'Develop a long-term approach for the management of Hickling Broad, building on scientific evidence from the Broads Lake Review. In the short term, progress development of a number of smaller projects to meet immediate concerns.'

1.4 A workshop to discuss the outputs of the Lake Review was held earlier in the year which a number of members attended, and this work provided a comprehensive scientific assessment of all previous lake restoration work in the Broads and its impacts and effectiveness.

1.5 The outputs from the Review included a dossier in respect of Hickling Broad, which included consideration of management options to improve the

ecological condition of the Broad, and in combination with the acknowledge need to dredge for navigation and access needs, provide a powerful driver for the development of a multi benefit project.

2 Project Development

2.1 In order to develop long-term approach for the management of Hickling Broad an officer Project Group has been established to include all the required expertise and experience. A consultative approach has been adopted with a wide range of stakeholders and interested parties in order to help identify the project objectives.

2.2 Whilst the scope for the Broads Authority proposed project is focussed on in-lake enhancement work, the Authority also continues to work with partners through the Internal Drainage Board led Brograve Partnership and the wider Broadland Rivers Catchment Partnership on the development and support for adoption of catchment measures to improve the aquatic environment. An assessment of the rural diversification options for the Upper Thurne catchment is proposed as part of the proposed external funding bid (see section 4). Although it is recognised that source control measures provide a more sustainable and long term solution and can contribute a wide range of benefits beyond food production, they are voluntary. In addition any changes to water level and agricultural management need to be made with these long term benefits in mind as they are likely to be high cost. The Authority is therefore promoting in-lake measures to enhance the broad in the shorter term, for the benefit of all interests.

2.3 As a starting point it has been useful to look to review the current adopted vision for Hickling which is captured within the Upper Thurne Water Space Management Plan. A workshop was held with the Upper Thurne Working Group (UTWG) in early June 2015 which reviewed the baseline data and also considered the opportunities and issues that an enhancement project could promote. Using the workshop outputs, officers have been aided to develop an interim vision which could be delivered in the short – medium term, pending further catchment measures. A project proposal document which includes a draft revised interim vision statement as well as the agreed project areas and guiding principles has been drafted and is attached as Appendix 1, upon which members views are sought. The proposal document also considers the plans in the context of planning policies, and identifies the potential issues/ dis-benefits that need careful monitoring and mitigation measures.

2.4 Throughout the development additional high level discussions have also been held with partner organisations which include the Environment Agency, Natural England, and the Norfolk Wildlife Trust the landowner. A detailed technical meeting to review the Natural England application, and pre-planning advice has been sought to aid the consenting processes, and further stakeholder consultation has also been undertaken with the Broads Forum. Specific advice in respect of prymnesium has also been sought from the John Innes Institute and data shared with a prymnesium researcher, Johannes Hagström, in Sweden.

3 Project Plan and Timescales

3.1 Given the urgent need for dredging to maintain access to Hickling village and associated facilities/businesses following the deferral of the project from last year, Natural England consent has been sought for initial works to complete erosion protection at Hill Common and undertake some additional dredging at the north end of the navigation channel which are due to be carried out in November 2015. This work has planning permission in place, and will also be a useful local trial of the Nicospan technique for providing bankside protection and stabilisation. To support the application an Environmental Report has been prepared which details the proposed works, sets out the Habitats Risk Assessment and includes the detailed monitoring plan.

3.2 Additional budget of £34,500 is required to purchase/ hire the additional resources needed to complete these works. The dredging method proposed is to conventionally dredge using in house labour and plant as far as possible, but to reduce the risk of Prymnesium, additional mitigations are proposed which includes the addition of a 'moon pool' to the excavator, and additional silt curtains. To maximise the volume of material which can be deposited in Duck Broad Island, it is also planned to hire a concrete pump to offload, which will allow the rear of the island to be reached.

3.3 Members support is sought for a budget increase of £21,000 with the remaining amount to be funded by deferring Bure Mouth dredging to next year. The details of this budget request are further set out in the Income and Expenditure report on this agenda.

3.4 It is proposed that other elements of the vision would be delivered in a phased approach over future years, subject to further feasibility work and detailed design, funding availability and individual planning and other consents as required. Taking account of the physical and environmental constraints of operating on the site an annual window for dredging work has been identified as a maximum of 12 weeks per annum, although there is a possibility that construction works could take place outside this period. Therefore, to deliver the vision as a whole is likely to be a medium – long term commitment of up to 10 years. It should be noted that this commitment would mean a reduction in the amount of dredging completed elsewhere in the Broads whilst this project is ongoing.

3.5 Given the complexity of the site in terms of environmental factors, engineering feasibility and the monitoring requirements it must be stressed that plans at this stage are outline only. It will be important to retain a flexible approach to project delivery and will be subject to change depending on monitoring results. It is therefore proposed that regular reporting on progress to members and stakeholders would be undertaken throughout the project life.

4 Funding Implications

4.1 The Authority is currently investigating the possibility for European external funding and has submitted an Expression of Interest form for Interreg North Sea Region funding with a number of European partners. The Authority has submitted a number of work packages for lake, fen and catchment management under an initial budget of £1,400,000. These include:

- Hickling Broad Enhancement Project
- Economic assessment of diversification in the Upper Thurne catchment
- Beneficial reuse of fen/peat arisings
- Supporting school's curriculum development
- Developing volunteer surveyors
- Developing a water code and communication with water users

4.2 Outline costings for the Hickling Broad Enhancement Project have been developed and are summarised below to identify the potential scale of the budget required, and will assist in preparing a detailed external funding bid as well as identifying the amount of match funding required to be found by the Broads Authority using navigation income and National Park Grant.

Item	Estimated Volume(m3)	Estimated Cost (£) inc. BA labour/plant costs	Estimated Period (weeks)
Dredging	7,000	140,000	12
Mud pumping	40,000 volume may increase subject to mobilisation	800,000	60
Construction costs	Subject to design a) b)	 200,000 679,000	 50 70
Total		**£1,140,000** **£1,619,000**	102 weeks **6 - 10 years**

4.3 Interreg funding is usually available for projects over a 3-4 year period, and therefore would only be able to cover a proportion of the identified works. Funds can be available for 50% of overall project costs, and match funding can be provided in the form of staff time as well as cash contributions. The potential to gain additional match funding to reduce the project risk is being assessed.

4.4 With the above identified timescales it is proposed that the Authority continues to implement the plan over a longer period using in house labour and equipment as far as possible, whilst continuing looking for alternative sources of funding. On this basis it is proposed that an annual cash budget provision of £60,000 be included in future financial strategy development to support the

labour/ plant costs which are already included in salary and equipment budgets. This would equate to 2% per annum if funded solely from tolls.

5 Desirable Outcomes

5.1 It is envisaged that the outcomes from the delivery of the Hickling Broad Enhancement Project would include:

- Achievement of agreed waterway depths in the marked channel and identified priority areas, improving access to the staithe and local clubs and businesses
- improved aquatic environment in sheltered bays providing more reed bed, better water quality, water plants and higher numbers of water birds
- beneficial reuse opportunities for dredged material
- increased expertise and understanding in matters relating to water quality in Hickling Broad, including dealing with Prymnesium
- improved understanding by local communities, visitors and partners of the requirement to, and importance of, undertaking integrated water management projects to enhance the special qualities of the Broads.

6 Summary

6.1 Through the consultation process officers have developed proposals for a multiple benefit project on Hickling Broad, and this has received wide ranging in principle support from stakeholders. On this basis the Navigation Committee is asked to endorse the project in principle, and is also asked to provide detailed comments on the acceptability of the project elements.

6.2 In particular, members' views are sought on the following:

(a) Interim vision as set out in proposal document
(b) Project elements
- Dredging and beneficial reuse of sediment
- Bank restoration works
- Creation of refuge areas/ island construction
- Research needs

It would be helpful if members provide guidance on which areas are favoured/ supported and should be prioritised for the early stage delivery work.

7 Financial Implications

7.1 To summarise the financial implications of the project

Phase	2014/15	2015/16	2016/17	annual
1 – urgent dredging at Hickling Pleasure boat and Hill	Work deferred	Total cash project cost £34,500, additional budget of	completed	-

Common erosion protection		£21,000 required		
2 – Elements of masterplan phasing to be determined	-	Development of Interreg bid	£60,000 as either match funding or full budget	£60,000 on going, period depends on success of external bid

8 Next Steps

8.1 Following consideration by Navigation Committee further consultation will be carried out including a presentation on the masterplan approach to the Planning Committee prior to the master plan being considered by the Broads Authority at the end of September to endorse the approach.

8.2 It is also planned to carry out further consultation with members of the public and local residents at the Thurne Parish Forum, and dates are currently being canvassed for this meeting. A meeting is also being sought with the Hickling Broads Sailing Club and the Norfolk and Suffolk Boating Association to discuss the proposals in more detail.

8.3 A response to the Interreg Expression of interest is expected in November, and should this be supportive, detailed design work for the full application will have to be completed by February 2016.

Background papers: None

Author: Trudi Wakelin
Date of report: 13 August 2015

Broads Plan Objectives: BD4.1

Background papers: APPENDIX 1 – Project proposal

APPENDIX 1
Aug 2015

Hickling Broad Enhancement project proposal

Background

The Broads Authority has identified the following strategic objective for 2015/16:

'Develop a long-term approach for the management of Hickling Broad, building on scientific evidence from the Broads Lake Review. In the short term, progress development of a number of smaller projects to meet immediate concerns.'

The Lake Review included a dossier on Hickling Broad, which reviewed all known data through case history. This lead to a number of conclusions:

- Hickling cannot be viewed in isolation and its water quality is highly responsive to the drainage and agricultural management within its general catchment, but especially of Horsey Mere
- External factors which cannot be controlled, such as weather and tidal conditions and bird numbers, influence the effectiveness of any management activities
- Water plants respond to, but also promote changes in environmental parameters, so underlying change mechanisms can prove hard to discern
- Although the mechanisms which originally switched the lake are well understood, the decline of Chara and other vegetation species in Hickling in the early 2000's cannot be explained with any certainty, and therefore the confidence in the effectiveness of any form of management is low.

Three connected management options were identified;

1. Changes in catchment management through reversion of arable land to grazing pasture at some locations and conversion to shallower drainage would lead to reductions in iron, phosphorous and salinity inputs to the benefit of Horsey Mere, Hickling Broad and the Upper Thurne
2. Source control, possibly accompanied by increased freshwater input from the Catfield catchment, would reduce phosphorous inputs and improve flushing and dilution,
3. Sediment removal – whilst the nutrient reduction potential of sediment removal is unlikely to be significant, it may create benefits of bed stabilisation, seed bank exposure, and habitat creation using dredged material.

The Broads Authority continues to work through both the Internal Drainage Board led Brograve Partnership and the wider Broadland River Catchment Partnership to adopt catchment measures aimed to improve the aquatic environment. An assessment of the rural diversification options for the Upper Thurne catchment is proposed as part of the proposed external funding bid. Although it is recognised that source control

measures provide a more long term and sustainable solution and can deliver a wide range of benefits beyond food production, they are voluntary. In addition any changes to water level and agricultural management need to be made with these long term benefits in mind as they are likely to be high cost. The Broads Authority is therefore promoting measures to enhance Hickling Broad in the shorter term, for the benefit of all interests.

Proposed Vision

In-lake enhancement measures have resulted in refuge areas in quiet bays and sheltered areas, which provide conditions for water plants to flourish and suitable habitat for fish and birds. These areas are managed for their habitat and wildlife conservation value. The marked channel is managed to maintain agreed depth and water plant cutting specifications, to allow boat users to access the staithe and local businesses, as well as to enable the local clubs to enjoy their recreational activities. Dredged material is deployed beneficially, with sediment used to restore eroded reed swamp, construct lakeside bank protection, and regularly top up bank restoration and island areas, as well as being spread to local arable land. Regular monitoring continues to build scientific understanding of the Broad and its management. Partnership research is continuing in order to gain an understanding of the ecological dynamics of Prymnesium and to run trials to reduce nutrient and salinity inputs from the catchment.

In Lake Enhancements

Appendix i lists a review of potential benefits for a sediment removal programme and its relevance to Hickling Broad, and reviews the benefits in the context of the Authority's statutory purposes.

To develop these proposals the Authority consulted the Upper Thurne Working Group at a workshop event on 9 June 2015, where the context of the Lake Review and current baseline data were presented. This Group includes representatives of key stakeholders, including statutory bodies (EA/NE/IDB), user groups (sailing/angling/windsurfing), RSPB, local parish council and business interests, landowners (NWT/NT/Mills Estate).

With the objective of seeking to develop a multiple benefit project that will deliver a range of enhancements in the short to medium term for Hickling Broad, the workshop considered opportunities and possible risks. A high level of consensus was achieved over the following projects:

- **Dredging of the navigation channel** – here the priority is the necessary dredging at the north end of the channel to maintain essential access to the staithe, businesses and facilities in the area. It was also agreed that the channel could be used as a silt trap to draw mobile sediment from the surrounding areas, and the effectiveness of this as a technique should be monitored.
- **Bank restoration works** – benefits were recognised to restore eroded banks around the perimeter of the broad, to reduce erosion and sediment input, to

create new edge habitat and to increase shoreline complexity helping biodiversity.

- **Creation of refuge areas** – the creation of refuges was noted to be of benefit to allow water plants to recolonise in the sheltered areas, improve habitat and to provide refuges for fish as well as for birds. Specific areas suggested included Churchill's Bay and to extend Pleasure Island. Additionally, a further suggestion was to trial the installation of a groyne or spit construction to act as a barrier to reduce the fetch and allow natural accretion of sediment to form an island feature.
- **Beneficial reuse of sediment** – it was agreed that material arising from dredging activities should be used beneficially where possible, either in the construction of bank restoration or for island features, or by land spreading to local agricultural land.
- **Research needs** – there is a need to carry out initial research as part of the feasibility phase, to include investigations into fish populations and usage and to confirm the presence of any spawning/ nursery areas in the proposed footprint of the dredging/ construction works. Cooperation with current and future Prymnesium research will also be required throughout the life of the project to include the sharing of all water quality data and field trials of a mobile toxicity test. Subject to the views of stakeholders it may also be appropriate to undertake small scale trials of sediment removal to determine any benefit to propagule germination or bio-manipulation in exclosure areas.

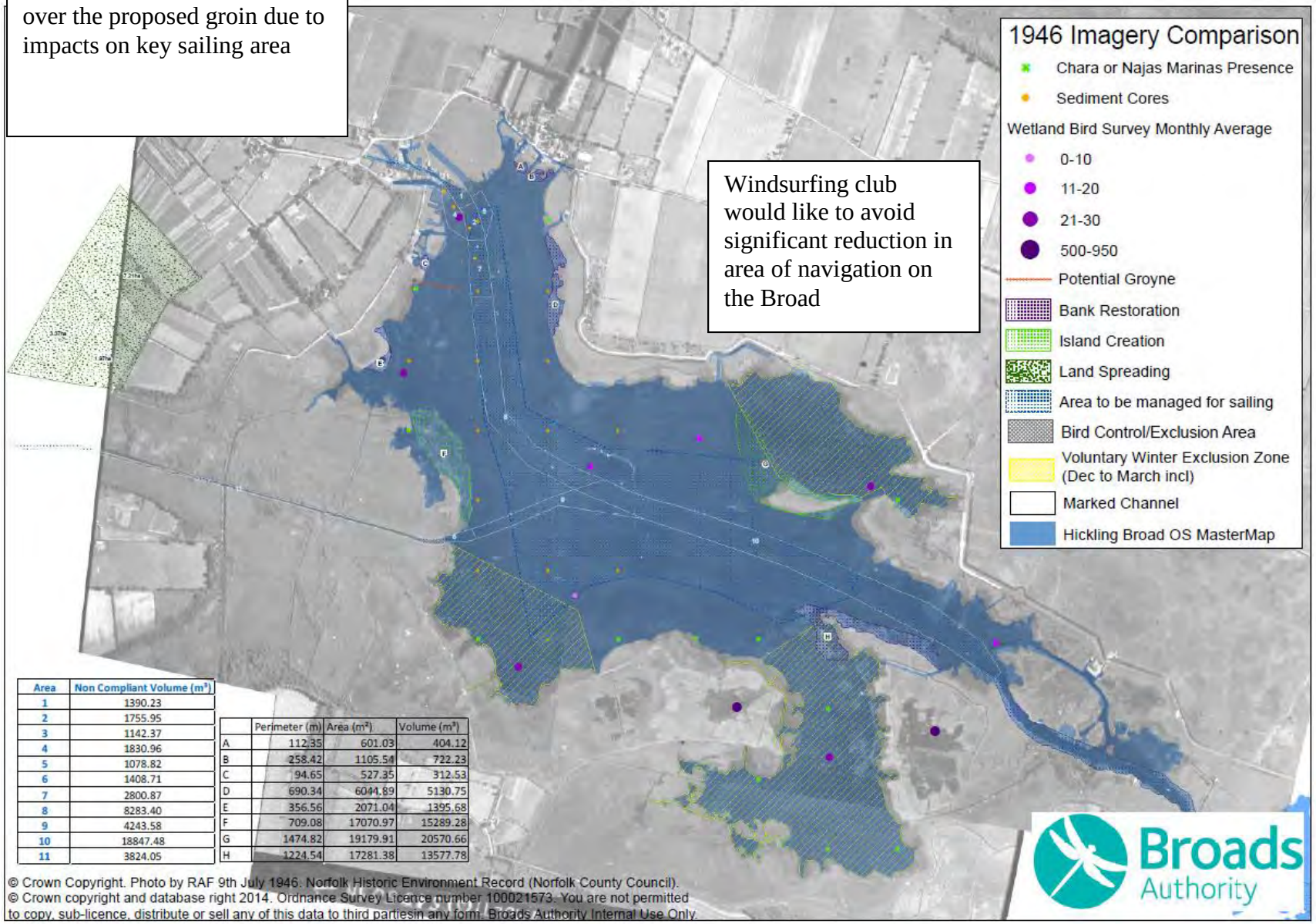
The following principles were also agreed;

- Works should be carried out in accordance with the agreed strategic vision, with strategic consents/ licences gained where possible to reduce the risk of individual project elements being refused/delayed throughout the project period
- Experimental works should proceed only following successful small scale trials
- A phased approach to the delivery of the vision should be adopted
- Robust and thorough monitoring will be required to collect data on the impacts and successes of the project delivery and inform subsequent phases
- In lake reconstruction works should largely follow the historic 1946 lines
- Precautionary approaches should be adopted – including agreed mitigation measures/ timings etc. so that there is no avoidable delay due to lack of full scientific certainty. Hence the purpose of well-monitored and phased research pilots leading to full scale experiments.

The delivery of each of these project areas will result in improved conditions for the environment, for navigation and for recreation. Local socio- economic benefits from the works will also be generated, as well as improved understanding of the ecological functioning of the lakes.

Figure 1 shows the proposal in a visual layout, and identifies the environmentally sensitive features of the site.

Windsurfing and Sailing club have responded to the consultation with concerns over the proposed groin due to impacts on key sailing area



Area	Non Compliant Volume (m³)
1	1390.23
2	1755.95
3	1142.37
4	1830.96
5	1078.82
6	1408.71
7	2800.87
8	8283.40
9	4243.58
10	18847.48
11	3824.05

	Perimeter (m)	Area (m²)	Volume (m³)
A	112.35	601.03	404.12
B	258.42	1105.54	722.23
C	94.65	527.35	312.53
D	690.34	6044.89	5130.75
E	356.56	2071.04	1395.68
F	709.08	17070.97	15289.28
G	1474.82	19179.91	20570.66
H	1224.54	17281.38	13577.78

Fig 1

Estimated Costs for the various elements within Hickling Broad

Section (see Fig 1)	Potential Solution	Approx. Installation Cost per M	Total Approx. cost inc. plant/labour	Length / Area	Approx. Construction Timings	Comments
A + B Hill Common Erosion Protection	Nicospan geotextile with timber poles	£30	£11,123.10	370.77m 1,706.57m2	3 weeks	Installation of fabric surround, installing goose guard and planting. Back filling with dredge material would be a separate operation.
C + D	Nicospan geotextile with timber poles	£30	£23,549.70	784.99m 6,572.24m2	6 weeks	Installation of fabric surround, installing goose guard and planting. Back filling with dredge material would be a separate operation
E	Nicospan geotextile with timber poles	£30	£10,966.80	356.56m 2071.04m2	3 weeks	Installation of fabric surround, installing goose guard and planting. Back filling with dredge material would be a separate operation
F	Bagger-Buffer (geo-textile mini tube)	£40	£28,363.20	709.08m 17070.97m2	8 weeks	Untried within the Broads although the Dutch have used this with great success.
G(a)	Gabion Baskets as per Duck Island	£60	£88,489.20	1474.82m 19179.91m2	20 weeks	Using the same techniques as we employed at Duck Island. The ‘croissant’ could be built up in cells to give strength and allow for areas to be filled and planted.
G(b)	Geotube as per Salhouse project	£385	£567,490.00	1474.82m 19179.91m2	40 weeks	Using the same techniques as we employed at Salhouse Broad. The ‘croissant’ could be built up in phases and filled to a higher level over a number of years
H	Nicospan geotextile with timber poles	£30	£36,736.20	1224.54m 17281.38m2	10 weeks	Installation of fabric surround, installing goose guard and planting. Back filling with dredge material would be a separate operation.

Mud-pumping	To dredge channel and back filling of constructed areas/ land spreading	£20 per m3	£800,000.00	40,000m3 in channel, noted volumes may increase subject to levels of mobilisation in the Broad	60 weeks	Mud-pumping could be used for the soft, silty mud mainly found in the main navigation channel. Duration depends upon weather conditions and distant to pump, but estimated based on previous outputs achieved. Annual surveying required to monitor slumping/ mobilisation and repeat dredging requirements.
Grab Dredging	Dredge into barges and offloaded into constructed areas	£20 per m3	£140,000	7,000m3 in Channel	12 weeks	Grab dredging will be needed to remove the harder, consolidated sediments; these are generally located around the Pleasure Beach & sailing Club area.

Feasibility work in autumn 2015 is being carried out to determine ground conditions and appropriate engineering designs to inform the proposed priority phasing. This may include trial stages for differing techniques/materials/designs, as well as indicating the anticipated timescale for delivery. Examples of previous techniques used in the Broads are included in Appendix ii.

If the proposal are endorsed it is proposed that each element would be delivered individually and would therefore be subject to separate funding arrangements unless significant external funding can be won. Individual planning consents will also be required. These will include detailed design and methodology based on full consultation. It is anticipated that each element will be delivered as part of a phased approach to delivering the whole vision and to ensuring multiple benefits. An initial 'trial' to demonstrate that any innovative design will work successfully will be assessed before larger scale activity / works take place on a phased basis.

A robust evaluation and monitoring strategy has been developed to identify the parameters that will be evaluated and the schedule of data collection. The analysis of the data will help to inform both the design of each element as well as understanding the impact of the works during and after construction.

The Broads Authority's consultative committees (Broads Forum and Navigation Committee) have been involved to help shape the vision and broad support has been expressed to date. The views of the Planning Committee will also be sought on the master plan prior to seeking the endorsement of the Broads Authority.

Potential impacts

Key considerations for the proposal are likely to relate to hydrology, landscape impact, ecology and habitat considerations, and the impacts on water space and navigation (including in relation to use of dredgings). An initial assessment against these aspects and the relevant policy framework has been completed below;

Broads Core Strategy DPD

Policy CS1 – Landscape protection and enhancement – the project will help to restore landscape features such as islands which have been lost to erosion as identified in the 1946 aerial photographs. Bank protection measures will safeguard the site from further erosion, and recreate lost reed bed and open water mosaic habitat.

Policy CS3 – Navigable water space – the project will allow the navigation channel to be dredged so as to secure access to the staithe, as well as to reduce the long term need for dredging by reducing sediment input from bank erosion. Navigation hazards such as island remnants which currently need to be marked as a hazard will be removed by being restored using dredged sediment. This will also remove the need for visually intrusive marking. Monitoring will determine the benefit to the wider open water of dredging the navigation channel and using it as a silt trap to draw in mobile sediment from the surrounding area. Innovative solutions such as groyne/ palisade

will be tested to measure their effectiveness as low cost, sustainable measures to help manage sediment. Successful schemes may be replicated elsewhere.

Policy CS4 – Creation of new resources. The proposed island restoration or creation would, as well as creating new reed bed, establish refuge areas where water plants, fish and birds would be able to flourish. This would be enhanced as a result of lower turbidity from reducing the fetch over the water which generates wind induced sediment disturbance, and also as a result of separation from boating activity. This should help to provide new areas for species, particularly those of conservation priority to extend their range in the Broad.

Policy CS15 – Use of dredging – the project has been designed to beneficially reuse sediment from the Broad. An assessment of engineering properties will be carried out. But it is proposed that very loose unconsolidated material will be pumped to adjacent, arable land for land spreading, or within lagooned areas, for bank reinstatement or island creation. Firmer material will be used directly within construction elements. This may also include the reuse of historic sediment from previous deposits on the lake banks. The design of the phasing will take account of the need to return to each area following consolidation of the dredged sediments, so that topping up can maximise the capacity in each area as well as ensuring that final levels are suitable for reed bed restoration.

Policy CS20 – Flood risk – as the new habitat features will be created at or below high water, and will be constructed from material dredged from the water body. There should be neutral impact on water levels, and hence no increased flood risk to adjacent communities. The developments are all located within the waterbody, so any future plans for flood risk mitigation measures would not be impaired.

Broads Development Management Policies DPD

Policy DP1 – Natural environment – the proposal will improve the mosaic of open water and reed bed and complexity to the lake edge which will result in greater number of niches for wetland species such as fish and quiet feeding area for bittern. Restoration of areas of reed bed will minimise further sediment input into the open water with added beneficial impact for the open water environment, as well as creating refuge areas for water birds and water plants by introducing shelter areas.

Policy DP13 – Bank protection – by including bank protection within the proposal on areas that have significantly eroded since 1946, further erosion will be arrested. This will help to protect the land and to benefit the water environment by removing a diffuse source of sediment input. Soft techniques will adopted such as geotextiles or gabions, in preference to adopting a piled edge, and vegetation will be established. Appropriate temporary navigation marks will be included until the vegetation is fully established to provide a clear visual indicator of the new edge.

Policy DP29 – Development on sites with a high probability of flooding – the features created will be designed in such a manner as regularly to inundate designed floodable areas, to ensure that the desired vegetation is supported and to prevent the growth of scrub. As the development will be at or below high water, and will be

constructed from material dredged from the water body, there should be a neutral impact on water levels and therefore no increased flood risk to adjacent areas.

This project is necessary to support the socio economic needs of the local community, by maintaining access to the village by boating visitors to the boatyard and local pubs, and also to ensure that the local recreation clubs such as sailing and windsurfing can continue to enjoy their activities. The Parish Council has recently invested in improvements to the staithe and slipway area. Numerous complaints have been received from local people about the current lack of maintenance dredging which is adversely affecting their activities.

Environmental report

An Environmental report has been prepared for submission to Natural England which details the proposed initial dredging and bank protection works, sets out the Habitats Risk Assessment screening and Appropriate Assessment and also includes the proposed detailed monitoring plan to be undertaken.

This is currently being reviewed by Natural England, and if agreed is intended to form the basis of a standard methodology, which can be replicated to each element and modified as required for the site specific conditions and design. It is intended that sharing the monitoring and mitigation plans with stakeholders and interested parties will help to provide reassurance that an appropriate precautionary approach is being adopted.

Consultation responses to date

The views of the Broads Forum have expressed that a ‘do nothing’ approach is not a viable option, given the poor environmental condition of the Broad, its failure to achieve either statutory targets or its potential, and the worsening position in respect of access and navigation through ongoing shallowing. Advice from the John Innes Institute has also indicated that the ‘do nothing’ option would also be inadvisable given the potential for boat disturbance of sediment to provide a contributory factor in prymnesium blooms, and that an increase in under keel clearance would be beneficial to prevent uncontrolled sediment disturbance.
Detailed comments have also been received in respect of the proposed groin structure, in respect of possible impacts on key sailing area as noted on Figure 1, as well as indicating a desire to minimise the loss of water space in the navigation area.

Following endorsement of the principles by the Broads Authority, further consultation is proposed with Hickling Broad Sailing Club, and a Parish Forum is proposed to be held in the area for members of the public and local residents.

Function	Comment	Benefit for dredging for			Other benefits
		conservation	navigation	promoting enjoyment	
Reduction of internal loading	Non-retentive sediment due to competitive binding of iron by sulphide. Therefore internal loading is naturally limited	Low	Low	Low	
Increased water depth	Hickling is shallow and turbid (unless dominated by plants). Deepening is unlikely to improve submerged light climate unless there is an accompanying equivalent reduction in turbidity. Current dominant species have rhizomes and independent of light regime but could be reduced unless dredging avoids existing beds.	Low	High	High	High benefit for tourism by improving access in navigation channel to local businesses and local community. Additional benefits also for angling, nature watching, tourism, landscape value by increased access through restoration of water depth in agreed areas and reduction of mechanical disturbance by boats in shallow water which has the potential to trigger prymnesium event through ongoing release of nutrient (unproven)
Bed stabilisation	Wind and boats stirring up the sediment is a source of turbidity. Increasing depth by removing fine sediment should increase clarity. Hickling sediment is, however, already comparatively cohesive and unlikely to limit water plants.	Mod	Low	Mod	Moderate benefit for angling, nature watching, tourism, landscape value by increased water clarity
Propagule bank exposure	Hickling historically dominated by water plants, some seeds may germinate after sediment removal.	Mod	Low	Mod	Moderate benefit for angling, nature watching, tourism, landscape value by increased water plants
Bank reclamation	Opportunity to reclaim and restore sections of eroded bank, especially in areas of reed dieback and goose grazing. Potential benefits to water plants through increased shoreline complexity and reduced wave reflection from steep eroded banks.	High	High	High	High benefit for navigation by lower bank erosion High potential benefit for angling dependant on location and design delivering improved fish habitat High benefit for nature watching, tourism and landscape value by increased reed edge High benefit for landowners to prevent loss of land/reed area
Contaminant removal	Opportunity to reduce the concentration of heavy metals (copper, tin).	Low	Low	Low	low benefit as tests indicate low levels of heavy metals
Creation of hydraulic refugia	Water plants are likely to colonise sheltered bays. Imaginative used of dredged material to create bunds or islands could significantly increase shelter and help water plants re-establish.	High	Mod	High	Navigation benefit dependant on location e.g. island over a navigation hazard may be high benefit. Islands obstructing sailing may be low benefit. Beneficial use of sediment in constructing refuges would be of high benefit to assist with navigation dredging High benefit for angling, nature watching, tourism by increased water plants, fish habitat and bird refuge areas Landscape benefit dependant on location and design

Examples of Previous Techniques used in the Broads **Appendix ii**

The Broads Authority have undertaken a variety of projects making use of dredged sediment on agricultural land or in projects to protect or restore eroded reed beds and river banks. A few examples of recent projects are outlined below.

1. Land Spreading

Where an agronomist can show there will be agricultural benefit sediment can be spread onto agricultural land as a soil conditioner. When intending to spread sediment onto land it is common practice to remove the sediment from the waterbody with a suction dredger. A cutter suction dredger typically pumps a 85% water / 15% sediment mix which needs de-watering before spreading. Settlement lagoons are an established method of de-watering and have been used many times on the Broads and a few examples are given below. Another method is to pump the sediment mix into geotextile bags which under pressure and over time allow water to drain and sediment to consolidate.

Example 1: Barton Broad

Between 1996 and 2001 sediment was dredged from Barton Broad de-watered and spread on adjacent agricultural land.

Sediment	Volume	Dredging technique	Dewatering technique	Cost
Soft organic silt	305,000m3	Cutter suction dredger	Settlement lagoons	£10/m3

Photo 1: Barton Broad settlement lagoons

Example 2: Ormesby Broad

In 2010 sediment removed from Ormesby Broad was pumped into dewatering lagoons and later spread on agricultural land on the same site.

Sediment	Volume	Dredging technique	Dewatering technique	Cost
Soft organic silt	15,000m3	Small suction dredger	Settlement lagoons	£8/m3

Example 3: Upton Little Broad

In 2011 highly organic silt was removed from an isolated broad and pumped into geotextile bags and later spread onto agricultural land, with the geotextile recycled in erosion protection works.

Sediment	Volume	Dredging technique	Dewatering technique	Cost
Highly organic silt and algal matter	4500m3	Small suction dredger	Non-woven geotextile bags	£20/m 3

Photo 2: Geotextile bags starting to be filled at Upton

Example 4: River Bure, Coltishall Lock Channel

In 2015 soft sediment overlying a hard sand and gravel bed was removed and pumped into settlement lagoons on adjacent agricultural land. Given the granular nature of the sub soil the sediment dewatered rapidly and is awaiting spreading.

Sediment	Volume	Dredging technique	Dewatering technique	Cost
Soft organic sandy silt	2000m3	Small suction dredger	Settlement lagoons	£15/m3

Photo 3: Constructing settlement lagoons near Coltishall

2. In-line Erosion Protection

Where bank erosion is an issue structures can be installed to protect the bank and retain sediment backfill. Recently timber post and geotextile structures have been trialled in the Broads to restore and protect the original bank line and make use of sediment backfill. An example is given below.

Example 5: River Ant, Hall Fen

Principally an erosion protection project involving a simple geotextile retaining structure in front of an eroding bank. Due to the layout the capacity for sediment backfill was very limited however the structure proved a backfill depth of at least 0.6m could be successfully retained.

Sediment	Volume	Dredging technique	Retaining structure	Cost
Soft silt	100m3	360 excavator	Nicospan with anchored timber posts	£65/m3 (for 24m length)

Photo 4: Nicospan erosion protection structure planted with bur-reed.

3. Reed Swamp Reclamation

In some locations sediment can be beneficially used to reclaim areas of eroded or degraded reed swamp. In such areas forming a stable retaining structure on very soft ground can be difficult. Geotextile tubes and gabion baskets have recently been used as effective retaining structures as outlined below.

Example 6: Heigham Sound

In 2012 soft silts were dredged from Heigham Sound and pumped approximately 1800m to a former soke dyke on marshland. The landowner wanted to create a reedbed and the soke dyke effectively formed a ready-made settlement lagoon. This is a refinement of traditional bankside disposal.

Sediment	Volume	Dredging technique	Retaining structure	Cost
Soft organic silt	10,000m3	Cutter suction dredger	Soke dyke as ready-made lagoon	£9/m3

Photo 5: sediment pumped from Heigham Sound filling former soke dyke.

Example 7: Duck Broad

A bespoke gabion structure has been the solution to reform the perimeter of an eroded reed bed and retain dredged sediment. The steel cage baskets are linked together to form a mass gravity structure stable on the very soft bed material. The baskets were planted with reed and then sediment pumped into the internal lagoon area to recreate the reed bed land mass.

Sediment	Volume	Dredging technique	Retaining structure	Cost
Soft organic silt	14,000m3	Cutter suction dredger	Bespoke gabions with geotextile liner and filled with dredged material	£25/m 3

Photo 6: Duck Broad Island recreation using gabion baskets

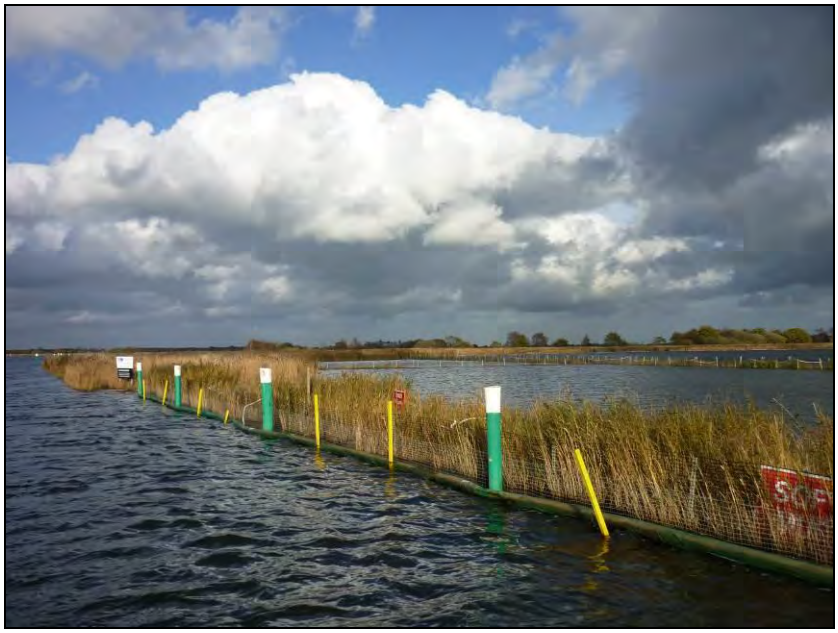


Photo 7: View of the perimeter baskets from the water with reed beginning to establish.

Example 8: Salhouse Broad

In 2012 sediment dredged from the River Bure was used to recreate an eroded reed swamp on the edge of Salhouse Broad. To form the reed swamp edge and retain the backfill an 8.5m diameter geotextile tube was used and pumped full of sediment in-situ using a concrete pump. The concrete pump was used as it could pump a much denser mix of sediment than a dredging pump which was necessary to form a stable mass retaining structure in the tube.

Sediment	Volume	Dredging technique	Retaining structure	Cost
Soft silt	12,000m3	360 excavator and piston concrete pump	Geotextile tube filled with sediment	£21/m3

Photo 8: Newly restored reed swamp area retained by geotextile tube at Salhouse Broad.

Photo 9: View of the restored reed swamp from the water.

Prymnesium and how the risk is mitigated against whilst carrying out works within the Hickling area.

- BA is not responsible for the fisheries aspect of the Broads –the EA has statutory responsibility for fisheries and is in receipt of rod licence income
- Prymnesium is a naturally occurring algae, it is found year round in the Upper Thurne. Prymnesium is only found in 'brackish' waters, it cannot survive in a Freshwater environment.

Broads Authority Prymnesium Measures

- Pre work monitoring starts 6 months before planned works – we monitor Prymnesium cells counts, water temperature, conductivity (saline values), nutrient levels, water level & rain fall.
- We work to minimise 'suspended sediments' by using silt curtains, moon pools and mud-pumping (to remove sediments) where appropriate.
- We work when water temperatures are 8 degrees and less. This means working between Nov- Feb when weather conditions on Hickling are at their worst.
- We continually monitor - Prymnesium cells counts, water temperature, conductivity (saline values), nutrient levels, water level & rain fall as we work.
- We set ourselves robust 'Thresholds' and developed a risk matrix and decision tree to ensure consistency is maintained with regards to the Environmental Operating standards.
- We have carried out extensive research in 'Prymnesium Cysts', alleged to be present in the sediments within Hickling (it has been alleged that these cysts are stirred up with the sediment aiding the growth of Prymnesium) and can find no evidence of such cysts.
- No scientific data or research has definitively linked a Prymnesium bloom to dredging.
- BA has invested thousands of pounds in research, sampling & testing to ensure we work following the latest environmental best practise.

Boat Insurance Audit

Report by Head of Safety Management

Summary: This report sets out the results from a recent audit of a sample of private boat owner's third party insurance compliance.

The committee's views are sought on the results of the survey and the options as set out in Section 5.2.

1 Introduction

1.1 In 2010 the Broads Authority, after consultation with the Navigation Committee, set requirements for boat owners to hold compulsory third party liability insurance in place to a value of £2,000,000.

1.2 This requirement is applicable to all vessels on the navigation and adjacent waters although the following exemptions were agreed.

- Any unpowered vessels in the navigation or adjacent waters which are less than 6 sq. meters in block area
- Any unpowered visiting vessel in the navigation area or adjacent waters 4m or less in length

1.3 To satisfy this provision the Authority requires boat owners to make a declaration that they have the relevant insurance in place when paying their toll, be it an annual or short visit toll.

1.4 Following a small number of incidents where parties were found not to be insured an exercise has been carried out to validate the effectiveness of the self-declaration process by selecting a number of boat owners and requesting their insurance details to validate whether the correct insurance was in place at the time of declaration.

2 Sample Selection

2.1 A sample size of 100 was selected for the audit, this represents 1.2% of the total number of boats tolled that required insurance.

2.2 Hire and small passenger boats were excluded from the sample as their insurance provision is checked during routine audits. The tolls database was used to select private vessels that required insurance and had been issued with a current toll. A random number was allocated to each entry, the data sorted into order and the first 100 records selected for the survey.

2.3 The sample selected delivered a range of vessels including:

- 13 Auxiliary Yachts
- 4 Day boats
- 70 Motor boats
- 5 Outboard powered dinghies
- 1 Work platform
- 7 Sailing boats

3 Process

3.1 Boat owners were written to requesting a copy of their insurance covering the period when they made their declaration that insurance was in place.

3.2 Returns were assessed on three criteria:

- was insurance in place at the time of the declaration
- was the level of cover as prescribed by the Authority
- was the insurance in accordance with the provisions of the 2009 Act

4 Results

4.1 Following a number of letters and other communications the following data has emerged:

- 100% response, all boat owners surveyed have been engaged with
- 87 boat owners had policies that were fully compliant
- 5 boat owners confirmed they did not have insurance in place at the time of declaration, but have insurance in place now
- 6 boat owners have stated that they have insurance but are still to present documents for validation (ongoing enquiry)
- 2 policies supplied had no specific mention of third party cover (ongoing enquiry)
- All policies presented complied with the requirements of the 2009 Act
- Of the 87 policies presented all had either the minimum or more cover required by the Authority.

5 Next Steps

5.1 The Authority has powers under the provisions of the Broads Authority Act 2009 to formally request information relating to insurance from boat owners.

5.2 The survey has only tested a sample of boat owners who have paid a toll for their boat. The status of insurance for boat owners that have not been through the tolls process is unknown and may likely deliver a different result.

5.2 Following the initial audit there are a number of options available:

- do nothing further
- re-run the survey annually to inform further policy development

- re-run the survey with a larger sample to inform policy development
- Take a risk based approach and request insurance information following the issue of written warnings and /or notice of contraventions for no payment of tolls
- Require insurance policies to be presented on application for tolls

Members views are sought.

Background papers:	None
Author:	Steve Birtles
Date of report:	12 August 2015
Broads Plan Objectives:	None
Appendices:	None

St Olaves Marina, Beccles Road, St Olaves:
Demasting Moorings
Report by Head of Planning

Summary: In 2001 a Section 106 Legal Agreement requiring the provision of demasting moorings was signed by the owners of St Olaves Marina, however the moorings were never provided. The views of the Navigation Committee are sought on how to progress this matter.

1 Background

1.1 St Olaves Marina is a large marina situated at the confluence of the River Waveney and the Haddiscoe New Cut, immediately adjacent to the substantial modern road bridge which takes the A143 over the Haddiscoe New Cut. The bridge has a height of just over 7m above mean high water and is a very prominent feature in the landscape. The marina comprises two basins extending to approximately 1.8ha, a boat sales area, boat hoist, washroom building, reception and office building and extensive areas of hardstanding for car parking, boat storage and marine maintenance activities. In total the site covers an area of approximately 5ha and accommodates around 150 boats in the water. There are currently no moorings along the River Waveney or New Cut frontage of the site.

1.2 There has been a marina on this site for many years, and this underwent a period of expansion in the mid 1990's. In 1996 planning permission was granted for the change of use of the adjacent land to incorporate it into the marina (1996/0953) and in 1997 permission was granted to replace ten holiday chalets and convert two existing buildings to holiday units (1997/0242). In 2001 planning permission was granted for an extension to the mooring basin, the creation of a new access onto the New Cut (and closure of the existing access), the erection of a new building to provide an office/showroom/manager's flat and other associated works on the site (1997/0241).

1.3 This planning permission was subject to a S106 Agreement dated 3 October 2001 which had the following requirements:

i. The number of private moorings in the new basin must not exceed 80 at any one time; and

ii. The managers flat shall only occupied or let to a person who is employed in connection with the marina or yacht sales and shall not be separately sold; and

iii. The land must not be used for the mooring of hire craft.

In addition, the S106 required that the development permitted (ie the extension to the mooring basin, the creation of a new access etc) would not be used unless the developers:

"… have provided on Haddiscoe New Cut two mooring spaces east and two mooring spaces west of the A143 road overbridge to enable unpowered yachts to raise and lower their masts. Such mooring spaces to be in the approximate positions shown coloured orange on the attached plan but the exact position and specification shall require the written approval of the Authority."

2 The Recent Planning History

2.1 In 2014 a planning application was submitted for the construction of a pontoon along the River Waveney frontage, plus three fishing platforms. The application was revised a number of times, but ultimately refused planning permission in January 2015 on the grounds of the impact on the local landscape and navigation (BA/2014/0205/FUL). The application attracted a substantial amount of objection and a number of the objectors made the point that there were existing planning breaches at the marina site and that the applicant had not complied with the terms of the previous S106 Agreement. These are not issues which are material to the consideration of the planning application, however, they are planning matters and were therefore investigated.

2.2 The investigation found there were, indeed, a number of planning breaches on the site. These included substantial land raising, flood walls having been reconstructed to provide raised access ways, the erection of a boat hoist and failure to comply with the landscaping condition. An application was subsequently submitted (and approved in June 2015) for the retention of the boat hoist (BA/2015/0098/FUL); the other matters are under discussion. The investigations also found that the de-masting moorings required under the 2001 S106 Agreement had not been provided.

3 The Current Position with regard to the Demasting Moorings

3.1 The site where the demasting moorings were to have been provided, either side of Haddiscoe road bridge, has been inspected. The on-site position is as follows:

a. Upstream (Reedham) side: Piling has been installed by BESL, however, there are large voids to the rear of these. Good quality mooring cleats have been provided, but the facility is unsuitable for de-masting or any other form of mooring.

b. Downstream (Somerleyton) side: Piling has been installed by BESL, however there are large voids to the rear of these. The facility is unsuitable for de-masting or any other form of mooring.

It is clear that the moorings have not been provided and considerable work would be required to provide de-masting moorings here.

3.2 A number of discussions have taken place with the landowners and their representative regarding these moorings. They maintain that a meeting was held with the Broads Authority in July 2001 at which it was agreed that the Broads Authority would maintain the moorings and pay a small mooring fee to St Olaves Marina. They have provided a copy of a letter from them to the Authority's solicitor at the time, which refers to this, stating:

"We are allowing two spaces (four in total), both sides of the bridge for the de-masting for yachts. It was discussed with Mark Wakelin of the Broads Authority that these would be maintained by them and a small mooring fee would be paid to us. If the Authority is willing to pay our commercial mooring fee, we will be happy to maintain these areas at our cost …."

3.3 The Broads Authority has not found any record of such a meeting, nor any documents pertaining to it. Of course, this does not mean the meeting did not take place, but it does cast some doubt on the landowner's recollection of what was agreed as it is unlikely that an agreement of this nature would not be committed to paper, not least because of the 'small mooring fee' that was to be paid. It is also somewhat implausible that having reached such an agreement in July 2001, the landowners would then sign a S106 Agreement in October 2001 which made them wholly responsible for the moorings and made no reference whatsoever to the maintenance and payment arrangements which had, allegedly, been agreed.

4 Next Steps

4.1 Were the de-masting moorings to be provided as envisaged in the S106 Agreement, the following works would need to be undertaken:

a. Upstream (Reedham) side: infill voids to rear of piling, install decking alongside capping, install safety chains and ladders with hand rails and erect signage.

b. Downstream (Somerleyton) side: infill voids to rear of piling, level the banks for minimum of 1.8m width, install decking alongside capping, erect mooring posts, install safety chains and ladders with hand rails, erect signage, remove or reposition a security fence and dredge an area alongside the moorings currently marked with buoys as very shallow.

4.2 It is clear from the above that the costs to commission these moorings would be considerable.

4.3 If it is accepted that there is no evidence to demonstrate that the requirements of the S106 Agreement were waived or otherwise amended, it is the case that the requirements remain in force. The Authority can enforce these

requirements, as a S106 is a legally binding contract into which a landowner has entered. Enforcement is a legal process and it can be time consuming and expensive. Given the time that has passed since the S106 Agreement was signed, were the Authority to pursue this matter in this way, the Court is likely to ask for an explanation of why it is now pursuing this matter and a justification for this will need to be provided.

4.4 Alternatively, there may be merit in further discussions with the landowner over provision of de-masting moorings either through a partnership approach, although there is no current budget provision for works of this type or elsewhere where the commissioning costs are lower. Members will be aware that a strategic review of de-masting moorings is underway and it may be premature to commit to anything here in advance of the conclusion to that process.

5 Conclusions

5.1 The provision of de-masting moorings on all four quadrants of all bridges is a navigation policy. It is regrettable that the S106 Agreement here, which would have met the objectives of this policy, was not pursued earlier. It may still be enforceable.

5.2 The views of the Navigation Committee on how they wish to pursue this are sought.

Background papers:	None
Author:	Cally Smith
Date of report:	20 August 2015
Broads Plan Objectives:	None
Appendices:	None

Navigation Committee
3 September 2015
Agenda Item No 10

Mutford Lock Maintenance and Reserve
Report by Rivers Engineer

Summary: This report sets out the current maintenance issues at Mutford Lock and recommends revised budget allocation and use of reserves to undertake essential maintenance and keep it serviceable both in the short and long term. Members views are specifically sought on the following:

1. Members' support is sought for expenditure of approximately £56,000 from the Mutford Lock reserve fund to undertake essential maintenance and repairs in the current financial year (2015/16).

2. Members are asked to note the proposed revised annual maintenance budget requirement for Mutford Lock of £18,000, an increase of £6,000 p.a., to allow for hydraulic control system servicing and routine underwater maintenance, which will be incorporated in the draft 2016/17 budget for consultation.

3. Members support the proposed appointment of a consultant in 2016/17 to investigate costed de-watering options for the lock, ahead of future major work. The cost is estimated to be between £5,000 and £10,000 for which authorisation for further expenditure from the reserve fund will be sought from Broads Authority in September.

4. Members are also asked to note that the operating contract is due for renewal and the costs might rise (see para 4.6).

1 Background

1.1 Mutford Lock is a bi-directional lock with four pairs of mitre gates operated by a hydraulic system. The lock is heavily used during the summer months with typically around 800 vessel passages each year. The lock provides an important connection between the North Sea and the Broads, and is a popular alternative to navigating through the Port of Great Yarmouth.

1.2 Most locks (e.g. a typical canal lock) have a constant and significant head of water across the lock. The water pressure helps push and seal the gates when closed and helps with the movement and sluicing of silt and debris. Mutford Lock however experiences water level variation on both sides with a tidal cycle on Oulton Broad differing from the tidal cycle on Lake Lothing. The difference in water level across the lock is at times very small and therefore

good maintenance and operation is essential to ensure the lock gates work and seal effectively when the benefit of a good head of water is not available.

1.3 In the last two years there has been a requirement for significant expenditure on Mutford Lock from reserves. Recent expenditure has been reactive rather than proactive; in part due to exceptional climatic events (large tidal surge in December 2013), but also in part due to previous low maintenance investment. Recent expenditure has included the replacement of the hydraulic control system (most of which was reimbursed by a government flood damage grant) and the removal and repair of a lock gate. This work has been previously reported to Navigation Committee most recently in June 2015.

1.4 Mutford Lock has a dedicated reserve account from which such expenditure has been made. Annual contributions of £25,000 have been made to provide a fund for major work likely in the future, and an additional £2,000 is added into the fund each year from rental income.

2 Current Budget

2.1 The total annual budget for Mutford Lock is £37,000. In recent years this sum has been divided between contribution to reserves and operation and maintenance costs. The table below shows the typical budget allocation.

Item	Service Provider/Supplier	Budget Cost £
Contribution to reserves		25,000.00
Operation agreement	Sentinel Leisure Trust	6,956.82
Maintenance agreement	Waveney Norse	663.88
Available for routine annual maintenance and repair costs	Non specified but typically includes paint, grease, hydraulic maintenance, debris removal etc.	4,379.30
	Total	**37,000.00**

2.2 After the contribution to reserves £12,000 is available for annual expenditure. Operation of the lock provided by Sentinel Leisure Trust and routine mechanical inspections and greasing provided by Waveney Norse account for most of this sum leaving £4,379 available for routine repair and maintenance costs.

2.3 The available budget for repair and maintenance has been spent each year on a number of minor items, such as paint, signage, gear repairs etc. as well as the use of divers to deal with obstructions. The available budget has however not been sufficient to cover a number of other repairs or maintenance issues which are now essential (see Section 3).

3 Immediate Works Requirements

3.1 Recent survey and inspection work at the lock has highlighted a need for a range of non-routine maintenance tasks to be completed in the short term.

These requirements are listed in the following table with associated costs. A more detailed description and breakdown of the costs is included in Appendix 1.

Item	Value £
Penstock repairs Replace two penstock sluices	3,817.12
Hydraulic control adjustments Modify gate hydraulics to allow control of operating speed.	5,981.00
Spare parts Purchase spares for hydraulic and electrical for the gate control system	1,265.00
Debris removal Removal of silt and debris still remnant from surge	6,400.00
Gate re-balancing Install buoyancy tanks to balance gates	15,200.00
Gate mechanism repairs Replace grease pipes, rollers, racks, covers etc.	8,200.00
Paving repairs Breakout and replace settled concrete paving	3,000.00
Gauge boards Install new large gauge boards on both sides of lock	2,000.00
Total	**55,863.12**

3.2 It is proposed that the cost of the maintenance work outlined in the above table be met by expenditure from the lock reserve account. Much of this work is best undertaken in the quieter winter months (with the exception of the penstock replacement which is becoming urgent). To ensure the lock is in good serviceable order before the next summer season, it is recommended that all these items are completed before April 2016, and the Broads Authority will be asked to approve this expenditure at its meeting in September. Therefore the support of the Navigation Committee is sought.

4 Revised Annual Budget requirement

4.1 The following table shows the items which the annual budget is required to cover to proactively maintain the lock in serviceable condition.

Item	Value £
Lock operation	6,957.00
Mechanical maintenance	2,000.00
Hydraulic and electrical maintenance	1,935.00
Debris & Mussel removal and annual check	5,000.00
Maintenance consumables & minor repairs	2,108.00

Total	**18,000.00**

4.2 This proposed budget allows for the existing operation and an improved level of mechanic maintenance, as well as provision for typical minor repairs and maintenance items. In addition to this it is proposed that an allowance is specifically made for the maintenance and annual servicing of the hydraulic control system and use of divers for underwater checks and maintenance.

4.3 The improved mechanical maintenance contract is suggested as current maintenance is not to the good level originally provided by Waveney District Council and this is reflected in the current low contract cost. The proposed cost in 4.1 is based on initial quotes from the current service provider and other potential providers.

4.4 The hydraulic control system is relatively new and like all electromechanical systems has items (e.g. filters, seals, heaters, fuses, pipes motors etc.) that need regular maintenance and servicing. The cost shown above is based on a quote from the system supplier who would provide monthly checks, an annual service and priority repair call out of the system.

4.5 With much of the lock structure and parts below water divers are regularly required to undertake maintenance. The use of divers has to date been purely on a reactive basis as problems have presented. The lock gates are vulnerable to disruption from excessive debris, silt and mussel built up. The cost shown in the table above would allow for three to four days with a dive team based on a typical day rate of £1,500 to £2,000. Rather than reactive work it is suggested that a proactive approach be taken with divers undertaking pre and post season underwater checks of the gates walls and cills and with removal of mussels and debris before problems occur.

4.6 Members should note that as previously reported Sentinel Leisure Trust who currently operate the lock on behalf of the Authority has requested a significant increase in the cost of operation from £6,957 to £20,000. This report focuses on the maintenance requirements of the lock and the associated costs which are necessary to keep it serviceable. The cost of the operating contract is being reviewed and will be reported separately with future consideration given to budgeting for any additional cost.

5 Reserve Account and Long Term Requirements

5.1 Mutford Lock has a dedicated reserve account. The reserve account as at the end of June 2015 stood at £295,750. Since taking over management of the Lock it has been the aim of the Authority as set out in the Asset Management Strategy to build this reserve account to a total of approximately £500,000.

5.2 With the maintenance expenditure of approximately £56,000 outlined in Section 3 and the annual contribution to reserves of £27,000 allocated, the net effect on the reserves budget this year will be a reduction of £29,000. Therefore by the end of the financial year the reserve account will stand at approximately £266,750.

5.3 The proposed annual budget outlined in Section 4 requires an annual maintenance expenditure of £18,000. It is proposed that the contribution to reserves should remain at £27,000; therefore requiring 9 further years to reach a reserve balance of £500,000.

5.4 The main reason for building up this dedicated reserve is to provide funds in the future for major structural repair work to the lock chamber, the stability of the masonry walls is an ongoing concern, but other elements include the steel piling both within the chamber and to the Broad frontage.

5.5 The actual cost of such major work to the masonry walls will be significantly influenced by the condition of the lock walls at the time of repair and the method of dewatering for works access. The key areas of concern are the remaining old masonry parts of the walls adjacent to the gates. Failure of these parts of the structure could compromise the gates and quoins leading to very high repair costs and the requirement for cofferdams to isolate and dewater the area.

5.6 Taking a proactive approach to investigating likely repairs and undertaking maintenance work before failure could significantly reduce the cost. It may be that lower cost alternatives to cofferdams for dewatering are feasible and that pre-emptive work can avoid some major aspects of work such as re-building quoins.

5.7 It is therefore suggested that past structural reports are revisited and further work is undertaken by a consultant in 2016/17 to provide costed options for de-watering. The consultant fees are likely to be between £5,000 and £10,000. It is however work that will need to be undertaken at some stage, and if undertaken now will provide an improved basis on which to manage the future budget and reserve fund. Members support is requested for this approach, and authorisation for the expenditure from the reserve account will be sought as part of the 2016/17 budget setting.

5.8 A survey will also be undertaken in 2016/17 of other land holdings around Mutford Lock which are subject to the Harbour Revision Order. This will include structural surveys of the piling and timber structures along the Oulton Broad frontage. The condition, remaining life and costed options for maintenance or replacement will be included in a subsequent report to the Navigation Committee.

Background papers:	None
Author:	Tom Hunter
Date of report:	4 August 2015
Broads Plan Objectives:	None
Appendices:	Appendix 1 – Immediate Maintenance Requirements

APPENDIX 1 – Immediate Maintenance Requirements

Item	Value
Penstock sluices *The penstocks are paddle valves which control water flow in and out of the lock chamber. Two penstocks were found to be badly damaged and in need of replacement.*	
Remove banks and install new penstocks	£ 7,200.00
Supply new penstocks (x2)	£ 4,817.12
Replace penstock anodes	£ 1,800.00
Hydraulic control changes *The hydraulic control system is an effective tool to work the gates; however unlike a manual system it can force the gates over obstructions without the operator aware. This appeared to have happened with the recent gate issues, therefore it is suggested that the operating loads are monitored and modifications made to reduce the speed and give the operator more sensitive control and avoid damage.*	
Data log and report on hydraulic load for each gate operation	£ 1,995.00
Install flow control valve to allow gate speed to be adjusted	£ 3,986.00
Control System Spares *It is recommended that some spare parts are held for the hydraulic control system. Keeping these spares would potentially reduce down time in the event of a future breakdown.*	
Hydraulic spares pack	£ 1,060.00
Electrical spares pack	£ 205.00
Debris removal *Debris removal has not been a routine task and although some material has been removed from the gate areas there is a significant backlog of debris and silt especially since the surge in 2013. This debris can obstruct the gates and get caught in the quoins (where the gets meet the walls). Mussels have also built up on the gates adding significant additional weight.*	
Bulk removal with small dredging vessel	£ 2,800.00
Clear gates/fine removal	£ 3,600.00
Gate balancing *Lock gates need an accurate balance of weight distribution to allow correct alignment and sealing and prevent excessive pressure on bearings. Since the current gates were installed walkways and handrails have been added and mussels have been allowed to build up. Adding a buoyancy tank to each gate would redress the balance and minimise sealing and wear issues.*	
Buoyancy tanks - supply s/s tanks	£ 8,000.00
Install tanks	£ 7,200.00

Item		Value
Gate mechanism repairs *Some of the basic mechanical items are now many decades old and have degraded over time. For example, the capstan covers protect the gate winding gearing from the elements but these are now severely corroded and effectively held together by paint. Another example is the racks which push and pull the gates; numerous repairs have been made but two would now benefit from replacement before failure as there could be a significant fabrication time.*		
New grease pipes	£	500.00
New roller	£	200.00
Capstan covers	£	2,500.00
New rack (x2)	£	5,000.00
Paving repairs *Settlement of the concrete slab paving along the lock side now presents a trip hazard. Due to the nature of the lock working and operation the lock edge is not protected so it is important that the surrounding paving does not present a hazard. The breaking and recasting of the existing settled slabs will also provide an opportunity to see if there is any loss of material or significant settlement behind the lock walls.*		
Concrete paving repairs	£	3,000.00
Gauge boards *There is currently no precise indicator of water level on each side of the lock. New clear gauge boards at each end of the lock would provide this and allow the lock operator also to better advise craft on bridge clearances through Lake Lothing.*		
Gauge board supply and installation	£	2,000.00
Total	**£**	**55,863.12**

Navigation Committee
3 September 2015
Agenda Item No 11

Annual Income and Expenditure Report: 2014/15
Report by Head of Finance

Summary: This report sets out a summary of the Authority's income and expenditure for the 2014/15 financial year, analysed between National Park and navigation funds. Original and Latest Available Budget information is provided for comparison.

1 Introduction

1.1 The Broads Authority Act 2009 requires the Authority to prepare a report as soon as reasonably possible after the end of each financial year describing the navigation income received by it and the navigation expenditure incurred by it in that year.

2 Actual Income and Expenditure 2014/15

2.1 The table in Appendix 1 sets out the Authority's income and expenditure attributed to general (National Park Grant) and navigation funds for the financial year ended 31 March 2015. To the extent that they are included within the Authority's Statement of Accounts, these figures are subject to audit and formal approval by the Authority's external auditors. For comparative purposes, the Original and Latest Available Budget (LAB) figures are also shown. This information is published on the Authority's website.

2.2 The actual outturn for 2014/15 was a deficit of £1,982 for navigation compared with a budgeted LAB surplus for the year of £7,449. The original budget was for a surplus of £39,558. The final forecast outturn reported to the Committee was a surplus of £16,616 (Item 15, 23/05/2014).

2.3 Total core income for the year was £2,975,960, which was £5,911 below budget, principally due to adverse variances within the Hire Craft Tolls, offset by favourable variances in Private Craft Tolls and adverse Interest budget lines.

2.4 There has been some considerable success in bringing in additional, unbudgeted income during the year, and this has had an impact on the overall Directorate figures (additional income of £62,783 for Operations and £153,054 for Planning and Resources). Some expenditure has also been funded from the Authority's earmarked reserves, in particular in relation to Mutford lock repairs (£10,511), the second replacement wherry (£54,318) and PRISMA project expenditure (£74,305). The sale of the old patrol launches meant that the income increased the Plant Vessels and Equipment Reserve by £23,960. The underspend within Planning and Resources is in part due to salary

savings on unfilled posts which in turn created capacity issues, lower billing for both insurance and legal.

2.5 Total net navigation expenditure in 2014/15 was £2,977,942.

3 Summary

3.1 The total navigation deficit for 2014/15 was marginally higher than budgeted and higher than forecast. As a result the balance of the navigation reserve at the end of 2014/15 was £280,138. This is slightly, but not significantly, below the target balance of 10% of net expenditure. The impact of this 2014/15 outturn was taken into account in the Authority's consideration of carry-forward requests in conjunction with the 2015/16 budget which will to restore it to slightly above 10%.

Background Papers:	Nil
Author:	Emma Krelle
Date of Report:	7 August 2015
Broads Plan Objectives:	None
Appendices:	APPENDIX 1 – Navigation Actual Income and Expenditure 2014/15

The Broads Authority – General and Navigation Income and Expenditure 2014/15

The Broads Authority Act 2009 requires the Authority to prepare a report as soon as reasonably possible after the end of each financial year describing the navigation income received by it and the navigation expenditure incurred by it in that year. The table below sets out the Authority's income and expenditure attributed to general (National Park Grant) and navigation funds for the financial year ended 31 March 2015. These figures are derived from the annual Statement of Accounts which is subject to audit and formal approval by the Authority's external auditors, Ernst & Young. For comparative purposes, the final approved budget figures are also shown.

Further details are available on request from the Head of Finance, Yare House, 62-64 Thorpe Road, Norwich NR1 1RY or by email from emma.krelle@broads-authority.gov.uk.

The Statement of Accounts for 2014/15 has not yet been audited.

DIRECTORATE	Original Budget 2014/15			Latest Available Budget 2014/15			Actual Income and Expenditure 2014/15		
	General	Navigation	Consolidated	General	Navigation	Consolidated	General	Navigation	Consolidated
INCOME									
National Park Grant	(3,245,393)	-	(3,245,393)	(3,245,393)	-	(3,245,393)	(3,245,393)	-	(3,245,393)
Navigation Charges									
Hire Craft Tolls	-	(1,118,300)	(1,118,300)	-	(1,118,300)	(1,118,300)	-	(1,073,764)	(1,073,764)
Private Craft Tolls	-	(1,792,100)	(1,792,100)	-	(1,792,100)	(1,792,100)	-	(1,833,042)	(1,833,042)
Short Visit Tolls	-	(37,721)	(37,721)	-	(37,721)	(37,721)	-	(41,521)	(41,521)
Other Toll Income	-	(18,750)	(18,750)	-	(18,750)	(18,750)	-	(17,907)	(17,907)
Interest Received	(15,000)	(15,000)	(30,000)	(15,000)	(15,000)	(30,000)	(9,726)	(9,726)	(19,452)
INCOME TOTAL	**(3,260,393)**	**(2,981,871)**	**(6,242,264)**	**(3,260,393)**	**(2,981,871)**	**(6,242,264)**	**(3,255,119)**	**(2,975,960)**	**(6,231,079)**
OPERATIONS									
Construction & Maintenance Salaries	499,036	575,734	1,074,770	499,036	575,734	1,074,770	492,858	567,975	1,060,833
Equipment, Vehicles & Vessels	108,891	296,109	405,000	106,807	280,743	387,550	142,986	374,765	517,751
Water Management	5,000	62,500	67,500	5,000	76,850	81,850	2,781	55,619	58,400
Land Management	49,000	-	49,000	63,850	-	63,850	133,991	-	133,991
Practical Maintenance	29,000	317,035	346,035	29,000	324,205	353,205	28,634	357,643	386,277
Rangers Salaries	232,004	348,006	580,010	232,004	348,006	580,010	245,912	368,868	614,780
Ranger Services	20,400	97,600	118,000	20,400	97,600	118,000	25,650	89,055	114,705
Safety	22,572	63,328	85,900	22,572	63,328	85,900	21,677	60,411	82,088
Asset Management	40,220	65,430	105,650	40,220	65,430	105,650	50,082	73,799	123,881
Volunteers	43,638	18,702	62,340	43,638	18,702	62,340	40,876	17,518	58,394
Operational Premises	84,547	78,623	163,170	89,024	85,338	174,362	88,091	88,701	176,792
Management & Admin	56,118	71,422	127,540	56,118	71,422	127,540	55,379	70,483	125,862
Operations Income	(126,554)	(27,646)	(154,200)	(126,554)	(27,646)	(154,200)	(198,042)	(18,941)	(216,983)
OPERATIONS TOTAL	**1,063,872**	**1,966,843**	**3,030,715**	**1,081,115**	**1,979,712**	**3,060,827**	**1,130,875**	**2,105,896**	**3,236,771**
PLANNING & RESOURCES									

Development Management	284,910	-	284,910	284,910	-	284,910	280,212	-	280,212
Strategy & Projects Salaries	236,658	22,417	259,075	244,435	23,186	267,621	294,736	21,939	316,675
Biodiversity Strategy	35,000	-	35,000	77,298	-	77,298	68,696	-	68,696
Strategy & Projects	80,859	4,041	84,900	82,879	4,041	86,920	92,454	4,018	96,472
Waterways & Recreation Strategy	40,960	43,960	84,920	40,960	43,960	84,920	32,843	40,100	72,943
Project Funding	107,020	13,760	120,780	136,665	30,730	167,395	170,266	31,682	201,948
Partnerships /HLF	50,000	-	50,000	50,000	-	50,000	-	-	-
SDF transfer to reserves	12,000	-	12,000	12,000	-	12,000	12,000	-	12,000
SDF	-	-	-	-	-	-	34,940	-	34,940
Finance & Insurance	178,382	158,187	336,569	188,382	158,187	346,569	177,361	148,346	325,707
Communications	238,212	78,048	316,260	238,212	78,048	316,260	249,050	78,446	327,496
Visitor Centres & Yacht Stations	324,932	123,727	448,659	325,432	125,228	450,660	309,621	122,559	432,180
Collection of Tolls	-	113,660	113,660	-	113,660	113,660	-	113,770	113,770
ICT	179,439	88,381	267,820	179,439	88,381	267,820	187,739	73,420	261,159
Legal	78,000	42,000	120,000	78,000	42,000	120,000	104,368	16,945	121,313
Head Office Premises	170,400	69,600	240,000	170,400	69,600	240,000	160,104	65,394	225,498
Management & Admin	188,193	85,757	273,950	188,193	85,757	273,950	184,205	81,872	266,077
Planning & Resources Income	(263,249)	(56,250)	(319,499)	(263,249)	(56,250)	(319,499)	(394,074)	(78,478)	(472,552)
PLANNING AND RESOURCES TOTAL	**1,941,716**	**787,288**	**2,729,004**	**2,033,956**	**806,528**	**2,840,484**	**1,964,521**	**720,013**	**2,684,534**
CHIEF EXECUTIVE									
Human Resources	78,553	54,587	133,140	78,553	54,587	133,140	83,313	57,896	141,209
Governance	114,174	56,236	170,410	114,174	56,236	170,410	113,439	55,873	169,312
Chief Executive	61,331	40,159	101,490	61,331	40,159	101,490	64,095	41,967	106,062
Chief Executive Income	-	-	-	-	-	-	(152)	(75)	(227)
CHIEF EXECUTIVE TOTAL	**254,058**	**150,982**	**405,040**	**254,058**	**150,982**	**405,040**	**260,695**	**155,661**	**416,356**
CORPORATE ITEMS									
Pension Lump Sum Payments	55,800	37,200	93,000	55,800	37,200	93,000	55,800	37,200	93,000
Redundancy and Reorganisation costs	-	-	-	-	-	-	-	-	-
STEP	-	-	-	-	-	-	2,332	-	2,332
PRISMA	-	-	-	-	-	-	-	74,346	74,346
Contributions from Earmarked Reserves									
Property	-	-	-	-	-	-	-	(10,511)	(10,511)
Plant, Vessels & Equipment	-	-	-	-	-	-	(103,844)	(30,358)	(134,202)
Premises	-	-	-	-	-	-	-	-	-
Planning Delivery Grant	-	-	-	-	-	-	(97,008)	-	(97,008)
Mobile Phone	-	-	-	-	-	-	(13,102)	-	(13,102)
Sustainable Development	-	-	-	-	-	-	(34,940)	-	(34,940)

PRISMA	-	-	-	-	-	-	-	(74,305)	(74,305)
Section 106 Agreements	-	-	-	-	-	-	11,311	-	11,311
STEP	-	-	-	-	-	-	(2,332)	-	(2,332)
Upper Thurne	-	-	-	-	-	-	(28,861)	-	(28,861)
CORPORATE ITEMS TOTAL	**55,800**	**37,200**	**93,000**	**55,800**	**37,200**	**93,000**	**(210,644)**	**(3,628)**	**(214,272)**
NET EXPENDITURE	**3,315,446**	**2,942,313**	**6,257,759**	**3,424,929**	**2,974,422**	**6,399,351**	**3,145,447**	**2,977,942**	**6,123,389**
(SURPLUS) / DEFICIT	**55,053**	**(39,558)**	**15,495**	**164,536**	**(7,449)**	**157,087**	**(109,672)**	**1,982**	**(107,690)**

Navigation Committee
3 September 2015
Agenda Item No 12

Navigation Income and Expenditure:
1 April to 30 June 2015 Actual and 2015/16 Forecast Outturn
Report by Head of Finance

Summary: This report provides the Committee with details of the actual navigation income and expenditure for the three month period to 30 June 2015, and provides a forecast of the projected expenditure at the end of the financial year (31 March 2016).

Members are asked to note the position in respect of Hickling and Mutford Lock in regards to 2015/16 and consider whether to support the additional budget request for referral to the Authority as set out in paragraph 6.2 and 7.1.

1 Introduction

1.1 Following on from member feedback there has been a slight change in presentation to the figures within this report. Colours have been removed and all figures are now in black. Where variances are reported brackets have been removed and replaced with a –/+. Where a variance has a – this means an adverse variance, and a + means a favourable variance. Budgeted and Actual Income still remain in brackets to be consistent with the presentation of the Financial Statement of Accounts.

1.2 In addition reserve expenditure has now been reflected within the Latest Available Budget (LAB) to help budget holders with the monitoring of their budgets. This expenditure is then offset within the Projects, Corporate Items and Contributions from Earmarked Reserves line.

2 Overview of Actual Income and Expenditure

Table 1 – Actual Navigation I&E by Directorate to 30 June 2015

	Profiled Latest Available Budget	**Actual Income and Expenditure**	**Actual Variance**
Income	(2,651,433)	(2,609,571)	- 41,862
Operations	742,022	699,481	+ 42,541
Planning and Resources	226,693	239,719	-13,026
Chief Executive	31,269	27,614	+ 3,655
Projects, Corporate Items and Contributions from			

Earmarked Reserves	(143,079)	(165,714)	+ 22,635
Net (Surplus) / Deficit	**(1,794,528)**	**(1,808,471)**	**+13,943**

2.1 Core navigation income is behind of the profiled budget at the end of month three. The overall position as at 30 June 2015 is a adverse variance of £41,862 or 1.58% difference from the profiled LAB. This is principally due to:

- An overall adverse variance of £41,862 within toll income:
  - Hire Craft Tolls £51,521 below the profiled budget.
  - Private Craft Tolls £10,377 above the profiled budget.
- An underspend within Operations budgets relating to:
  - Water Management is under the profiled budget by £19,352 due to timing differences between the profiled budget and actual receipt of invoices.
  - Practical Maintenance is under the profiled budget by £29,307 due to timing differences between the profiled budget and actual receipt of invoices.
- An overspend within Planning and Resources budgets relating to:
  - Finance and Insurance is over the profiled budget by £20,277 due to Insurance billing being earlier than expected.
  - This is offset by small underspends within Yacht Stations and Planning and Resources Management and Administration.

2.2 The charts at Appendix 1 provide a visual overview of actual income and expenditure compared with both the original budget and the LAB.

3 Latest Available Budget

3.1 The Authority's income and expenditure is monitored against the latest available budget (LAB) for 2015/16. The LAB is based on the original budget for the year, with adjustments for known and approved budget changes such as carry-forwards and budget virements. Full details of movements from the original budget are set out in Appendix 2.

Table 2 – Adjustments to Navigation LAB

	Ref	**£**
Original navigation budget 2015/16 (surplus)	Item 12 23/01/15	(55,803)
Approved carry-forwards from 2014/15		10,669
Virement between VES and DRD for equipment hire relating to Dredging jobs	Director approved	2,695
LAB at 30 June 2015		**(42,439)**

3.2 The LAB therefore provides for a reduced navigation surplus of £42,439 in 2015/16 as at 30 June 2015.

4 Overview of Forecast Outturn 2015/16

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

4.2 As at the end of June 2015, the forecast outturn indicates:

- The total forecast income is £3,011,680, or £22,500 less than the LAB.
- Total expenditure is forecast to be £2,996,873.
- The resulting surplus for the year is forecast to be £14,807.

4.3 The forecast outturn expenditure reflects the following changes from the LAB as shown in Table 3. The forecast surplus represents an adverse variance of £27,633 against the LAB.

Table 3 – Adjustments to Forecast Outturn

	£
Forecast outturn surplus per LAB	(42,439)
Increase forecast Private Craft Toll income	(4,000)
Decrease forecast Hire Craft Toll income	26,500
Increase Waterways Strategy expenditure	5,132
Forecast outturn surplus as at 30 June 2015	**(14,807)**

4.4. The main reason for the difference between the forecast outturn and the LAB is the change in predictions for navigation toll income, which are based on the latest actual income figures and show a net overall decrease of £22,500 in forecast toll income for the year.

5 Reserves

Table 4 – Navigation Earmarked Reserves

	Balance at 1 April 2015	**In-year movements**	**Current reserve balance**
	£	**£**	**£**
Property	(510,132)	76,732	(433,400)
Plant, Vessels and Equipment	(202,403)	46,727	(155,676)
Premises	(78,552)	0	(78,552)
PRISMA	(171,869)	14,899	(156,970)
Total	(962,956)	138,358	(824,597)

5.1 Repairs to Mutford Lock have been undertaken by USL Diving Contractors which has been funded from the Property reserve. For further details please refer to agenda item number 10 regarding the ongoing works and section 6 below.

6 Hickling

6.1 Last October the committee was asked to consider whether to raise Tolls to generate sufficient income to fund works on Hickling Broad. The project was still in development and the committee recommended a 1.7% increase in Tolls without making any provision for Hickling. This recommendation was accepted by the Broads Authority.

6.2 Considerable progress has been made this year in developing the proposed enhancement scheme for Hickling but there is no financial provision in this year's budget (see agenda item 7). To take the project forward £34,500 is required, however savings made elsewhere reduces this figure to £21,000.

6.3 If members support this additional expenditure this would mean that the forecast would reduce further to a £6,193 deficit which would result in a year end reserve position of £273,945 before yearend adjustments. This would mean that the Navigation reserve balance would see a reduction and would fall below the 10% recommended minimum to 9.1%.

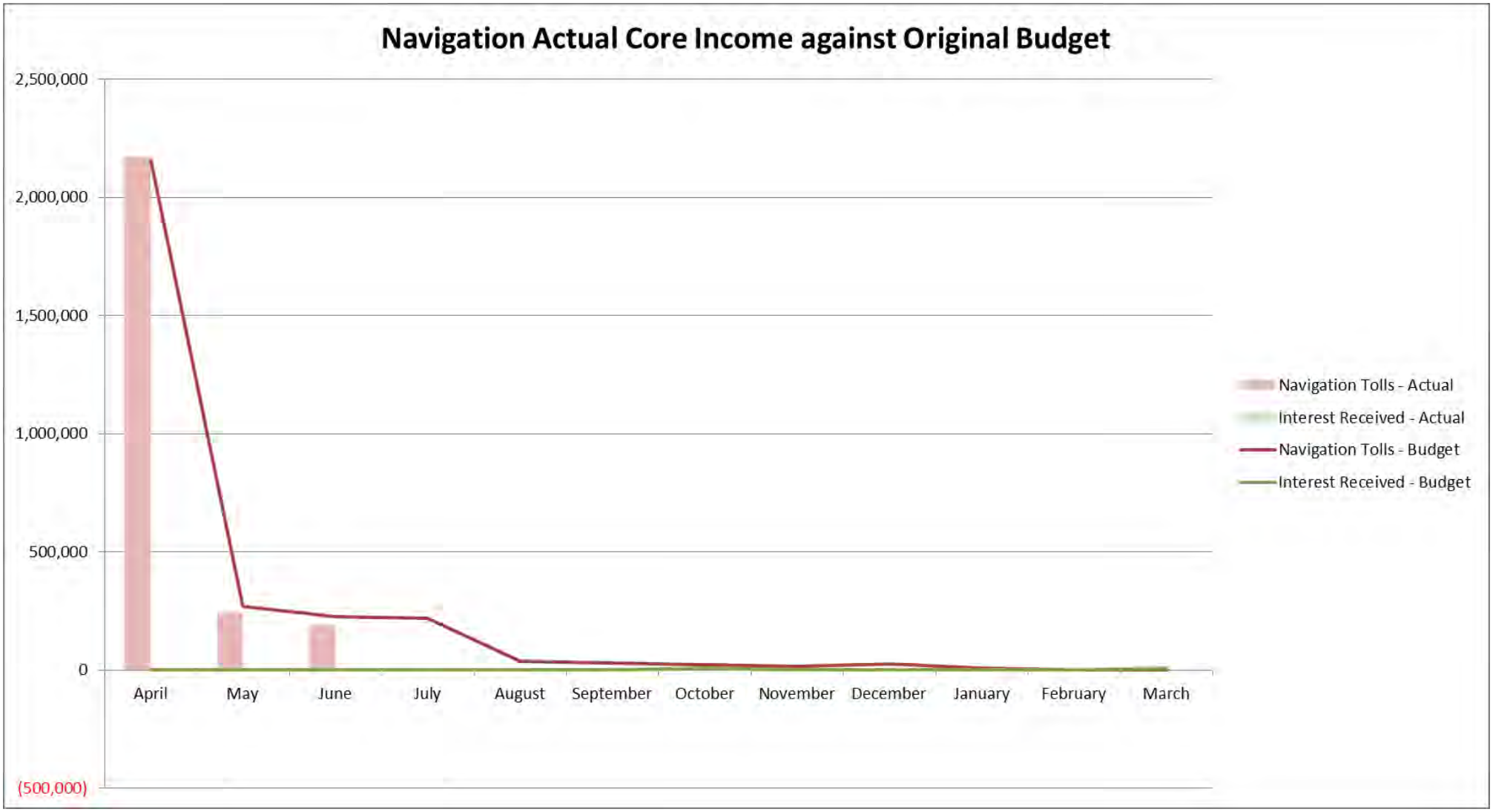
7 Mutford Lock

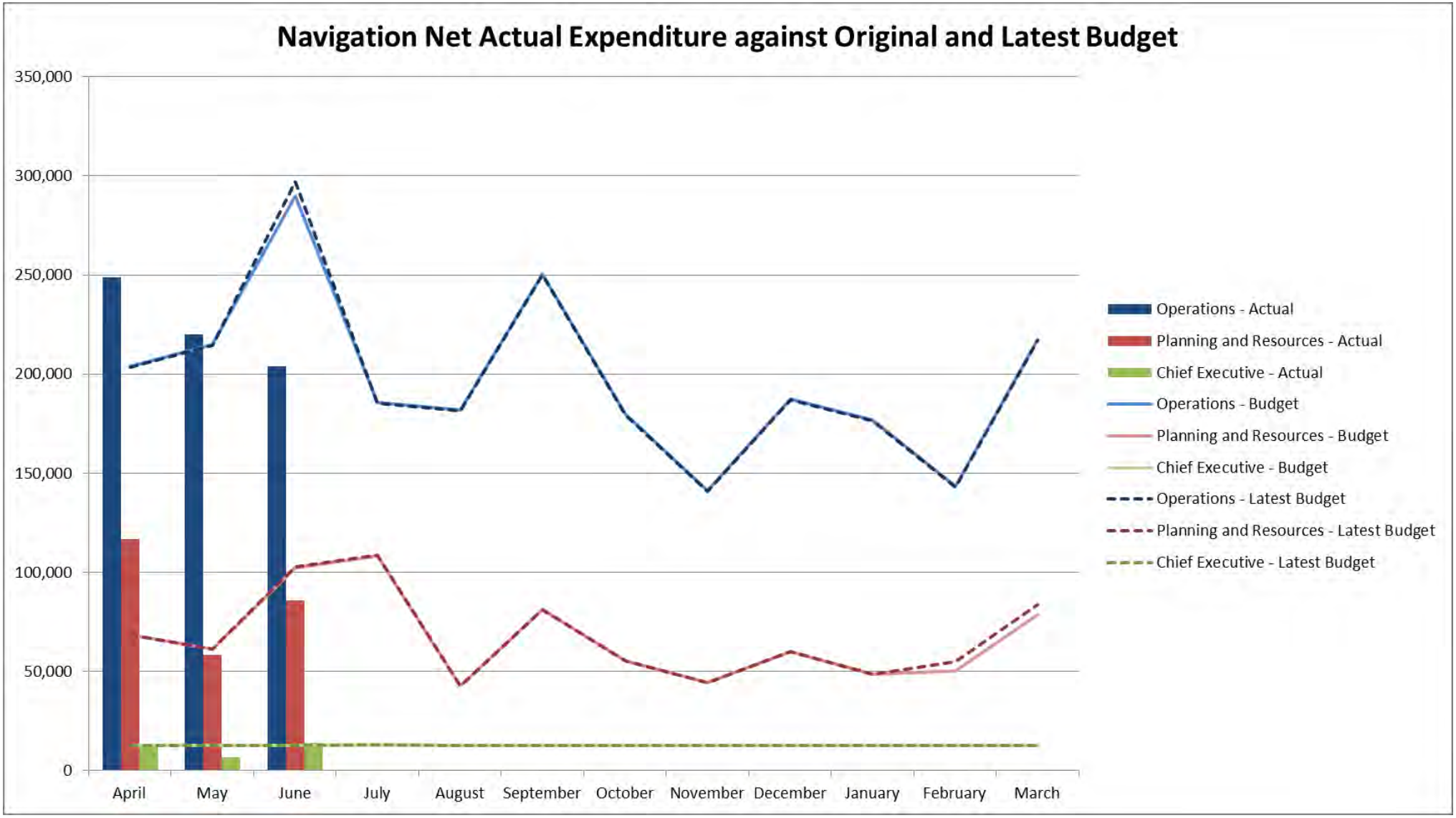
7.1 When the budget was originally set it was unknown the extent of the repairs that Mutford lock would require without further investigation so the expenditure from the reserve was set as zero. However a clearer idea of works required is now known and it is proposed that an additional £89,220 will be required from the reserve. This covers the £31,220 already spent relating to the gate failure and urgent repairs and the £56,000 required later on in the year for additional non-routine maintenance works. This additional spend will not affect the year end position on the Navigation reserve as it will be fully funded from the Property reserve which contains provision for Mutford lock. It is predicted that the proportion relating specifically to Mutford would stand at £262,327 at the end of March 2016.

8 Summary

8.1 The current forecast outturn position for the year suggests a surplus within the navigation budget which would result in a navigation reserve balance of approximately £294,945 at the end of 2015/16 (before any year-end adjustments). This would mean the Navigation Reserve be slightly below the recommended 10% at 9.8%. However if the additional budget above is agreed it will reduce further to 9.1%. This would need to be taken into account when setting the 2016/17 to try and restore this.

Background Papers:	Nil
Author:	Emma Krelle
Date of Report:	19 August 2014
Broads Plan Objectives:	None
Appendices:	APPENDIX 1 – Navigation Actual Income and Expenditure Charts to 30 June 2015 APPENDIX 2 – Financial Monitor: Navigation Income and Expenditure 2015/16


Navigation Actual Core Income against Original Budget
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
(500,000)
April
May
June
July
August
September
October
November
December
January
February
March
Navigation Tolls - Actual
Interest Received - Actual
Navigation Tolls - Budget
Interest Received - Budget


Navigation Net Actual Expenditure against Original and Latest Budget
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
April
May
June
July
August
September
October
November
December
January
February
March
Operations - Actual
Planning and Resources - Actual
Chief Executive - Actual
Operations - Budget
Planning and Resources - Budget
Chief Executive - Budget
Operations - Latest Budget
Planning and Resources - Latest Budget
Chief Executive - Latest Budget

To 30 June 2015

Budget Holder	(All)

Row Labels	Original Budget (Navigation)	Budget Adjustments (Navigation)	Latest Available Budget (Navigation)	Forecast Outturn (Navigation)	Forecast Outturn Variance (Navigation)
	Values				
Income	(3,034,180)		(3,034,180)	(3,011,680)	- 22,500
National Park Grant	0		0	0	+ 0
Income	0		0	0	+ 0
Hire Craft Tolls	(1,090,525)		(1,090,525)	(1,064,025)	- 26,500
Income	(1,090,525)		(1,090,525)	(1,064,025)	- 26,500
Private Craft Tolls	(1,869,042)		(1,869,042)	(1,873,042)	+ 4,000
Income	(1,869,042)		(1,869,042)	(1,873,042)	+ 4,000
Short Visit Tolls	(38,363)		(38,363)	(38,363)	+ 0
Income	(38,363)		(38,363)	(38,363)	+ 0
Other Toll Income	(18,750)		(18,750)	(18,750)	+ 0
Income	(18,750)		(18,750)	(18,750)	+ 0
Interest	(17,500)		(17,500)	(17,500)	+ 0
Income	(17,500)		(17,500)	(17,500)	+ 0
Operations	2,457,058	2,695	2,459,753	2,459,753	+ 0
Construction and Maintenance Salaries	628,981		628,981	628,981	+ 0
Salaries	628,981		628,981	628,981	+ 0
Expenditure			0		+ 0
Equipment, Vehicles & Vessels	455,975	(5,005)	450,970	450,970	+ 0
Income			0		+ 0
Expenditure	455,975	(5,005)	450,970	450,970	+ 0
Water Management	167,500	7,700	175,200	175,200	+ 0
Expenditure	167,500	7,700	175,200	175,200	+ 0
Land Management	0		0	0	+ 0
Income	0		0	0	+ 0
Expenditure	0		0	0	+ 0

Row Labels	Original Budget (Navigation)	Budget Adjustments (Navigation)	Latest Available Budget (Navigation)	Forecast Outturn (Navigation)	Forecast Outturn Variance (Navigation)
Practical Maintenance	395,200		395,200	395,200	+ 0
Income	(7,000)		(7,000)	(7,000)	+ 0
Expenditure	402,200		402,200	402,200	+ 0
Ranger Services	498,946		498,946	498,946	+ 0
Income	(21,000)		(21,000)	(21,000)	+ 0
Salaries	347,346		347,346	347,346	+ 0
Expenditure	172,600		172,600	172,600	+ 0
Pension Payments			0		+ 0
Safety	58,326		58,326	58,326	+ 0
Income	(9,000)		(9,000)	(9,000)	+ 0
Salaries	40,771		40,771	40,771	+ 0
Expenditure	26,555		26,555	26,555	+ 0
Asset Management	68,489		68,489	68,489	+ 0
Income	(450)		(450)	(450)	+ 0
Salaries	17,564		17,564	17,564	+ 0
Expenditure	51,375		51,375	51,375	+ 0
Volunteers	25,868		25,868	25,868	+ 0
Income	(400)		(400)	(400)	+ 0
Salaries	17,468		17,468	17,468	+ 0
Expenditure	8,800		8,800	8,800	+ 0
Premises	86,357		86,357	86,357	+ 0
Income	(853)		(853)	(853)	+ 0
Expenditure	87,211		87,211	87,211	+ 0
Operations Management and Administration	71,417		71,417	71,417	+ 0
Salaries	64,417		64,417	64,417	+ 0
Expenditure	7,000		7,000	7,000	+ 0
Planning and Resources	745,013	10,669	755,682	760,815	- 5,133
Development Management	0		0	0	+ 0
Income	0		0	0	+ 0

Row Labels	Original Budget (Navigation)	Budget Adjustments (Navigation)	Latest Available Budget (Navigation)	Forecast Outturn (Navigation)	Forecast Outturn Variance (Navigation)
Salaries	0		0	0	+ 0
Expenditure	0		0	0	+ 0
Pension Payments			0		+ 0
Strategy and Projects Salaries	18,439	769	19,208	19,208	+ 0
Income	0		0	0	+ 0
Salaries	18,439	769	19,208	19,208	+ 0
Expenditure	0	0	0	0	+ 0
Biodiversity Strategy	0	0	0	0	+ 0
Income	0		0	0	+ 0
Expenditure	0	0	0	0	+ 0
Strategy and Projects	3,265	0	3,265	3,265	+ 0
Salaries	3,265		3,265	3,265	+ 0
Expenditure	0	0	0	0	+ 0
Waterways and Recreation Strategy	43,160		43,160	48,293	- 5,133
Salaries	34,160		34,160	34,160	+ 0
Expenditure	9,000		9,000	14,133	- 5,133
Project Funding	3,740		3,740	3,740	+ 0
Income	0		0	0	+ 0
Salaries	3,740		3,740	3,740	+ 0
Expenditure	0		0	0	+ 0
Pension Payments			0		+ 0
Partnerships / HLF	0		0	0	+ 0
Expenditure	0		0	0	+ 0
Finance and Insurance	158,151		158,151	158,151	+ 0
Salaries	64,151		64,151	64,151	+ 0
Expenditure	94,000		94,000	94,000	+ 0
Communications	62,048	0	62,048	62,048	+ 0
Income			0		+ 0
Salaries	50,048		50,048	50,048	+ 0

Row Labels	Original Budget (Navigation)	Budget Adjustments (Navigation)	Latest Available Budget (Navigation)	Forecast Outturn (Navigation)	Forecast Outturn Variance (Navigation)
Expenditure	12,000	0	12,000	12,000	+ 0
Visitor Centres and Yacht Stations	74,220		74,220	74,220	+ 0
Income	(56,250)		(56,250)	(56,250)	+ 0
Salaries	106,470		106,470	106,470	+ 0
Expenditure	24,000		24,000	24,000	+ 0
Collection of Tolls	116,740		116,740	116,740	+ 0
Salaries	104,040		104,040	104,040	+ 0
Expenditure	12,700		12,700	12,700	+ 0
ICT	87,245	9,900	97,145	97,145	+ 0
Salaries	43,784		43,784	43,784	+ 0
Expenditure	43,461	9,900	53,361	53,361	+ 0
Legal	29,596		29,596	29,596	+ 0
Income			0		+ 0
Salaries	15,596		15,596	15,596	+ 0
Expenditure	14,000		14,000	14,000	+ 0
Premises - Head Office	73,819		73,819	73,819	+ 0
Expenditure	73,819		73,819	73,819	+ 0
Planning and Resources Management and Administration	74,589		74,589	74,589	+ 0
Income			0		+ 0
Salaries	39,420		39,420	39,420	+ 0
Expenditure	35,169		35,169	35,169	+ 0
Chief Executive	125,405		125,405	125,405	+ 0
Human Resources	45,727		45,727	45,727	+ 0
Income			0		+ 0
Salaries	21,332		21,332	21,332	+ 0
Expenditure	24,395		24,395	24,395	+ 0
Governance	39,531		39,531	39,531	+ 0
Salaries	21,645		21,645	21,645	+ 0
Expenditure	17,886		17,886	17,886	+ 0

Row Labels	Original Budget (Navigation)	Budget Adjustments (Navigation)	Latest Available Budget (Navigation)	Forecast Outturn (Navigation)	Forecast Outturn Variance (Navigation)
Chief Executive	40,147		40,147	40,147	+ 0
Salaries	40,147		40,147	40,147	+ 0
Expenditure			0		+ 0
Projects and Corporate Items	44,800		44,800	44,800	+ 0
PRISMA			0		+ 0
Expenditure			0		+ 0
Corporate Items	44,800		44,800	44,800	+ 0
Pension Payments	44,800		44,800	44,800	+ 0
Contributions from Earmarked Reserves	(393,900)	0	(393,900)	(393,900)	+ 0
Earmarked Reserves	(393,900)	0	(393,900)	(393,900)	+ 0
Expenditure	(393,900)	0	(393,900)	(393,900)	+ 0
Grand Total	**(55,804)**	**13,364**	**(42,440)**	**(14,807)**	**- 27,633**

Construction, Maintenance and Environment Work Programme Progress Update

Report by Head of Construction, Maintenance & Environment

Summary: This report sets out the progress made in the delivery of the 2015/16 Construction, Maintenance and Environment Section work programme.

This is an update report and Member's questions and comments are welcomed.

1 Construction Programme Update 2015/16

1.1 The progress of the Construction and Maintenance work programme is described in this report. As previously reported verbally to members, a further detailed breakdown shows that up to the end of July, 18,750m^3 of sediment has been removed from the Rivers and Broads, and the details of quantities and costs achieved so far are set out in Appendix 1. This represents 38% of the programmed target of at least 50,000m^3.

1.2 Dredging work at Oulton Broad has continued over the summer. The dredging crew mobilised into the North Bay on 1 June and continued dredging until 21 August. The work has been carried out by Grab 10 and the two large 80 tonne wherries, John Fox and Tony Hewett. The sediment has been offloaded by excavator into a setback area at Oulton Dyke. On Friday 21 August dredging equipment will be moved off the Broad to give clear access for sailing during Oulton Regatta Week. The dredging crew will then re-mobilise to the River Yare to start dredging the Whitlingham bends.

1.3 The second dredging crew has been busy dredging on the River Bure, near to Horning Hall. Two hydraulic excavators and the two new wherries have been working along this busy stretch of the river removing sediment build up on the bends. The deposition area is into a setback area at Horning Hall.

1.4 As the bird nesting season has finished the Fen Harvester programme has begun with the Softrak carrying out works at Horning Water Works, Ludham and How Hill.

1.5 The Fen excavator is working at Buttle Marsh to remove the spoil that resulted from a new scrape, dug to create improved habitat on this land. The scrape was dug in March 2015 and the arisings allowed to stand and dry, they are now being reused to build up the track. A higher service track will give better year round access, even when water levels rise.

1.6 Members of the Construction Team have also been preparing steel marker posts ready for their installation at Breydon. Seven red and seven green channel markers have been primed and painted and will be installed in early September.

1.7 As highlighted and agreed in the Vessel and Equipment Strategy capital purchases of priority equipment is also being progressed this year. The eight new Linkflotes (large steel box sections we float excavators and cranes on) have been ordered from *VolkerBrooks* and are scheduled for delivery in late August 2015. Two of the eight flotes have been fitted to allow spud legs to be installed. Spud legs allows the unit to anchor to the river bed without the need for additional wires, anchors and winches, this saves time in moving the rig, reduces manual handling and takes up less space on the river.

1.8 The third new wherry order, build to the Broads Authority bespoke design, has also been placed and is being built in Polruan, Cornwall. The build is on schedule and its estimated delivery is in November 2015.

2 Maintenance Programme Update 2015/16

2.1 The maintenance reports below give a few highlights of the work that has been carried out since the last navigation report.

2.2 Having made a slow start due to breakdowns, the weed harvesters did some sterling work and cut the Upper Thurne, Somerton, Waxham Cut, and Catfield dyke, totalling over six miles of cut navigational channel. They have begun a second cut at Somerton and proceeded onto the River Bure to cut between Belaugh and Coltishall Lock. Our second harvester has been working on the Upper Ant and cut between Wayford Bridge and Dilham 24hr mooring, Upper Waveney between Beccles and Geldeston and Norwich area, including New Mills to Thorpe Island. The Norwich area is now having a second cut due to a good growing season. This is the first time we have had to carry out two cuts at Norwich.

2.3 Mooring refurbishment has been ongoing at Womack dyke, with 130m of timber quay heading being replaced; the mooring posts have also been replaced, with posts being installed at every 3m. The mooring was open during this work with small 30m sections closed at a time to allow the work to continue.

2.4 We have also been refurbishing Wayford moorings which had approximately 70 meters of quay heading timber and new mooring posts every 3 metres and we completed Bramerton moorings, with 300m on new timbering and replacement mooring posts.

2.5 The unseasonal weather in the late part of July and into early part of August, saw a number of trees fall and obstruct the navigation; two large trees were removed at Trowse and one from Belaugh.

2.6 Warm days and the odd rainfall has seen the grass on the 24hr mooring grow quickly, this has meant extra cutting and the Maintenance crews and Rangers have been mowing these areas every three weeks this season .

3 Environment Team Programme Update 2015/16

3.1 The Environment Officers have been heavily involved with the Water Plant Survey, with Hickling, Horsey, Heigham Sound, Wroxham, Cromes, Hudson Bay, Pound End, Sotshole and Barton all have been surveyed. Other areas already completed include Rockland, Wheatfen, Strumpshaw, and Bridge Broad. A total of 29 Sites will have been surveyed this year.

3.2 A hydro-acoustic survey of Hickling Broad has been completed, this survey looked at the height and coverage of water plants within this area. The hydro-acoustic equipment was also used to assist Norfolk Wildlife Trust carry out a similar survey on the Trinity Broads.

3.3 In order to be able to carry out dredging on the Lower Yare, mitigation works have to be planned in advance, so Environment Officers have been working at the set-back area near Six Mile House, to ensure this location can accept the 5,000m^3 of sediment later in the year.

3.4 Other Environmental tasks taking place over the summer include: sites visits with Anglian Water at Whitlingham as part of the 5 year management agreement, getting quotes for bank stabilisation works on the Upper Bure, water sampling to establish the impacts of stockpiling fen harvester arisings on the surrounding fen and sediment coring on Hickling to differentiate the layers of peat and clay within the dredging areas.

3.5 The works at Turn Tide Jetty have been completed and include the additional works to stop scouring on the upstream section, on the River Yare side. These works were largely longer length sheets being placed to stop eddying waters washing material from behind the structure. The large barge used by the contractors will remain moored alongside the Jetty until mid-September when it will move onto Breydon to replace 14 channel markers.

4 Fitters

4.1 Expressions of interest have been sought for the fitting out of a Patrol Launch (using the existing mould within the mould-tool). Officers are reviewing these expressions and will be progressing a public tender, in accordance with the Authorities Standing Orders and being mindful of the latest version of the Public Contract Regulations, in September.

4.2 Over the summer the fitters have been carrying out programmed refits on key work boats and vessels. Z1 and the Tug Richard were both lifted out, shot-blasted back to bare metal and repainted with primer and numerous top coats to preserve their structural integrity.

4.3 This demanding work programme has proven to be hard upon our older plant and equipment and the Fitting team has been fully occupied with repairs to the Weed harvesters, Grab 10, Electric Eel, Yanmar Dumper, and the Motor Launches

4.4 Routine services have been carried out on motor launch Wensum, Ant, Charles Collier, Spirit of Breydon, as well as wherry Tony Hewett, Iona, Gleaner and the John Fox.

Dredging Progress 2015/16 (to end July 2015) **APPENDIX 1**

Project Title	Project Element	Active BA dredging weeks Completed (to end Jul/Planned	Volume Removed m^3		Annual project cost[1]	Actual project cost (Apr-Jul)
			Planned	Actual	Planned	Actual
River Ant	Irstead to Barton Broad	3/4	1,500	1,030	£24,340	£21,560
Completed mid May 2015						
River Chet	Pye's Mill to Loddon Basin	7/4	1,000	2,900	£10,810	£21,590
Completed mid May 2015. Additional volume near Loddon Basin removed						
Upper Bure	Coltishall Lock	5/8	2,000	900	£29,570	£26,640
Pumping completed end May 2015.Total sediment removed 1,600 m^3. Mud due to be spread in September 2015						
Upton Dyke	Restoration work on setback filled in 2014/15	NA	NA	NA	£7,000	£1,040
Completed at end of May 2015.						
Mid Bure	Thurne Mouth to Horning Hall	11/12	8,000	6,550	£80,070	£74,570
Dredging started mid May 2015, filling setback area upstream of Ant Mouth						
Mid Bure	Thurne bank rond restoration	NA	NA	NA	£10,550	£0
Re-profiling rond upstream of Thurne White Mill due August 2015						
Oulton Broad	Oulton Broad	9/14	10,000	7,370	£73,090	£56,960
Mobilisation started mid May 2015. Due to end 21tst August 2015.						
Mid Bure	Acle to Stokesby	0/10	7,000	0	£56,150	£150
Use of setbacks near Acle Bridge agreed.						

[1] project costs includes staff time for all elements (pre-works ecological mitigation, site set-up, active dredging & site restoration); BA plant; & budgetary expenditure (equipment hire, contractor costs, mitigation works, materials & consumables etc); within the reporting period. 2015/16 costs for staff and BA plant will be updated following analysis of previous year's average figures.

Upper Yare	Whitlingham bends	0/8	4,500	0	£53,500	£160
Arisings to Postwick Tip. Working window swapped with Lower Yare, to start winter 2015/16						
Lower Yare	Seven Mile House to Berney Arms	0/10	5,000	0	£50,330	£270
Use of setbacks downstream of Reedham. Working window swapped with Upper Yare, to start September 2015.						
Upper Bure	Belaugh to Coltishall	Contractors	1,500	0	£28,000	£340
Sediment re-use in bank stabilisation schemes						
Hickling Broad	Navigation channel in NW corner and approaches to Catfield Dyke	0/8	3,500	0	£90,000	£4,540
Subject to gaining all required consents						
TOTAL		**35/78**	**50,000**	**18,750**	**£513,410**	**£207,820**

Navigation Committee
3 September 2015
Agenda Item No 14

Chief Executive's Report

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

1 Broads Authority – Membership and Appointments

1.1 At the Authority's meeting on 10 July 2015, Professor Jacquie Burgess was appointed Chairman and Sir Peter Dixon, Vice-Chairman of the Authority for the coming year 2015/16 until the Annual meeting on 8 July 2016. The Authority also appointed Mr Matthew Bradbury and Mr John Ash and re-appointed Mr Kelvin Allen, Sir Peter Dixon and Mr Phil Durrant onto the Navigation Committee.

1.2 Following discussions at the previous Authority meeting and as referred to in this report to the 4 June 2015, and as a consequence of Members wishing to become more engaged in the work of the organisation, it was agreed to replace the previous model of appointing Lead Members with specialist workshops. A programme has been arranged to take account of some of the key topics and issues with which the Authority is dealing and are associated with the Strategic Priorities. The Authority has decided to keep the Lead Member role for Safety Management and Heritage (as required by Historic England) and Mr Michael Whitaker and Miss Sholeh Blane have been appointed respectively.

2 Member Workshops

Contact Officer/ Broads Plan Objective: John Packman /Multiple

2.1 At its meeting on 10 July 2015, Broads Authority members decided to use a series of Member Workshops to improve their knowledge of and engagement with a range of future policy matters.

2.2 The Workshops, while not formal decision making events, will look to improve member understanding on specific issues as well as providing officers with strategic direction on the broad direction of key areas of future work. The Workshops will therefore be for members of the Authority and the Navigation Committee only, supported by officers and external facilitators and experts as necessary. There is no single prescribed format for the workshops and the scope of each workshop will be determined depending on the subject matter and the required outcomes.

2.3 Subjects for the proposed workshops have been agreed and specific dates for the first three are as follows:

1. Finance Training – 22 September 2015 (half day - am before FSAC)
2. Tolls – 23 September 2015 – (All day event)
3. Broads Plan – 7 October 2015 (Half day am)

2.4 However clearly on some of the issues, the development of the new Broads Plan being the most obvious, in order to augment the development of the strategy there will also need to be engagement with stakeholders on the same subjects and the Member Workshop forms part of a wider process e.g the intention is that the next Broads Forum (5 November), could be largely devoted to a discussion on the content of the next Broads Plan.

2.5 Tolls Workshop Wednesday 23 September

2.5.1 This will focus on two main areas:

1. The current system for tolls collection based on an annual tolls year starting on 1 April, the display of a toll plaque and the square area of the vessel.
2. The structure of the tolls system which is based on multipliers and discounts of the charges for the private motor boats which in turn is based on a fixed and variable charge.

2.5.2 This session will be externally facilitated and Members will also hear from three invited guests Brian Clark (British Marine Federation), Richard Card (Norfolk and Suffolk Boating Association) and Tony Howes (Broads Hire Boat Federation) as well as receiving some more specific detailed information from the recent Boat owners Survey from Insight Track.

2.5.3 The workshop will not be expected to make any specific recommendations or decisions in respect of Tolls for 2016/17 but members will be asked for their thoughts on the way forward for future years

3 Strategic Priorities 2015/16

Contact Officer/ Broads Plan Objective: Maria Conti /Multiple

3.1 At its meeting on 10 July 2015, the Authority received an update on the Strategic Priorities for 2015/16: Broads Plan Review, the Broads Landscape Partnership Bid, Hickling Broad Lake Enhancement Project, Promoting the Broads and Stakeholder Action Plan.

3.2 As part of the progress on the Stakeholder Action Plan and audit into Consultation Activity and Partnership provisions, the Authority received feedback on the most recent Parish Forum held at Ludham on 17 June and also reviewed the format of the forums generally. They considered that it was worth continuing with the interactive area based forums and also timing these around specific issues or

developments. Fourteen members have signed up to be associated with the four Parish Forum groups based on the Ranger Areas and this initiative is being progressed.

3.3 Members will recall that as part of the Stakeholder Action Plan, it was agreed to have a meeting with the Hire Boat Operators and this took place on 25 June 2015. The discussions covered a series of issues with three in particular being of concern. One related to Tolls and concerns over the level of the Multiplier and the second concentrated on the issue of waste disposal in light of the removal of local services; the third, a more general concern, to improve the level of engagement between the Hire Boat Federation and the Broads Authority.

3.4 In association with this and the Member Development Programme mentioned at 1.2 above, a Briefing and Workshop on Tolls has been arranged for 23 September 2015 starting at 10.00am. A workshop on Waste Disposal is due to be arranged for November. At the Authority's meeting on 10 July 2015, it was also suggested that Insight Track be engaged to carry out further analysis of survey results from the Private Boat Owners.

3.5 A workshop on the Broads Plan is arranged for 7 October 2015 and further details will be provided for Members in due course.

4 Network Rail Update

Contact Officers/Broads Plan Objective: Angie Leeper/ NA5.1

4.1 High level meetings are continuing on a bi-monthly basis, to discuss Network Rail's long term plans and input Broads Authority views. The consultation responses for the Anglia route study have not yet been published, neither is the final version yet available.

5 Hire Boat Code and Broads Authority Hire Boat Licensing

Contact Officer/Broads Plan Objective: Steve Birtles/ NA4.2

5.1 The development of hire boat code has been further delayed and is unlikely to be out for consultation until the turn of the year. This will have a knock on effect on the update to the Broads Authority licensing conditions for powered hire boats. It is envisaged that licensing conditions for powered hire boats will be reviewed during the spring of 2016 for implementation from April 2017.

6 Boat Safety Scheme Requirements Hire Boat

Contact Officer/Broads Plan Objective: Steve Birtles/ NA4.4

6.1 A consultation will begin in early September on proposed changes to the BSS requirements for Hire Boats. The Boat Safety Scheme will be carrying out the consultation on behalf of the Broads Authority and other navigation authorities.

The consultation will close mid-November and signposts to the consultation will appear soon on the Broads Authority Website.

7 Launch Fit Out Contract

Contact Officers/Broads Plan Objective: Adrian Vernon/ None

7.1 Expressions of interest have been advertised and received and a list compiled. Government tendering regulations have recently changed and once compliance has been verified the tender documents will be sent out with an anticipated commencement date for the contract of late September.

8 Navigation Patrolling and Performance Targets

Contact Officer/Broads Plan Objective: Adrian Vernon/NA4.3

8.1 The report of the significant use of powers by the rangers is displayed in Appendix 1 and reflects the busy period. The average navigation/countryside splits for three months are higher on the navigation side as would be expected but the overall figures since April are 67%/33%. The mooring inspection target compliance figure for the period is 97%.

8.2 The report detailing the cases dealt with at Magistrates Court are shown in Appendix 2.

9 Sunken and Abandoned Vessel Update

Contact Officer/Broads Plan Objective: Adrian Vernon/NA4

9.1 The sunken and abandoned update is contained in Appendix 3. One abandoned and semi-sunken vessel on the River Ant has been removed and disposed of since the last report.

10 Planning Enforcement Update

Contact Officer/Broads Plan Objective: Adrian Vernon and Cally Smith/None

10.1 Following queries raised by a member, it was agreed to provide regular updates on the position regarding relevant planning enforcement actions. These details are included at Appendix 4.

Background papers:	None
Author:	Sandra Becket / Esmeralda Guds
Date of report:	April 2015
Broads Plan Objectives:	Multiple
Appendices:	APPENDIX 1 –Report on the Significant Exercise of Powers by the Rangers during February – March 2015 APPENDIX 2 – Prosecution during November 2014 APPENDIX 3 – Report of Sunken and Abandoned Vessels APPENDIX 4– Planning Enforcement Update

Rangers Exercise of Powers Analysis *(Bracketed figures are running totals, April 2015 to July 2015)*								Date: MAY - JULY 2015
	Wroxham Launch	**Irstead Launch**	**Ludham Launch**	**Ludham 2 Launch**	**Norwich Launch**	**Hardley Launch**	**B.St.Peter Launch**	**Breydon Launch**
Launch Patrol Areas	Wroxham and Upper Bure	Ant	Hickling, P.Heigham, Upper Thurne & Womack	Lower Thurne, Lower Bure & South Walsham	Norwich and Upper Yare	Reedham, Chet & Middle Yare	Oulton Broad and Upper/Middle Waveney	Breydon Water, Lower Waveney and Yare
Verbal Warnings								
Care & Caution	**81** *(162)*	**2** *(6)*		**92** *(175)*		**1** *(2)*	**5** *(7)*	**10** *(16)*
Speed	**1,286** *(2626)*	**345** *(682)*	**332** *(566)*	**430** *(782)*	**123** *(193)*	**14** *(30)*	**77** *(99)*	**43** *(107)*
Tolls offences	**34** *(65)*	**47** *(105)*	**30** *(54)*	**109** *(208)*	**16** *(27)*	*(2)*	**3** *(5)*	**3** *(6)*
Other	**22** *(33)*	**21** *(39)*	**3** *(9)*	**82** *(143)*	**10** *(15)*	**33** *(69)*	**9** *(11)*	**3** *(5)*
Blue Book Warnings								
Care & Caution	**11** *(22)*	**2** *(3)*	**1** *(2)*	**1** *(2)*			*(1)*	**8** *(14)*
Speed	**37** *(70)*	**7** *(14)*	**7** *(12)*	**18** *(29)*	**1** *(1)*	**1** *(1)*	**6** *(10)*	**8** *(15)*
Other	**7** *(12)*	**2** *(5)*	**1** *(1)*	**3** *(6)*	**1** *(1)*	**1** *(3)*	**7** *(12)*	**2** *(4)*
Reports for Prosecutions		*(1)*						**4** *(8)*
Special Directions		**94** *(179)*					**172** *(311)*	
Toll Compliance Reports								
Non Payment	**71** *(141)*	**89** *(183)*	**3** *(7)*	**54** *(103)*	**93** *(165)*	*(4)*	**46** *(53)*	**43** *(86)*
Non Display	**3** *(4)*	**15** *(26)*	**1** *(3)*	**10** *(19)*			**32** *(40)*	
28 Day request for information	**1** *(2)*	**1** *(2)*	**2** *(4)*	**3** *(6)*			**2** *(2)*	
BSS Hazardous Boat Inspections			**1** *(1)*					
Enter Vessels Under BSS								
Launch Staffed (by Ranger)	**81** *(158)*	**50** *(95)*	**67** *(125)*	**61** *(121)*	**44** *(83)*	**43** *(76)*	**69** *(136)*	**86** *(171)*
Country Site Inspection Reports Percentage Compliance	**100%** *(100%)*	**100%** *(100%)*	(Combined figure)	**83%** *(83%)*	(Combined figure)	**100%** *(100%)*	**60%** *(60%)*	
Best Value Patrol Targets Percentage Compliance	**100%** *(100%)*	**84%** *(84%)*	**92%** *(92%)*	**91%** *(91%)*	**91%** *(91%)*	**100%** *(100%)*	**100%** *(100%)*	**76%** *(76%)*
Volunteer Patrols	**1** *(5)*	**10** *(21)*	**1** *(3)*	**1** *(4)*		**4** *(9)*	**3** *(7)*	
IRIS Reports	**55** *(99)*	**33** *(57)*	**21** *(40)*	**30** *(50)*	**34** *(60)*	**13** *(23)*	**33** *(59)*	**71** *(124)*
Broads Control Total Calls	**TOTAL**	**12,068** *(23,576)*		**Telephone**	**9,418** *(18,503)*	**VHF**	**2,650** *(5,073)*	

RANGER TEAM ACTIVITY

May 2015	Navigation Activity								Countryside Activity							
	Nav Patrol Launch	Nav Patrol Foot/Road	Incident Working	Admin - Navigation	Training (Navigation)	Escort	Moorings Maintenance	Bank/river work	Country Patrol	Country Maintenance	Admin - Country	Training (Countryside)	Equipment Maintenance	Tree/Ground work	Group Activities	Education/School Visit
Percentage Total	**31.07%**	**2.55%**	**1.12%**	**0.51%**	**3.90%**	**0.69%**	**0.96%**	**0.36%**	**1.97%**	**5.35%**	**0.37%**		**5.31%**	**0.37%**	**0.08%**	**0.53%**
Wroxham team	25%	38%	9%	2%	31%	31%	49%	74%	18%	20%	19%		18%			
Thurne team	20%	25%	13%	39%	24%	6%	33%	26%	23%	30%	77%		30%			50%
Yare team	11%	9%	2%	8%		15%	7%		52%	32%	4%		14%	46%	100%	50%
Waveney team	9%	17%	9%		7%	5%			1%	2%			6%	10%		
Breydon team	29%	5%	67%		17%	29%	8%			7%			24%	44%		
Control Officer																
	46%								10%							

Month Percentages	
Navigation	73%
Country	27%
Total	100%

Time Off not included

	General Support												Time Off			
	Broads Control	Travel Time	Activity Unknown	Training - Split	Meeting - Staff	Meeting - Public	Admin - Split	Admin - Volunteer	Training - (Volunteers)	Public Relations Event	Site Visit third party	Other Task	Time off in Lieu *(not accurate)*	Breaks *(not including un-notified breaks)*	Annual Leave	Sick
Percentage Total	**7.67%**	**2.67%**	**2.12%**	**1.94%**	**3.26%**	**0.30%**	**10.03%**		**0.10%**	**0.84%**	**1.26%**	**0.13%**	**0.66%**	**1.42%**	**6.74%**	**4.84%**
Wroxham team	3%	21%	30%	24%	24%	97%	18%					56%	64%	6%	28%	
Thurne team	6%	11%	28%	24%	24%	9%	18%		91%	12%	39%	44%		8%	13%	
Yare team		22%	5%	2%	7%		15%			41%	23%			34%	6%	57%
Waveney team	5%	13%	8%		5%		6%			15%			32%	2%	41%	
Breydon team	6%	24%	15%		7%		6%		9%	12%	22%				6%	
Control Officer	33%													22%		43%
	5%	3%	27%										14%			

Percentage with apportioned split	
Year to date (Apr - Mar)	
Navigation	70%
Country	30%
Total	100%

Time Off not included

Team percentages equal team contribution to activity

RANGER TEAM ACTIVITY

June 2015	Navigation Activity								Countryside Activity							
	Nav Patrol Launch	Nav Patrol Foot/Road	Incident Working	Admin - Navigation	Training (Navigation)	Escort	Moorings Maintenance	Bank work	Country Patrol	Country Maintenance	Admin - Country	Training (Countryside)	Equipment Maintnance	Tree/Ground work	Group Activities	Education/School Visit
Percentage Total	**27.28%**	**3.65%**	**0.87%**	**0.93%**	**1.79%**		**1.19%**	**0.63%**	**2.93%**	**5.54%**	**0.95%**		**6.59%**	**0.56%**	**0.48%**	**1.28%**
Wroxham team	21%	34%	16%	11%	26%		29%	28%	26%	21%	3%		24%		75%	15%
Thurne team	23%	13%	5%	7%	20%		25%		32%	13%	2%		27%			44%
Yare team	14%	6%	16%	24%	35%		10%		22%	53%	69%		19%	38%	25%	12%
Waveney team	13%	16%	14%	25%				24%	7%	6%			10%	62%	37%	15%
Breydon team	22%	14%	33%	33%	12%		28%	24%	2%				18%			15%
Control Officer			3%													
	42%								14%							

Month Percentages	
Navigation	73%
Country	27%
Total	100%

Time Off not included

	General Support												Time Off			
	Broads Control	Travel Time	Activity Unknown	Training - Split	Meeting - Staff	Meeting - Public	Admin - Split	Admin - Volunteer	Training - (Volunteers)	Public Relations Event	Site Visit third party	Other Task	Time off in Lieu (not accurate)	Breaks (not including un-notified breaks)	Annual Leave	Sick
Percentage Total	**6.93%**	**4.04%**	**3.69%**	**1.47%**	**5.23%**	**0.47%**	**9.24%**	**0.83%**		**1.92%**	**1.19%**	**0.38%**	**0.74%**	**1.42%**	**7.77%**	
Wroxham team		23%	14%		21%	27%	10%			12%	15%	5%	60%	11%	30%	
Thurne team	4%	17%	18%		17%	10%	16%	1%		44%	30%	16%		4%	19%	
Yare team		14%	15%	85%	20%	27%	11%			7%	5%	20%		11%	24%	
Waveney team		25%	7%		8%		12%			10%	9%	10%	37%	4%		
Breydon team	2%	14%	3%		14%	10%	10%			22%	15%				5%	
Control Officer	68%		0%											40%		
	6%	4%	31%										8%			

Percentage with apportioned split	
Year to date (Apr - Mar)	
Navigation	67%
Country	33%
Total	100%

Time Off not included

Team percentages equal team contribution to activity

RANGER TEAM ACTIVITY

July 2015	Navigation Activity								Countryside Activity							
	Nav Patrol Launch	Nav Patrol Foot/Road	Incident Working	Admin - Navigation	Training (Navigation)	Escort	Moorings Maintenance	Bank work	Country Patrol	Country Maintenance	Admin - Country	Training (Countryside)	Equipment Maintnance	Tree/Ground work	Group Activities	Education/School Visit
Percentage Total	**29.85%**	**3.77%**	**1.40%**	**1.19%**	**3.36%**	**0.19%**	**0.73%**	**0.32%**	**1.76%**	**5.95%**	**0.42%**	**1.32%**	**6.11%**	**0.89%**	**0.28%**	**0.29%**
Wroxham team	20%	10%	16%	16%	10%		55%		24%	18%	64%		16%		90%	
Thurne team	23%	6%	30%	31%	16%	100%	13%	10%	22%	23%	19%		27%			
Yare team	15%	20%	11%	13%	43%		9%		23%	50%		66%	26%	52%	10%	53%
Waveney team	11%	10%	18%	4%	7%		1%		10%	1%			13%	35%		47%
Breydon team	23%	19%	19%	24%	7%		19%	90%		4%		34%	15%	13%		
Control Officer	1%															
	43%								12%							

Month Percentages	
Navigation	72%
Country	28%
Total	100%

Time Off not included

	General Support												Time Off			
	Broads Control	Travel Time	Activity Unknown	Training - Split	Meeting - Staff	Meeting - Public	Admin - Split	Admin - Volunteer	Training - (Volunteers)	Public Relations Event	Site Visit third party	Other Task	Time off in Lieu (not accurate)	Breaks (not including un-notified breaks)	Annual Leave	Sick
Percentage Total	**7.03%**	**4.33%**	**4.04%**	**0.07%**	**0.41%**	**0.86%**	**6.09%**		**0.08%**	**1.30%**	**0.65%**	**0.95%**	**1.64%**	**1.34%**	**12.52%**	**0.89%**
Wroxham team	4%	22%	17%		21%	16%	13%			17%	9%	16%	8%	9%	34%	48%
Thurne team	3%	12%	15%	100%		9%	11%		100%	3%	46%	15%	40%	8%	21%	
Yare team	3%	15%	5%		36%	4%	18%			60%	35%	20%		19%	9%	3%
Waveney team		17%	8%		18%	2%	13%				10%	13%	13%	1%	5%	48%
Breydon team	4%	19%	6%			2%	4%			11%		13%	40%	3%	10%	
Control Officer	71%													43%		
	7%	4%	21%										16%			

Percentage with apportioned split	
Year to date (Apr - Mar)	
Navigation	67%
Country	33%
Total	100%

Time Off not included

Team percentages equal team contribution to activity

APPENDIX 2

Report of prosecutions dealt with in court during June and July 2015

Place	Defendant	Offence	Magistrates Court	Result
River Ant	K. Phillips	(1) No Tolls (2) No Tolls	Norwich	No fine Costs awarded to BA £75 Compensation £441
River Waveney	B.Gordon	(1) No Tolls	Lowestoft	£100 fine Costs awarded £50 Compensation £240.58
River Yare	K.Kesper	(1) No Tolls (2) No tolls	Norwich	No Fine Costs awarded £75 Compensation £454.75
River Ant	J. Emmerson	(1) No insurance	Norwich	No Fine Compensation £150.

APPENDIX 3

Sunken and Abandoned Vessels

Description	Location found	Action	Abandoned /Sunken Notice Affixed	Result
Sunken and abandoned wooden sailing cruiser	River Yare. Trowse	No known owner.	Yes	Vessel not raised by owner. Deadline expired and BA team will raise and remove when the programme allows
Sunken and abandoned aft cockpit cruiser hull	River Yare. New Cut Thorpe	No known owner found.	Yes	Deadline expired and BA team will raise and remove when the programme allows
Sunken small dinghy	River Wensum near Coslany bridge	Recently changed owner enquiries in hand to establish new owner.	No	Awaiting result of enquiries
Sunken cruiser	River Yare Old River Thorpe.	Vessel sunk at owners moorings	Not yet	Not affecting the navigation owner will raise in due course. Owner will be given one month before notice issued
Sunken wooden cruiser	River Yare Norwich.	Vessel sunk at moorings owner to raise.	Not yet	Not affecting the navigation owner will raise in due course. Owner will be given one month before notice issued

APPENDIX 4

Enforcement Update

This table shows the updates on enforcement matters relating to Navigation matters currently under consideration since the last Navigation Committee on 4 June 2015

Committee Date	Location	Infringement	Action taken and current situation
5 December 2008 5 March 2010 16 July 2010	"Thorpe Island Marina" West Side of Thorpe Island Norwich (Former Jenner's Basin)	Unauthorised development	• Enforcement Notices served on 7 November 2011 on landowner, third party with legal interest and all occupiers. Various compliance dates from 12 December 2011 • Appeal lodged on 6 December 2011 • Public Inquiry took place on 1 and 2 May 2012 • Decision received on 15 June 2012. Inspector varied and upheld the Enforcement Notice in respect of removal of pontoons, storage container and engines but allowed the mooring of up to 12 boats only, subject to provision and implementation of landscaping and other schemes, strict compliance with conditions and no residential moorings. • Challenge to decision filed in High Court 12 July 2012 • High Court date set for 26 June 2013 • Planning Inspectorate reviewed appeal decision and agreed it was flawed and therefore to be quashed • "Consent Order" has been lodged with the Courts by Inspectorate • Appeal being reconsidered –Planning Inspector Site Visit 28 January 2014 • Hearing took place on 8 July 2014 • **Appeal allowed in part and dismissed in part on 20 October** 2014. Inspector determined that the original

Committee Date	Location	Infringement	Action taken and current situation
			planning permission had been abandoned, but granted planning permission for 25 vessels, subject to conditions (Similar to previous decision above except in terms of vessel numbers). • Planning Contravention Notices issued to investigate outstanding breaches on site. • Challenge to the Inspector's Decision filed in the High Courts on 28 November 2014 • Acknowledgement of Service filed 16 December 2014. • Section 73 application submitted to the Authority to amend 19 of 20 conditions on the permission granted by the Inspectorate. Application not validated. • Appeal against non-determination submitted to PINS in respect of Section 73 application. Not accepted. • Section 288 challenge submitted in February 2015. • High Court Hearing on 19 May 2015 • Decision handed down on Thursday 6 August 2015. Judge upheld the previous Inspector's decision and dismissed all claims by the Appellant. Thorpe-Island-Report-on-High-Court-Judgement