

Breydon Water and Water Ski Zone Designation
Report by Head of Safety Management

Summary: This report sets out the results of the recent consultation on a proposal to designate a water skiing zone on Breydon Water and progress made on the proposed monitoring methodology. Members' views are sought on the responses to the consultation

Recommendations:

- (i) That members designate a zone for water skiing on Breydon Water for a trial period of at least one year commencing from 1 April 2013.
- (ii) That the proposed zone is to be used for water skiing and a form of wakeboarding including/or involving manoeuvres and momentarily leaving the surface of the water for the trial period of one year.

1 Background

- 1.1 There are no speed restrictions on Breydon Water and, whilst it is not particularly popular, it is an area where waterskiing has historically taken place. Following the transfer of responsibility for navigation to the Authority, the agreed process has been followed to consider the possible designation of a zone where waterskiing could take place.
- 1.2 The Authority has previously designated ten zones on the Rivers Yare and Waveney for waterskiing and the process and procedure are well developed.
- 1.3 This involved convening a meeting of the Water Ski Review Panel on 31 July 2012 when the risk assessments and proposed management options were considered. Their recommendations to the Authority are set out in section 3 of Appendix E.
- 1.4 Further to the recommendations of the Water Ski Review Panel additional requirements were reported to the Authority relating to the Habitats Directive and a proposal to trial the water ski zone for a period not less than one year was supported.
- 1.5 The Authority resolved at its meeting on the 23 November 2012 to consult on a proposal to designate a zone on Breydon Water for the purposes of a water skiing and wakeboarding for a trial period of at least one year in order to facilitate a monitoring programme.

2 Consultation

- 2.1 The Broads Authority Act 2009 includes provisions enabling the Authority to regulate waterskiing and wakeboarding. They include a power to designate, to amend or revoke zones within the Authority's navigation area where these activities will be permitted.
- 2.2 Section 26(5)(a) of the 2009 Act requires the Authority, before it passes the proposed resolution, to consult:-
- (a) such persons who own or occupy residential property, the amenity of which appears to the Authority likely to be affected by the proposed resolution; and
 - (b) Natural England and such organisations as appear to the Authority to represent persons likely to be affected by it.
- 2.3 A public consultation ran from 27 November 2012 until the 9 January 2013.
- 2.4 As set out in the Broads Authority Act 2009 and legal agreement with waterskiing bodies, consultation required includes:

Navigation Committee	11 October 2012
Broads Forum	22 November 2012
Broads Authority – to determine to go to Public consultation	23 November 2012
Consultation with Natural England, any residential occupiers and other affected bodies together with a public notice in the local press (minimum of 28 days)	27 November 2012 – 9 January 2013
Determination by the Broads Authority	18 January 2013
Start of new zone (if agreed and subject to monitoring being in place by this time)	April 2013

3 Consultation Findings

- 3.1 The Boating Safety Management Group and the Navigation Committee were consulted on the proposed water ski zone and the restriction of activity around the timing low water event and were content with the proposals. The Broads Forum were also consulted and were largely supportive of the approach the proposals from the Authority.
- 3.2 The Authority consulted on the proposals to designate a water ski zone on Breydon Water for a trial period of one year. At the time of writing, three consultation responses have been received and are set out in Appendix A. There is little opposition to the proposal however an update will be presented to the meeting of Authority as the consultation does not close until 9 January 2013.
- 3.3 The Navigation Committee and Broads Forum were consulted and it was felt that the proposal should proceed.

4 Next Steps

- 4.1 The requirements of the monitoring programme will be set out and agreed with Natural England. A meeting has been scheduled for the 17 January and a verbal update will be given to the Authority at the meeting on progress to date.
- 4.2 Following the trial the Water Ski Review Panel are to be asked to review the outcomes and prepare recommendations for the future management of water skiing on Breydon Water.
- 4.3 The Panel's findings will then be brought back to the Authority for consideration.

Background papers: Broads Authority Report on Transfer of Breydon Water 13 July 2012

Author: Steve Birtles.
Date of report: 3 January 2013

Broads Plan Objectives: NA4.1, NA5

Appendices:
APPENDIX A – Consultation responses
APPENDIX B – Consultation schedule
APPENDIX C – List of consultees
APPENDIX D – Breydon Water map
APPENDIX E – Report to Broads Authority 23 November 2012 “Breydon Water and Water Ski Zone Designation”

APPENDIX A

Summary of Consultation Responses			
Respondent	Type	Response	BA Proposed Response
Rachel Tallon British Water Ski and Wakeboard	Organisation	and welcome the forward thinking approach taken by the review panel and the Broads Authority	No response required
Julian Barnwell Eastern Rivers Ski Club	Organisation	Fully supportive of the proposals to designate a water ski zone on Breydon Water	
Gillian McArthur	Individual	<p>I wish to raise concerns about this proposed use as conflicting with the area's status as a SPA, RAMSAR and SSSI site. During the summer, international important populations of Avocet, Black-tailed Godwit are summer migrants and now feed with minimal disturbance on the proposed area. Large creches of baby Shelduck also assemble here.</p> <p>I understand the need for all kinds of leisure use to be incorporated within the broads but the conservation of the summer feeding grounds important in a European, not just locally in this area outweigh the enjoyment of a sport enjoyed by relatively few people.</p>	Water Skiing on Breydon water has taken place for many years. The proposal is for a trial period to allow the Authority to conduct a monitoring programme. This programme will inform an appropriate assessment required by the habitats directive and will specifically deal with any mitigation measures, if needed, to ensure the status of the protected features of the site.

The Schedule

**River Yare, Breydon Water
Stretch of Water**

Zone

An area enclosed by notional lines drawn across the river Yare between grid references TG504076 and TG504075, TG486064 and TG480063, being a run of 2695m and inset 10m each side from the channel marker posts .

Times

Between 2 hours after and 0.5 hrs before low water of the predicted astronomical tide at Great Yarmouth yacht station on any day, between sunrise and sunset.

List of Consultees

Persons who own or occupy residential property adjacent to the Water Ski Zones.

Natural England

Somerleyton Hall

RSPB

Eastern Rivers Water Ski Club

Norfolk & Suffolk Boating Association

Country Landowners Association

BHBF

BASG

Amateur Rowing Association

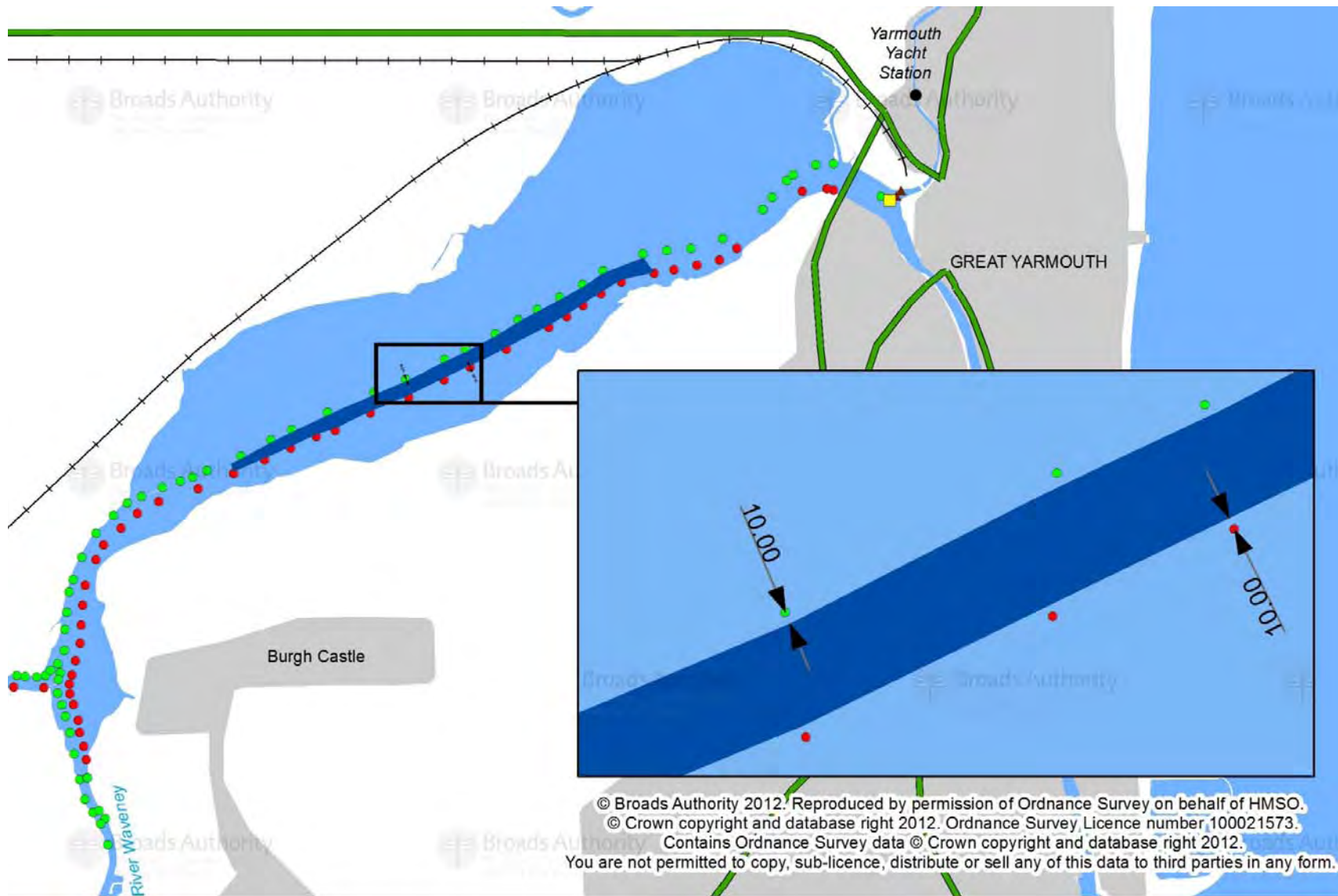
British Canoe Union

Broads Society

Inland Waterways Association

British Water Ski and Wakeboard

Members of the Breydon Water User Group



Broads Authority
23 November 2012
Agenda Item No 14

Breydon Water and Water Ski Zone Designation
Report by Head of Safety Management and Senior Ecologist

Summary: This report sets out recent draft risk assessments for waterskiing on Breydon Water and the outcome of the recent Water Ski Stakeholder Review Panel.

Members' views are sought on the draft risk assessments, and the Water Ski Review Panel's recommendation to the Authority and the proposed management options detailed in the Habitats Regulations Assessment.

Recommendations:

- (i) That members endorse the risk assessments and Appropriate Assessment concluded in respect of waterskiing on Breydon Water.
- (ii) That members approve the advertising of a Public Notice for consultation on the proposed designation, as required by the Broads Act 2009 Section 26.
- (iii) That the consultation specifies the location and time restrictions as set out in Section 3.1 and also includes the seasonal restriction as set out in Section 4.10 (b).

1 Background

- 1.1 There are no speed restrictions on Breydon Water and, while it is not particularly popular, it is an area where waterskiing has historically taken place. Following the transfer of responsibility for navigation to the Authority, the agreed process has been followed to consider the possible designation of a zone where water skiing could take place.
- 1.2 The Authority has previously designated ten zones on the Rivers Yare and Waveney for waterskiing and the process and procedure are well developed.
- 1.3 This involved convening a meeting of the Water Ski Review Panel on 31 July 2012 when the risk assessments and proposed management options were considered.

2 Risk Assessment and Management Options

- 2.1 Risk Assessments have been completed using the same format that has been previously applied to the assessments of water ski zones. The Assessments for the entire area of Breydon Water and a proposed water ski zone are set out in Appendices 1 and 2 and a summary table is set out in Appendix 3.
- 2.2 The risk assessment concluded on safety grounds that using the entirety of Breydon Water would be inappropriate for waterskiing. This is primarily because of the number of fixed hazards in the form of navigation marker posts used for defining the channel, see Appendix 4.
- 2.3 To mitigate these issues it is proposed to define a smaller zone in which waterskiing could safely take place. The proposed zone is set out in Appendix 5.
- 2.4 The proposed zone location deals with a number of safety issues:
- Removes any bends from the water ski area and therefore improves visibility.
 - Takes skiers away from the Dickey Works, an area where there are stakes just below the surface just outside of the marked channel. There was a concern that, if a skier drifted out of the channel in this area, there would be little chance of the tow boat gaining safe access for recovery.
 - Isolates the issue of fixed hazards as the zone is located 10m inside of the channel marker posts.
 - RNLI lifeboat station is close by in Great Yarmouth and emergency access to the site would be provided in this way.
- 2.5 The issue of potential conflict with other users has also been considered. The majority of boat traffic on Breydon is usually focussed around the states of the tide as users are encouraged to cross Breydon at low/slack water so that passage through Great Yarmouth can be as safe as possible due to the otherwise strong tidal currents in the area; also low water gives greater clearance when passing under the low bridges in Great Yarmouth.
- 2.6 Over the recent years the Authority has engaged with users to promote this safe passage time, a leaflet has been produced which is available to all and is placed in the hire boats skippers manuals for hirers information.
- 2.7 The Authority carries out a boat census every four years in August and one of the census points is near the Yacht Station in Great Yarmouth (GYYS). Appendix 6 shows the results of the census in 2006 and 2010, the data suggests that there seemed to be little regard to the state of the tide as boat movements were significantly less focussed around low water.
- 2.8 To help inform the Panel, an additional traffic survey was held over the week commencing 9 July 2012 the results of which are shown on the graph in Appendix 7. It can be seen from this survey that boats are now transiting

Breydon at or just after low water in accordance with the advice of the Authority.

- 2.9 In August another traffic survey was completed to help inform members. The results of which are shown in Appendix 8. This survey suggests a slightly different story with boats transiting Breydon a little more randomly although the majority of boat traffic was generally focused around the low water event.

3 Water Ski Review Panel Recommendations

- 3.1 Following the review of risk assessments and the proposed management options, the Panel recommended that:
- (i) the Authority considers designating an area where waterskiing could take place on Breydon Water. The geographic limits of which are from the centre of the navigation channel at grid reference TG480063 to grid reference TG504075, the extents of the proposed zone from the east end of the water at TG504076, TG504075 to the western end of the water at TG486064, TG480063. The proposed zone is graphically represented in Appendix 5.
 - (ii) after considering the information relating to traffic movements on Breydon, the Panel also recommended that waterskiing should not take place between 0.5 hours before and 2 hours after predicted low water at Great Yarmouth Yacht Station. No other time restrictions were suggested.
 - (iii) The Panel also concluded that the existing permit requirements and permit conditions should be applied in full to the proposed Breydon water ski zone.

4 Habitat Regulations Assessment

- 4.1 Alongside consideration of the safety implications for any of these activities, and as part of making any decisions about the management of the area, the Broads Authority must also have regard to the protection given to Breydon Water as a protected wildlife site and its designated as such under both UK and International legislation (as a Site of Special Scientific Interest, Special Protection Area and Ramsar site) and be supported by the necessary environmental information such as required Habitat Regulations Assessment under the EU Habitats Directive. Natural England's remit is to advise on these designations and the implications for activities on this site.
- 4.2 The SPA, SSSI and Ramsar citations all list breeding common tern and wintering waterfowl as the interest features. Many of these species are of conservation concern listed on Annex I of the Birds Directive (BTG Annex II) and Schedule 1 of the Wildlife and Countryside Act.
- 4.3 Existing activities which have historically taken place on Breydon need not be considered during this process but any new policy such as the designation of

an area for waterskiing must be assessed to determine if a full Appropriate Assessment is required.

- 4.4 Officers have concluded that, because of the special features associated with the site namely over wintering birds, the Authority should carry out an Appropriate Assessment and submit this to Natural England for consideration.
- 4.5 In preparing the Habitat Regulations Assessment officers have undertaken an initial scoping assessment followed by an appropriate assessment. These have taken into consideration advice from Natural England set out in its document "Breydon Water European marine site, English Nature's advice given under Regulation 33(2) of the Conservation (Natural Habitats & c.) Regulations 1994" published in 2001, as well as consulting with the following since July to gain evidence on bird numbers and likely and observed disturbance (Natural England, RSPB, British Trust for Ornithology, local naturalists and expert researchers) and specific advice on any proposed waterskiing management options.
- 4.6 In the document above Natural England state in relation to waterskiing the *"further investigation is needed to assess the impact of these activities on the birds at the site. However, it is recognised that such activities as waterskiing reach their peak during the summer months and are therefore unlikely to be an issue in relation to the wintering wildfowl and wader assemblages. However, at this time there may be some impact on the population of common tern, either in terms of disturbance while feeding or disturbance at breeding sites."*
- 4.7 The Habitats Directive states that consenting bodies, the Broads Authority in this case for Breydon Water, must take a precautionary approach to ensure that there is no adverse effect on integrity of the site and the wildlife it is designated for.
- 4.8 Monitoring bird disturbance from waterskiing and informing the Habitat Regulations Assessment with specific data may be a preferred method, however, a monitoring and modelling scheme would be extremely costly and due to the many influences which may have effect on bird disturbance, such data may not deliver definitive findings that would be able to prove no adverse effect of the activity of waterskiing on the SPA features (bird populations) for which Breydon is internationally important.
- 4.9 Officers propose that taking a pragmatic and precautionary approach would be preferable and the Habitat Regulations Assessment have proposed that waterskiing can only take place between March and October. Natural England agree that this approach is acceptable as there should not be any adverse impacts to the interest features of Breydon Water SSSI, SPA and Ramsar sites (see Appendix 9).
- 4.10 The options available to the Authority are therefore:

- (a) to commission a two phase water use and bird monitoring survey and modelling to then inform a revised Appropriate Assessment. This will include assessment of:

Phase 1

- current patterns of water use and activities;
- how will this be changed by mitigation;
- how do birds respond to human activities; and
- the link between behavioural responses and population consequences.

Phase 2

- the use of modelling to predict whether current and future water use are likely to be reducing the overwinter survival and body condition of birds.

- (b) To approve the approach of limiting the activity of waterskiing to between March to October as set out in the current Habitat Regulations Assessment which is supported by Natural England.

4.11 As this report was being finalised the RSPB informed the Authority that further bird data for Breydon has been identified which has not as yet been provided to the Authority. Apparently this may show that internationally significant populations of birds (avocet and black-tailed godwit) are using the estuary throughout the majority of the summer months. If so this may have a bearing on the Habitats Regulations Assessment. Officers will update members at the meeting on this issue and its implications.

5 Consultation and Timescale

- 5.1 The Boating Safety Management Group and the Navigation Committee were consulted on the proposed water ski zone and the restriction of activity around the timing low water event and were content with the proposals.
- 5.2 The Authority's views are therefore sought on the proposal to designate a waterskiing zone on Breydon Water as detailed above and the proposed management options in relation to the outputs from the Appropriate Assessment.
- 5.3 As set out in the Broads Authority Act 2009 and legal agreement with waterskiing bodies, consultation required includes:

Navigation Committee	11 October 2012
Broads Forum	22 November 2012
Broads Authority – to determine to go to Public consultation	23 November 2012
Consultation with Natural England, any residential occupiers and other affected bodies together with a public notice in the local press (minimum of 28 days)	
Determination by the Broads Authority	18 January 2012

Start of new zone (if agreed)	April 2013
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6 Water Ski and Wakeboard Trial Review

- 6.1 At the March 2012 Broads Authority meeting, following a consultation process, the Authority agreed to extend the trial of wakeboarding for a further year, and also to include zone 1 on the River Waveney (W1), with a review to be conducted in November 2012.
- 6.2 The Water Ski Review Panel is meeting on 22 November 2012, and will receive feedback from Rangers, a report of level of activity and any complaints. The outcome of the discussions will be reported verbally to the Broads Forum and both will be reported to the Authority.
- 6.3 The agenda for the Review meeting also includes proposals for variation of times on the River Waveney.
- 6.4 Members' views will be sought on any proposals, and approval will be sought for any public consultation should variations to zones/ times be suggested.

Background papers: Broads Authority Report on Transfer of Breydon Water 13 July 2012

Author: Steve Birtles. Andrea Kelly
Date of report: 30 October 2012

Broads Plan Objectives: NA4.1, NA5

Appendices:

- APPENDIX 1 - Risk Assessment of Waterskiing on the Breydon Water entire area
- APPENDIX 2 - Risk Assessment of Waterskiing on proposed zone
- APPENDIX 3 - Summary Table of Risk Assessments
- APPENDIX 4 - Map of Breydon Water
- APPENDIX 5 - Map of Proposed Water Ski Area
- APPENDIX 6 - Graph of Boat Census results
- APPENDIX 7 - Graph of traffic survey July 2012
- APPENDIX 8 - Graph of Traffic Survey Aug 2012
- APPENDIX 9 – Breydon Water Appropriate Assessment

Risk Assessment for Waterskiing

Area Breydon Water (from Breydon Bridge to Turn Tide Jetty)

Width of Channel

Minimum width of Channel	Maximum width of Channel	Average width over run
65m	125m	81m

Nature of Bank

Reed	Engineering	Incline
No	Mixture of natural salt flats and engineered flood defence	Gradual
Evidence of erosion	Make up of bank	Height of bank
No	Extensive mud flats before bank	<2m

Shelter (Percentage)

Trees	Hills	Structures
0	0	Lay by Jetty near Bridge

Bends

Number of bends	Visibility on Bends	Visibility on Bends
4	Good <input type="checkbox"/> Y <input type="checkbox"/>	<input type="checkbox"/>

Hazards

FIXED Hazards	MOVABLE Hazards
Nature of hazard __Navigation Marker Posts__ Meterage _____ Entire Length of Area on both sides of the channel Nature of hazard _____ Meterage _____ Nature of hazard _____	Nature of hazard: Nature of hazard _____ Meterage _____ Nature of hazard _____ Meterage _____

APPENDIX 1

Safe Areas for Skiers bank access	Access areas for emergency assistance
Number <input type="text" value="0"/>	Number <input type="text" value="0"/>

Proximity to Dykes (navigable) joining river	
Number <input type="text" value="0"/>	Potential Traffic Density <input type="text" value="40%"/>

Car Parking/Trailer Facilities

Car Parking		Slipway facilities
<input type="radio"/> No	Number <input type="text" value="0"/>	<input type="radio"/> No <input type="text" value="1"/>

Signage

Obstructions	Number in ski run	Clarity
No Signage		

Other comments

Area unsuitable for waterskiing due to the number of fixed hazards (Navigation Marker Posts) and possible potential for conflict with other boat users which may be focussed around Low Water as boats are recommended to transit Breydon at this time.

Date 21 June 2012 Completed by S Birtles / Julian Barnwell ERSC

Risk Assessment for Waterskiing

Area Breydon Water (proposed Water Ski Zone) Length 2592m

Width of Channel

Minimum width of Channel	Maximum width of Channel	Average width over run
50m	103m	83m

Nature of Bank

Reed	Engineering	Incline
No	Mixture of natural salt flats and engineered flood defence	Gradual
Evidence of erosion	Make up of bank	Height of bank
No	Extensive mud flats before bank	<2m

Shelter (Percentage)

Trees	Hills	Structures
0	0	0

Bends

Number of bends	Visibility on Bends	Visibility on Bends
1	Good <input type="checkbox"/> Y	<input type="checkbox"/>

Hazards

FIXED Hazards	MOVABLE Hazards
Nature of hazard ___ _ _0	Nature of hazard:
Meterage _____	Nature of hazard _____
Nature of hazard _____	Meterage _____
Meterage _____	Nature of hazard _____
Nature of hazard _____	Meterage _____

APPENDIX 2

Safe Areas for Skiers bank access	Access areas for emergency assistance
Number <input type="text" value="0"/>	Number <input type="text" value="0"/>

Proximity to Dykes (navigable) joining river	
Number <input type="text" value="0"/>	Potential Traffic Density <input type="text" value="20%"/>

Car Parking/Trailer Facilities

Car Parking		Slipway facilities
<input type="radio"/> No	Number <input type="text" value="0"/>	<input type="radio"/> No <input type="text" value="1"/>

Signage

Obstructions	Number in ski run	Clarity
No Signage		

Other comments

Area suitable for waterskiing, with control measures set out below
 Zone to be 10m inside navigation posts
 Signage to be erected
 Water skiers subject to permit conditions
 Restrict usage of the zone around low water to reduce potential conflict with other river users
 Boats Checked for Wash and sound, annual steering checks
 All Ski Boat Drivers to have SBDA award etc

Date 21 June 2012 Completed by S Birtles / Julian Barnwell ERSC

Summary Table following Risk Assessments carried out in 2012

	BREYDON Water	BREYDON Water Ski Area with proposed mitigation measures in place
NATURE OF BANK	5	1
SHELTER	2	2
BENDS	2	0.5
FIXED HAZARDS	5	0
POTENTIAL FOR CONFLICT	2	1
MINIMUM WIDTH OF RUN	1	2
ROAD ACCESS FOR EMERGENCY SERVICES	3	3
TOTALS	21	9.5

Maximum Score before Ski Run/Area becomes unsafe is 15.

Proposed Mitigation measures:

- a) Geographic limits of a zone
- b) Waterskiing not allowed at 0.5 hours before and 2 hours after predicted low water at Gt Yarmouth Yacht Station to reduce potential for conflict
- c) Use of Zone subject to permit conditions.

Criteria Used for Risk Factors

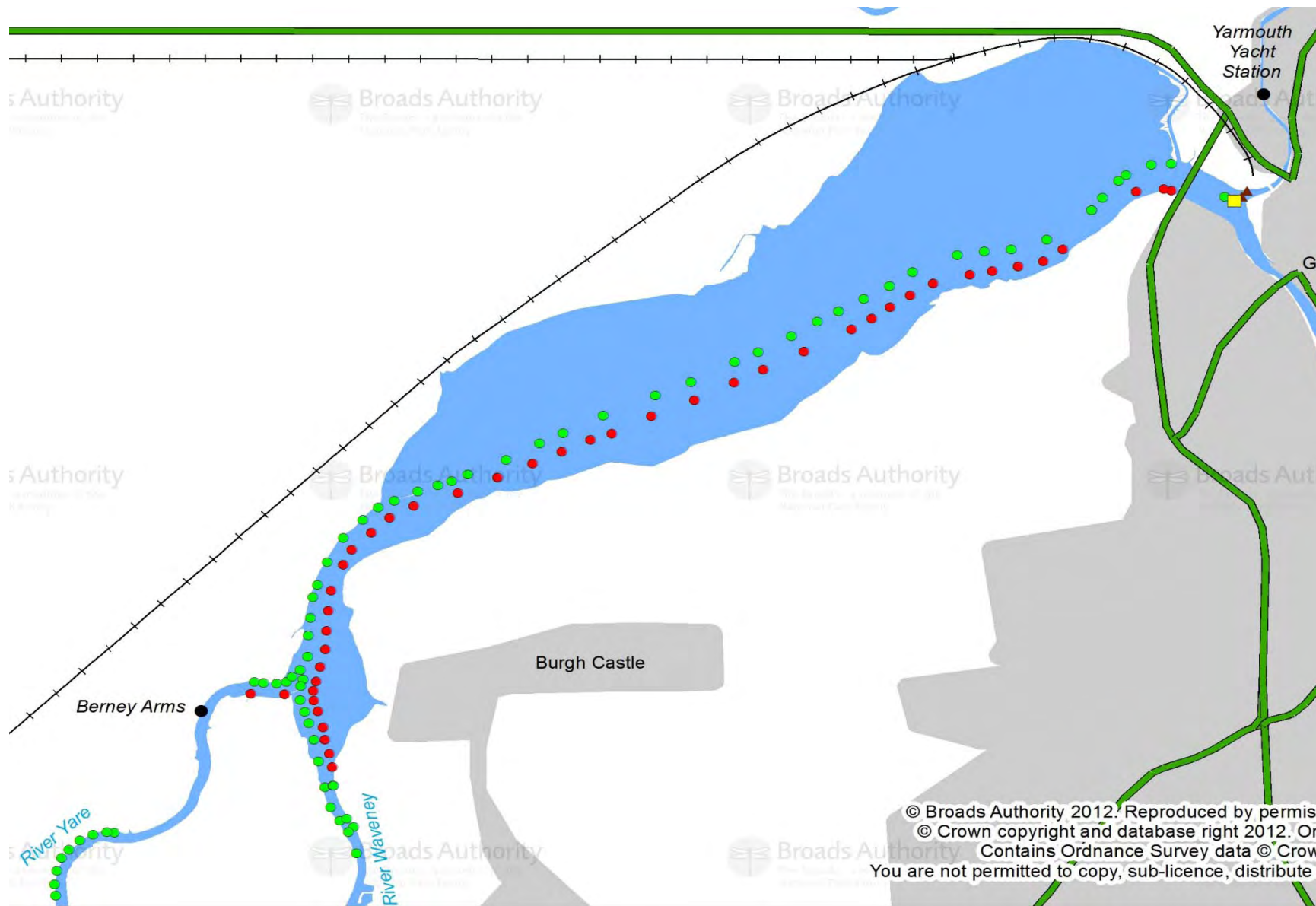
Width of River:	> 70m =	1
	< 60m =	2
	< 40m =	3
	< 30m =	4
	< 20m =	5
Bank Engineering:	Just Reeds	1
	Reeds + Engineering < 50m	2
	Reeds + Engineering > 50m	3
	Reeds + Engineering > 100m	4
	Reeds + Engineering > 300m	5
Shelter:	50-100% Trees	1
	<50% Trees	2
Fixed Hazards	1-10	1
	11-20	2
	21-40	3
	41-60	4
	61+	5
No. of Bends	1	1
	2	2
	3	3
	4	4
	5	5

Note: If visibility is good on bends risk factor to be reduced by 50%

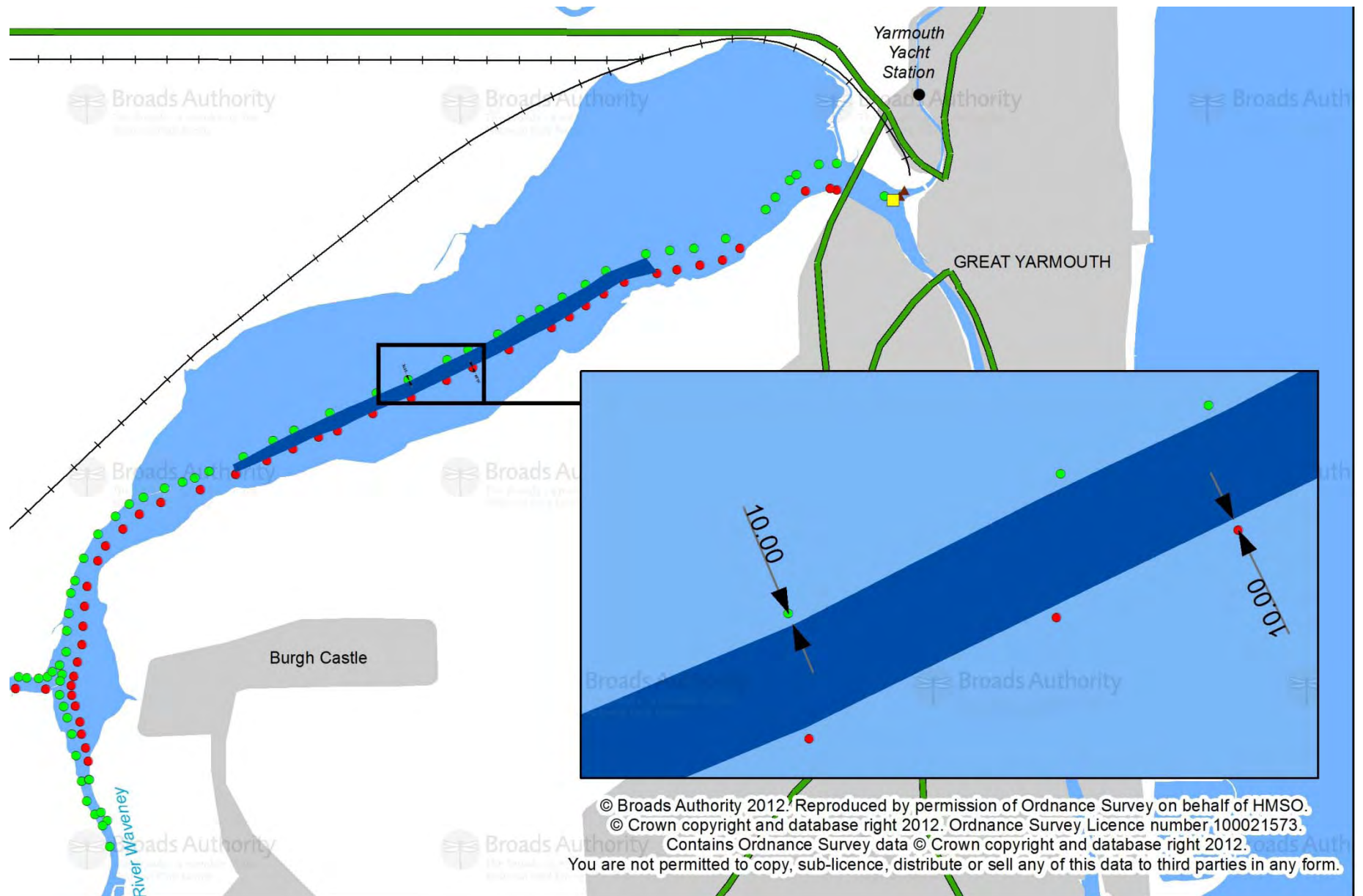
Potential Conflict with other users	<20%	1
	<40%	2
	<60%	3
	<80%	4
	>81%	5
Access for emergency vehicles	Yes	0
	No	3

Weighting of Risk Factor**Potential Risk To Human Health**

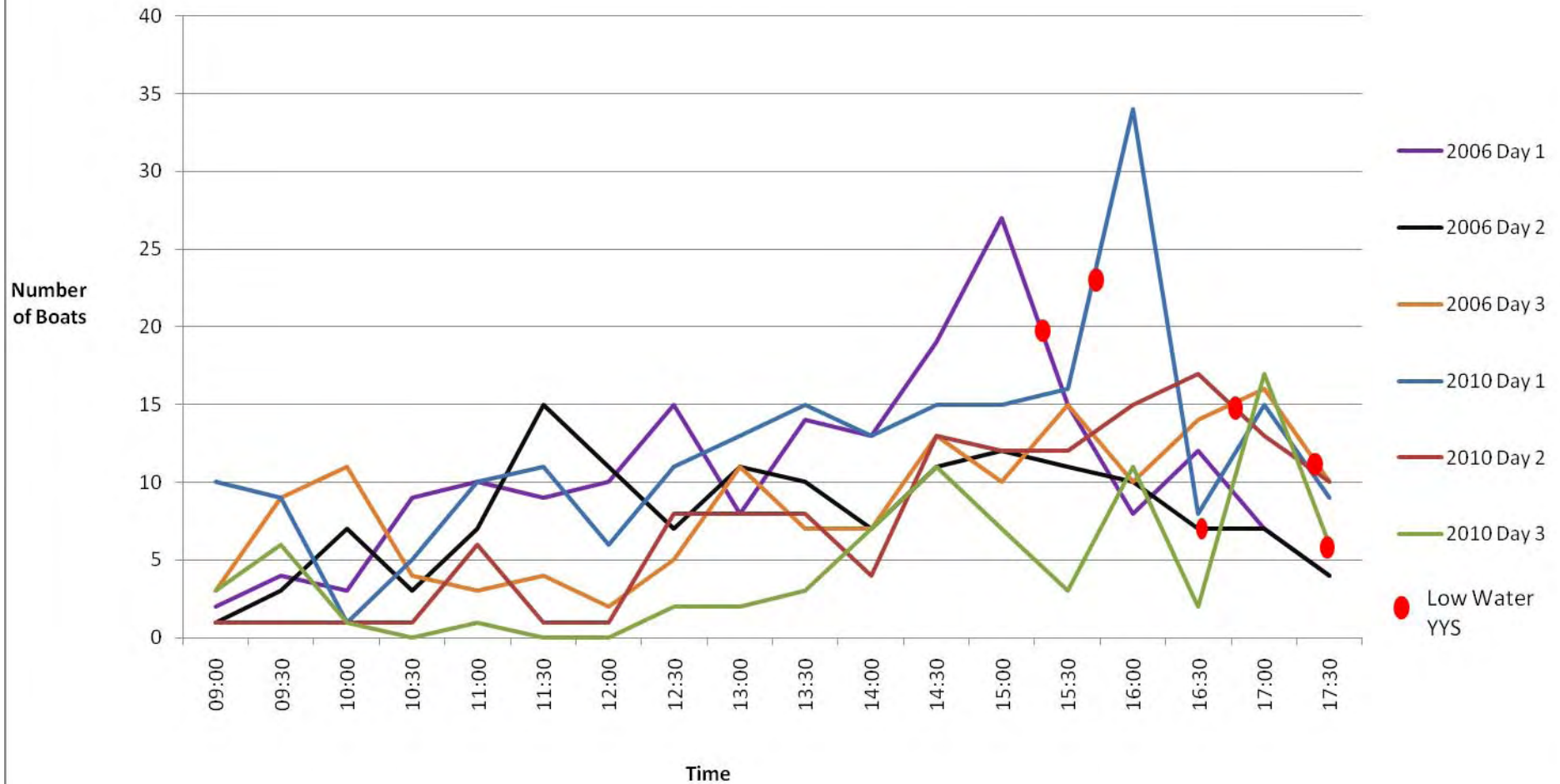
1. Negligible – Insignificant
2. Slight – Minor cuts and scratches
3. Moderate – Lacerations, broken small bones, short term illness
4. Severe – Major Injuries, limb loss, long term ill health
5. Extreme – Possibility of Death, no recovery.

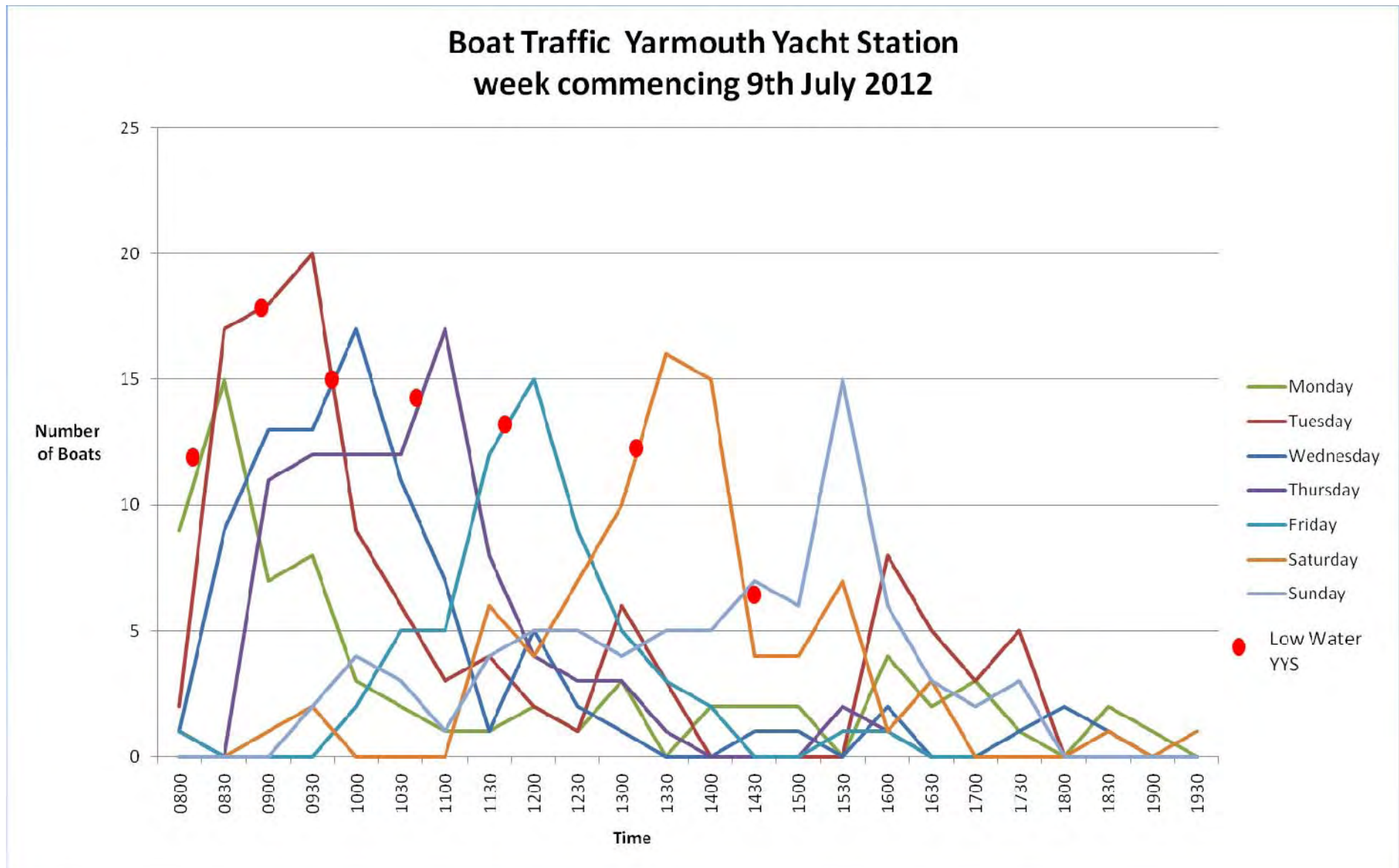


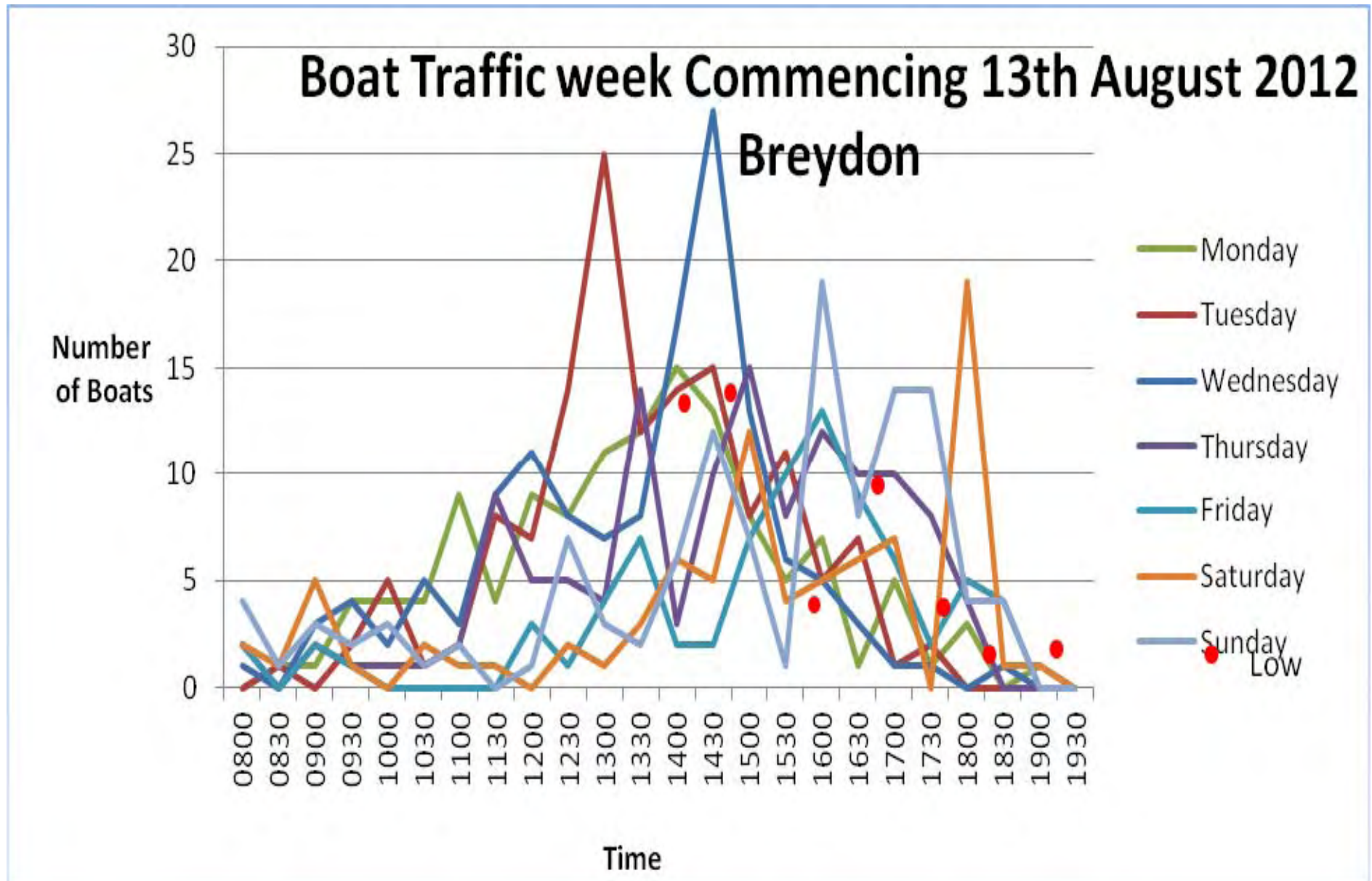
APPENDIX 5




Boat Traffic for Yarmouth Yacht Station Boat Census 2006 and 2010







Appropriate Assessment Habitats Regulations Assessment		 Broads Authority The Broads - a member of the National Park family
<i>Broads Authority Assessment of Likely Significant Effect on a European Site</i>		
The new application for designating a water ski zone on Breydon Water.		
PART A		
1. Type of permission/activity:	Designating a water skiing zone on Breydon Water (SSSI, SPA, Ramsar). Designating body is the Broads Authority	
2. National Grid reference:	See Maps Appendix 1	
3. Site reference:	Breydon Water (SSSI, SPA, Ramsar).	
4. Brief description of proposal:	The proposal involves allowing water skiing within a 1.4 nautical mile stretch of the navigation channel of Breydon Water	
5. European site name(s) and status:	Breydon Water (SPA, also SSSI and Ramsar site)	
6. List of interest features:	<p>See Table 1 for full list of features notified for the Internationally important SPA, Ramsar and nationally important SSSI in the attached Conservation Objectives and Favourable Condition.</p> <p>SPA peak bird numbers (Jan 2011) See Appendix 3 for full summary data 7150 Golden plover 29370 Wigeon 16955 Lapwing 5407 Dunlin</p>	
7. Is the proposal directly connected with or necessary to the management of the site for nature conservation?	No	

8. **What potential hazards are likely to affect the interest features?** (Refer to relevant sensitivity matrix and only include those to which the interest features are sensitive). **Are the interest features potentially exposed to the hazard?**

Potential Hazards and Exposure:

There is considerable literature on bird disturbance. The references used in this HRA is set out below:

- BOU proceedings: <http://onlinelibrary.wiley.com/doi/10.1111/ibi.2007.149.issue-s1/issuetoc>
- Davidson N., Rothwell, P. 1993. Disturbance to waterfowl on estuaries. WSGB 68 Special Issue is available at <http://elibrary.unm.edu/sora/IWSGB/n068/>
- BTO report: <http://www.bto.org/sites/default/files/u196/downloads/rr388.pdf>
- Orwell estuary disturbance study 2004-05: [http://www.suffolkcoastandheaths.org/uploads/STOUR-ORWELL%20DISTURBANCE%20STUDY%202004-05%20REPORT%2025-9-05\(2\).pdf](http://www.suffolkcoastandheaths.org/uploads/STOUR-ORWELL%20DISTURBANCE%20STUDY%202004-05%20REPORT%2025-9-05(2).pdf)
http://www.uea.ac.uk/env/all/teaching/eiaams/pdf_dissertations/2011/Millican_Luke_2011.pdf
http://www.solentforum.org/resources/pdf/natconsv/solent_disturbance_phase1.pdf
- **Direct disturbance to significant populations of wintering birds** – NE report (2001) states that birds are highly vulnerable to disturbance from waterskiing and that further investigation is required to assess the impacts at Breydon. Wintering birds are disturbed by high speed craft on Breydon Water SPA (pers comm. RSPB). This disturbance is in response to high speed boat activity and is significant across Breydon Water. The RSPB have observed that often flocks of birds will not settle for periods up to one hour or on some occasions they will leave the estuary, on which they rely for feeding and resting. Birds are not significantly disturbed by boats travelling within the channel at lower speeds (EN 2001). This disturbance had not been reported to the Port Authority as it was only observed on a few times. There is some concern that promotion of Breydon as a waterski zone will increase the amount of high speed activity. There is no data on current or future use of waterskiing during the winter.
- **Direct disturbance to significant populations of summer birds** – Birds are already exposed to a high background of regular recreational vessels within the navigation channel, particularly during the summer (over 400 movements recorded at Great Yarmouth Yacht station in the 2010 three day summer boat census – see Appendix 2). Waterskiing is likely to form a small fraction of the overall summer boating activity, although the activity may be intense, with multiple passes. The majority of waterskiing will take place in the summer. Waterskiing will remain within the navigation channel and 10m inside the posts for safety reasons. There is no evidence that suggests that summer birds are significantly disturbed by current recreation activity. However, there is a record of probable fatalities of shelduck (Peter Allard pers. comm.) as a result of water skiing. The proposed waterski zone seeks to formalise and regulate the current activity that mainly occurs in the summer.
- **Wash** – minimum standards, with all vessels tested to ensure they comply
- **Pollution** - all vessels comply with the boat safety scheme
- **Noise** – all vessels are tested to ensure they do not exceed British Standard
- **Unqualified skippers** – all skippers require proof of ski-boat driver award

All mitigations listed below will be enforced through the waterskiing permit scheme, and monitored and enforced on site where possible by the Broads Authority rangers.

The full list of mitigations that are proposed to be put in place for the proposed Breydon water ski zone are:

- Broads Authority Act states it is an offence to water ski in any area that has not been designated and as such water skiing will only be able to take place in existing zones and the proposed zone area on Breydon which will be signed.
- Water skiing will only be able to take place at the times prescribed by the Authority, for Breydon 0.5 hrs before and 2 hrs after predicted low water at Yarmouth Yacht Station.
- All water skiing activity will be permitted and key permit conditions are set out below:
- all drivers to hold the Ski Boat Driver Award;
- A minimum level of insurance (£2,000,000 third party liability) required;
- Boats to have passed a wash and noise test and a steering check;
- All drivers to be members of ERSC and British Water Ski;
- The annual submission of log books at the end of the licence period to the Authority. To monitor usage and review the activity.
- Other conditions relating to navigational safety which were previously set out in byelaws. A full set of the current

8. What potential hazards are likely to affect the interest features? (Refer to relevant sensitivity matrix and only include those to which the interest features are sensitive). **Are the interest features potentially exposed to the hazard?**

Sensitive Interest Feature:	Potential hazard:	Potential exposure to hazard & mechanism of effect/impact if known:
Aggregations of non-breeding birds:		
Bewick's Swan *	None above normal activities in this area	No
Wigeon *+	None above normal activities in this area	Yes
Shelduck *+	None above normal activities in this area	Yes
Avocet *	None above normal activities in this area	Yes
Golden Plover *	None above normal activities in this area	Yes
Ruff *	None above normal activities in this area	Yes
Common Tern *	None above normal activities in this area	No
Lapwing +	None above normal activities in this area	Yes
Shoveler +	None above normal activities in this area	Yes
Gadwall +	None above normal activities in this area	Yes
European white-fronted Goose	None above normal activities in this area	No
Black-tailed Godwit	None above normal activities in this area	Yes
Zostera community: Intertidal mudflats and sand flats; eel grass beds	None above normal activities in this area	No
Plant assemblage of coastal embankments, sea-walls, open poached, dry or periodically inundated brackish or saline mud	Changes in extent would be considered unfavorable if attributable to activities which interrupt natural estuarine processes. There is no evidence that the existing levels of boat activity which includes high speed boats and any associated erosion and resuspension is resulting in any impact on the designated features.	No

* Annex 1 species + Migratory species

9. Is the potential scale or magnitude of any effect likely to be significant?

a) Alone? (explain conclusion, e.g. in relation to de minimus criteria)	Yes / No (Including the prevailing environmental influences)
b) In combination with other plans or projects?	Yes / No Other consented high speed boating activity (e.g. boat testing) and likely disturbance.

<p>c) In combination with plans/projects of other Competent Authorities?</p>	<p>Consultation has been undertaken with NE as competent authority, RSPB, Great Yarmouth Bird Club and local naturalist Peter Allard.</p> <p>EA/BESL - Planning application to be submitted, accompanied by and EIA, in the next 4-6 weeks for improvement works to 1.2km of floodbank on the north side of Breydon. Discussions with NE and RSPB have resolved that there will be no significant effects on the SPA subject to suitable programming of works to avoid winter and breeding season.</p> <p>The work will include a small encroachment onto the SPA because of the need to do front face strengthening along the section immediately next to the railway line (drawings can be provided). BESL will be sourcing material from Railway Marsh (in partnership with RSPB), which is within the SSSI but not the SPA.</p> <p>BA – work to navigation channel marking. Works in two phases, to avoid as much as practical the main over-wintering period.</p> <ol style="list-style-type: none"> 1. Downstream of Breydon Bridge close to the mouth of the River Bure (outside of the SSSI). Remove and replace a damaged marker and install two additional marker posts. Due to the tidal conditions and channel restrictions, for safety reasons this work has to be undertaken outside of the main hire boat season. The work will take approximately 10 days and we have a start date of 12th November 2012. 2. In the same area as above and on Breydon water. Removal of dolphins at the mouth of the River Bure and installation of timber marker posts and piles at the upstream end of Breydon Water. Programmed to start in March with approximately 2 weeks work on Breydon Water. <p>NCC/EA/BESL - Easy-access ramp from Asda car park, grass mesh, replacement hide and information board. This is already a heavily walked section around Breydon so this project is unlikely to change the degree of disturbance that the birds are already subjected to. The project will be accompanied by an Environmental Statement.</p> <p>There are no other Competent Authorities that have plans or projects that could act in combination with waterskiing. The Authority can conclude that this application alone could result in adverse effect on the SPA and could also act in combination with other plans/projects being undertaken with the Breydon Water area.</p>
<p>10. Conclusion: Is the proposal likely to have a significant effect 'alone or in combination' on a European site?</p>	<p>Yes / No</p>
<p>11. Other competent authorities involved</p>	<p>Natural England</p>
<p>12. Determine the extent to which each possible impact can be avoided.</p>	<p>Disturbance to wintering birds from waterskiing could be avoided by the following measure: That waterskiing is not being permitted from November to February inclusive.</p> <p>Providing this measure is implemented in full the adverse impact on the SPA features should be avoided.</p>

What alternative solutions could be considered?	None	
11. Name of BA Officer:	Andrea Kelly	Date: 18/09/12
12. NE comment on assessment: (If the NE officer disagrees with the conclusion of 10c, please include details of the other Competent Authorities which should be consulted).		
13. Name of NE Officer:		Date:

References

Breydon Water European marine site, English Nature's advice given under Regulation 33(2) of the Conservation (Natural Habitats & c.) Regulations 1994, published in 2001 by English Nature (now Natural England)

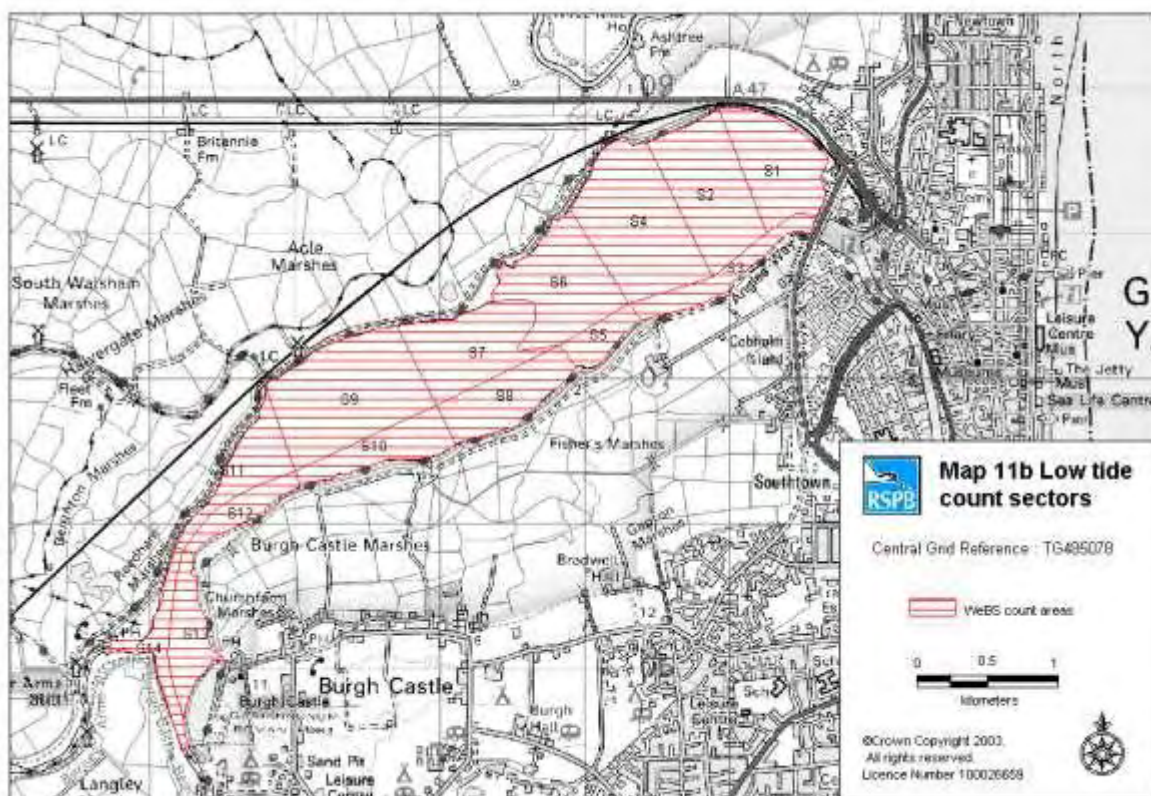
Appendix 1. Maps of Breydon

(see Appendix 4 and 5 in the main Committee report)

Appendix 2. BoatTraffic that is indicative of summer boating activity on Breydon water

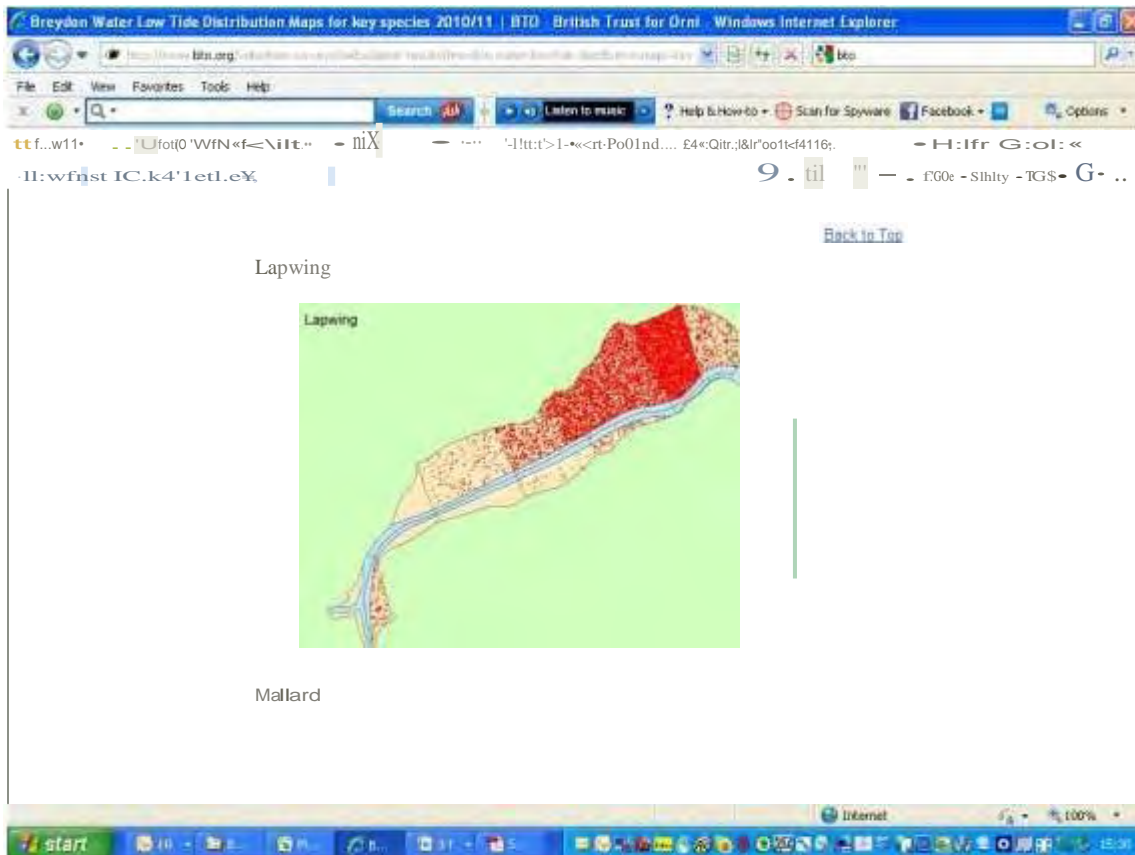
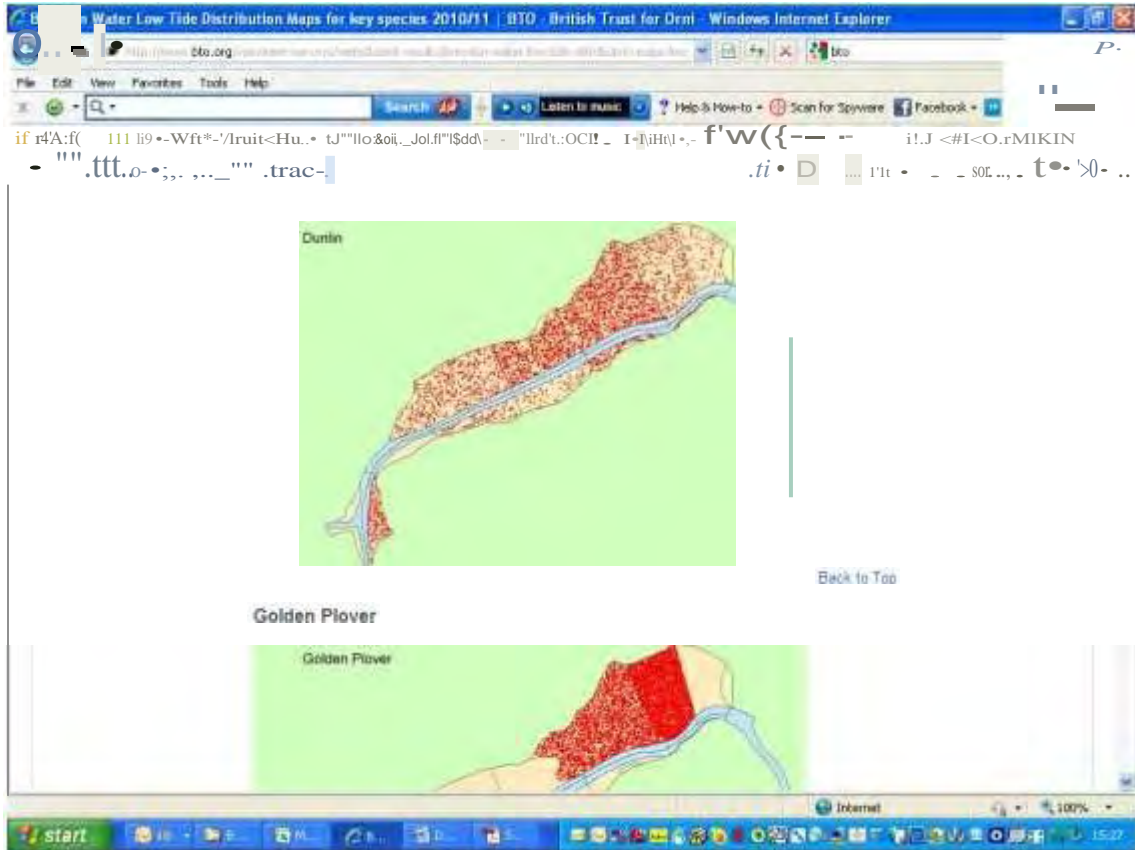
(see Appendix 6 and 7 in the main Committee report)

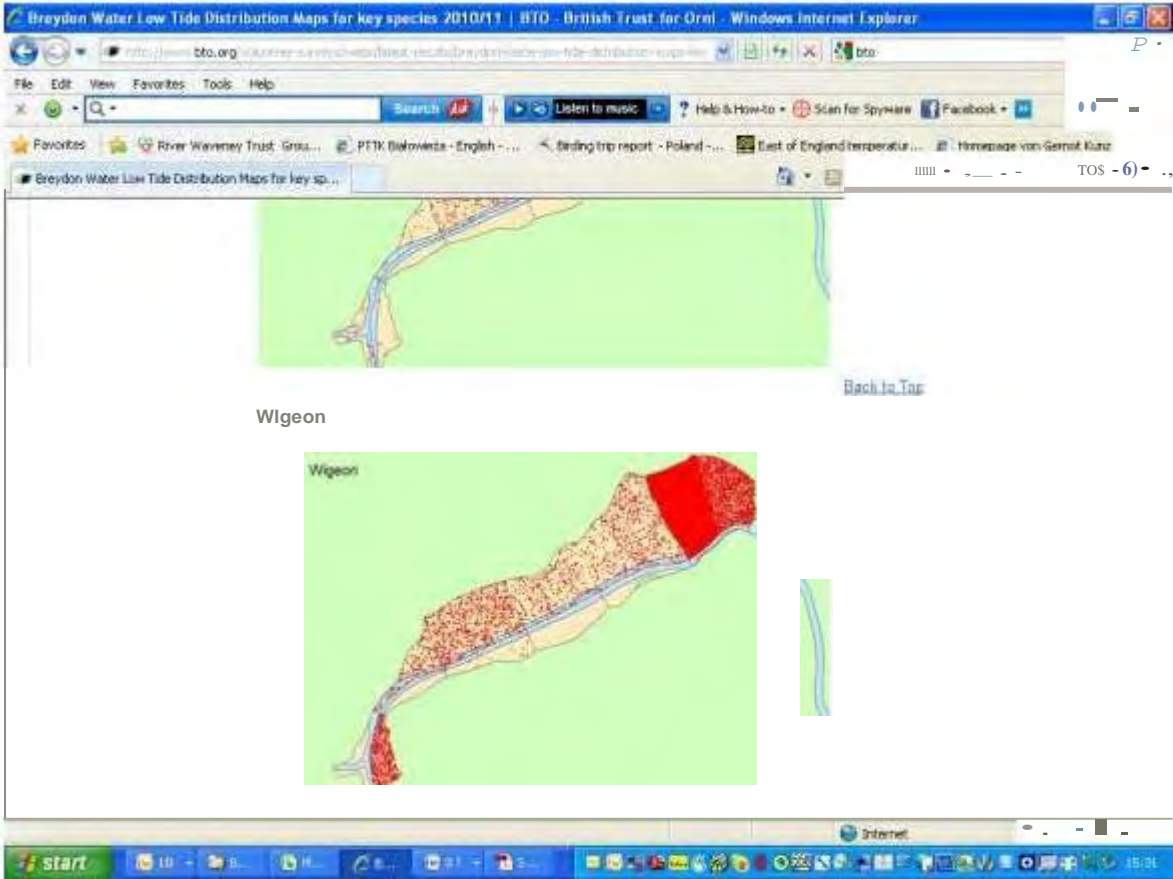
Appendix 3. Low Tide Counts zones, summary data and distribution for Breydon Water



Site	Month	Species	LTC
Breydon Water and Berney Marshes	01-DEC-10	Lapwing	438
Breydon Water and Berney Marshes	01-NOV-10	Wigeon	6457
Breydon Water and Berney Marshes	01-NOV-10	Dunlin	3070
Breydon Water and Berney Marshes	01-JAN-11	Wigeon	29370
Breydon Water and Berney Marshes	01-FEB-11	Dunlin	3470
Breydon Water and Berney Marshes	01-NOV-10	Redshank	801
Breydon Water and Berney Marshes	01-JAN-11	Teal	562
Breydon Water and Berney Marshes	01-DEC-10	Teal	375
Breydon Water and Berney Marshes	01-JAN-11	Golden Plover	7150
Breydon Water and Berney Marshes	01-FEB-11	Black-tailed Godwit	548
Breydon Water and Berney Marshes	01-NOV-10	Black-tailed Godwit	878
Breydon Water and Berney Marshes	01-JAN-11	Lapwing	16955
Breydon Water and Berney Marshes	01-DEC-10	Dunlin	5407
Breydon Water and Berney Marshes	01-DEC-10	Wigeon	8812
Breydon Water and Berney Marshes	01-JAN-11	Avocet	150
Breydon Water and Berney Marshes	01-JAN-11	Redshank	1194
Breydon Water and Berney Marshes	01-FEB-11	Oystercatcher	34

Breydon Water Low Tide Distribution Maps for key species 2010/11







BROADS AUTHORITY

Water Skiing and Wake Boarding Permit

This Permit is issued under Section 27 of the Broads Authority Act 2009.

The Broads Authority hereby permits

_____ to navigate the Authorised Vessel

for the purpose of towing a water skier (or wake boarder) in the zones and at the times specified in Appendix 1 to this Permit provided this is in accordance with the conditions specified below.

This Permit is issued on the basis that

- a) the Authorised Vessel has a block area of no more than 13 square metres, has a planing hull, and does not have permanent covered accommodation.
- b) the Authorised Vessel has been registered in accordance with the Authority's Byelaws and that payment of the Prescribed Annual Toll for the vessel has been made.

In this Permit the following definitions apply:-

The "2009 Act" means the Broads Authority Act 2009

"Authorised Vessel" means the vessel described in Part 1 of the Schedule

"Authorised Person" means the persons named in Part 2 of the Schedule

The "Authority" means the Broads Authority

The "Permit Holder" means the person named above

The "Prescribed Annual Toll" means the appropriate annual toll within a scale of tolls, currently in force in any year, as prescribed by the Authority pursuant to Section 26 of the Harbours Act 1964

"Kill Cord" means a device to automatically stop the engine of the Authorised Vessel if the person navigating the Vessel leaves the helm

"Air Chair" means a board or chair with an integral hydrofoil for the purpose of lifting the rider and board or chair above the surface of the water

“Bank Start” means where a skier is pulled from a bank or platform by a water ski vessel to start the water skiing activity.

“Boom” a device which extends over the edge of a vessel for the purpose of providing physical support during training and for barefooting.

“Inflatable” means an object that can be inflated with gas or air.

“Jumping” means being towed by a boat and using a ramp to leave the surface of the water.

“Parascending” means being towed behind a vessel while attached to a specially designed parachute, known as a parasail.

“Kneeboard” means a buoyant board ridden in a kneeling stance that is used to ride on water whilst being towed behind a boat.

“Wakeboard” means a device where the feet are bound to a device at an acute angle to the parallel that is designed to travel on the wake created by the towing vessel,

“Water Ski” means a ski-like board used in pairs, or a mono ski, where the feet are bound in-line with the parallel that is designed to ride on water whilst being towed behind a boat.

THE CONDITIONS

1. This Permit runs from _____ to 31 March 2013 unless cancelled earlier by the Authority under Condition 23 of this Permit.

2. This Permit is personal to the Permit Holder and is not transferrable.

3. (a) This Permit does not permit anyone other than the Permit Holder and the Authorised Persons to navigate the Authorised Vessel.

(b) Condition 3(a) does not apply in respect of training for the British Water Ski ski-boat driver award that can be undertaken for a maximum of 3 months in the period covered by this Permit. The Permit Holder or Authorised Person must be on board the Authorised Vessel and is considered master of the vessel at all times during the period of training.

- 4 a) This Permit authorises the Permit Holder and the Authorised Persons to navigate the Authorised Vessel at a speed over the ground greater than specified in the Broads Authority Speed Limit Byelaws 1992 Schedule 1 while being used for the purpose of “towing a water skier” in the zones and at the times specified in Appendix 1 to this Permit

b) For this purpose, “towing a water skier” shall be deemed to include the act of recovering a water skier who has been separated from the vessel during towing.

5. The Permit Holder and any Authorised Person must:-
 - (a) Throughout the period of this Permit each maintain a policy of insurance in respect of any liability referred to in paragraph 2 of Schedule 3 to the 2009 Act in the sum of £2,000,000.
 - (b) On written request from an Officer of the Authority to do so produce to the Authority evidence of the insurance cover referred to in Condition 5 (a).

6. (a) The Permit Holder and any Authorised Person and any person under training must throughout the period of this Permit:-
 - (i) Each be a member of both the Eastern Rivers Ski Club and the [British Water Ski & Wakeboard](#)
 - (ii) Except where Permit Condition 6 (b) applies, only tow water skiers or wake boarders who are members of such clubs.

- (b) Condition 6 (a) (ii) does not apply in respect of water skiers and wake boarders who are towed up to a maximum of 4 occasions in the period covered by this Permit.

- 7. The Permit Holder and any Authorised Person must throughout the period of this Permit each hold a current British Water Ski Boat Driver Award or qualification approved by the Authority following consultation with the British Water Ski and Wakeboard.

- 8.
 - (a) Whilst in use for the purpose of water skiing or wake boarding the Authorised Vessel must display in the approved position a set of registration marks at a minimum height of 225mm (9 inches) and of a type, colour and material approved by the Authority.

 - (b) For this purpose, “approved position” means on each side of the bow and at the after end of the vessel so as to be visible from astern.

- 9. The Authorised Vessel must not be used pursuant to this Permit if, following its issue, either:-
 - (a) A material change is made to it or to its systems which in either case may affect the generation of wash or noise from the vessel, unless that change has been approved by The Authority; or

 - (b) A change is made to the vessel that either increases its block area to more than 13 square metres or involves the provision of a non-planning hull or permanent covered accommodation.

- 10. The Authorised Vessel must have completed and passed a Wash and Noise Test of a type approved by the Authority and complying with the pass criteria set out in Appendix 3 to this Permit.

- 11.
 - (a) The Authorised Vessel must be subjected to an annual test (which complies with the methodology set out in Appendix 4 of this Permit) carried out by a person approved by the Authority which verifies that:
 - (i) The steering system of the vessel is in good condition and fit for purpose and,
 - (ii) The Kill Cord functions correctly.

 - (b) The Permit Holder must produce to the Authority on request details of the test carried out under condition 11(a).

- 12. The Permit Holder and any Authorised Person must use “approved equipment” only
 - a) For this purpose, “approved equipment” shall be limited to
 - i. The Authorised Vessel
 - ii. Tow Rope;
 - iii. Knee Board

- iv. Wake Board
- v. Skis
- vi. Boom

13. The Permit Holder and any Authorised Person must not permit the use of ballast or excessive weight in the vessel or carry passengers in excess of the manufacturer's recommendations.
14. The Permit Holder and any Authorised Person must not permit the use of "air chairs", and any "inflatable".
15. The Permit Holder and any Authorised Person must not cause an Authorised Vessel to make any sustained wave, against a bank, of more than 300 mm (12 inches) in height from trough to crest.
16. (a) The Permit Holder must:-
 - (i) Maintain and keep up to date a log book issued by the Authority in respect of the use by the Permit Holder and any Authorised Person of the Authorised Vessel under this Permit.
 - (ii) Keep the log book on the Authorised Vessel whilst being used by the Permit Holder and any Authorised Person under this Permit.
 - (iii) Produce the log book on request to any officer of the Authority.
 - (iv) Return the log book to the Authority at the end of the period covered by this Permit or upon its cancellation if earlier.
- (b) Any Authorised Person whilst operating the Authorised Vessel under this Permit must produce the log book on request to any officer of the Authority.
17. The Permit Holder and any Authorised Person must navigate the Authorised Vessel with care and caution.
18. The Permit Holder and any Authorised Person must not navigate the Authorised Vessel unless there is also on board at least one person to provide assistance during towing.
19. The Permit Holder and any Authorised Person must not at any time navigate the Authorised Vessel so as to tow more than 2 persons.
20. The Permit Holder and any Authorised Person must ensure that any water skier or wake boarder being towed does not engage in parascending, ski jumping, or bank starts.
21. The Permit Holder and any Authorised Person must:-
 - (a) Use tow-ropes of equal length when towing two water skiers; and

- (b) Ensure that two water skiers do not cross in front of, or behind, each other; and
 - (c) Not navigate the Authorised Vessel without attaching the Kill Cord to their person in a way which ensures that it will operate effectively.
- 22.
- a) The Permit Holder and any Authorised Person must ensure that any water skier or wake boarder being towed remains in or on the water at all times during towing.
 - b) Condition 22 (a) does not apply in respect of water skiers and wake boarders provided that all of the conditions 22 b) i),ii),iii), and iv) are complied with.
 - i) Water skiing and wake boarding shall be limited to zones and times set out in Appendix 2.
 - ii) No more than six concurrent Authorised Vessels are used at any one time in any one zone set out in Appendix 2.
 - iii) The Permit holder and any Authorised Persons shall register with the Authority on each occasion their intention to navigate the Authorised Vessel.
 - iv) The Permit Holder and any Authorised Person must not at any time navigate the Authorised Vessel so as to tow more than 1 person.
23. The Authority may cancel this Permit, or amend its conditions, if:-
- (a) The Permit Holder or any Authorised Person is convicted of an offence under Section 29 of the 2009 Act; or under any byelaw made by the Authority; or
 - (b) Condition 5 of this Permit has not been observed.

The Schedule

Part 1

The Authorised vessel to which this Permit applies is as follows¹:

Part 2

The Authorised Person/s to which this Permit applies is/are as follows²:

1	Permit Holder
2	Authorised Person
3	Authorised Person
4	Authorised Person

Appendices

- 1 Water Ski and Wake Boarding Zones and Times
- 2 Water Ski and Wake Boarding Zones and Times applicable to the Wake Boarding Trial 2012/13
- 3 Wash and Noise Test Pass Criteria
- 4 Annual Steering and Kill Cord Test Methodology

² This information should be added by the Broads Authority only. Additions may also only be made by the Broads Authority.

From: Shapland, Francesca (NE) [<mailto:Francesca.Shapland@naturalengland.org.uk>]
Sent: 15 October 2012 17:09
To: Andrea Kelly
Subject: 66850: HRA Water Skiing proposal at Breydon Water

Dear Andrea

Thank you for consulting Natural England on the Appropriate Assessment for the water skiing proposal at Breydon Water. Chris Bielby has passed your request to me as formal requests on Appropriate Assessments are generally responded to by Land Use, rather than Land Management (with advice from Land Management).

We agree with your overall assessment. If water skiing is limited to between March and October there should not be any adverse impacts to the interest features of Breydon Water SSSI, SPA, Ramsar.

We just have a small recommendation. In our view, it should be made clear that the water ski zone is a 1.4 nautical mile length of the navigation channel. It currently reads 'The proposal involves allowing water skiing within a 1.4 nautical miles of the navigation channel of Breydon Water'. It would be clearer if the word 'stretch' was inserted after 'nautical miles'.

I hope that helps and am happy to answer any queries.

Kind regards

Francesca

Francesca Shapland
Planning and Conservation Adviser
Land Use Operations

Tel: 0300 060 1232

www.naturalengland.org.uk

We are here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations.

In an effort to reduce Natural England's carbon footprint, I will, wherever possible, avoid travelling to meetings and attend via audio, video or web conferencing.