

The Value of Angling in Essex, Norfolk & Suffolk (ENS) Area



A summary of published facts and figures relevant to freshwater fisheries May 2015

Why is economic information on freshwater fisheries needed?

[Understanding the contribution](#) made by inland fisheries is vital for making effective decisions about managing and investing in fisheries^{1,1a}.

The Environment Agency has a statutory duty to maintain, improve & develop fisheries arising from the Salmon & Freshwater Fisheries Act 1975 and Environment Act 1995.

As well as the conservation of fish stocks, the Environment Agency's remit includes enhancing the contribution that fisheries make to the economy and the social value of angling as a widely available and healthy form of recreation. The economic values of fisheries also set the context for dealing with potential outbreaks of fish diseases and environmental incidents (for example dealing with future storm surges & saline incursions, toxic algae blooms) or management changes (such as calculating the socio-economic impact of losses or gains in angling access) that may affect fisheries, and for securing national, regional and local funding for schemes to improve fisheries.

Other bodies, notably regional and national government, may find it helpful to have a better understanding of the economic activity supported by angling, the potential for sustainable economic growth and the extent to which the public value fish and fisheries^{1b, 1c}.

Value of angling in Essex, Norfolk & Suffolk (ENS) Area

Freshwater fisheries in ENS Area are predominantly coarse and non-migratory trout. The diversity and quality of fishing in the area has a considerable reputation with anglers, with Norfolk, the River Wensum and the Broads of local, Regional and National reknown^{2, 2a, 2b, 2c, 2d, 2e}. The Wensum and Broads are considered so important they were included amongst the country's first pilot Fisheries Action Plans (FAPs) in 2002^{3, 3a, 3b}.

Whilst it is difficult to find any specific data to describe the value of fisheries in ENS Area as a whole, tourism data are available for the Norfolk &

Suffolk Broads. At 1,059km², this area covers the tidal sections of the rivers that collectively form the Broadland Rivers WFD Catchment*¹ (see maps Appendix 1 & 1a), comprising 11.8% of the total catchment of ENS Area (9,000km²). It is therefore important to recognise that the actual socio-economic importance of freshwater fisheries in ENS will be significantly higher than the figures available for the Broads alone.

Estimating angling's contribution to Broads Tourism:

The Broads are arguably the best known and probably the most important single natural freshwater fishery resource in the UK. The principle issues affecting the fishery and the strategic framework for its management are set out in the [Broads Angling Strategy](#)^{3c}.

A review of published data for the Broads^{4, 4a, 5, 5a, 6} suggests that:

- there were almost **8.1 million visitors** to the Broads area in 2013
- a total of almost **£569 million direct expenditure** was derived from tourism, supporting **6,867 FTE jobs** in the area
- Broads hire and private boats were estimated to have contributed just over **40%** of the total direct expenditure from Broads tourism (**£231.28 million**)
- combined economic impact (direct & indirect expenditure) of tourism was over **£786 million**, supporting **9,452 FTE jobs**

In light of the available data, there would appear to be two routes for producing an estimate of the contribution made to the local economy by angling activity:

- **18%** of Broads visitors went fishing in 2014^{4a}, up from **16% (1.25 million visits)** in 2010⁴
- At the time of writing, the latest set of published Broads STEAM tourism activity data is from 2013^{5a, 5b}. If we consider that

*1 It does not include the majority of the non-tidal sections of the rivers Wensum, Ant, Bure, Yare & Waveney and their tributaries that combine with the Broads to form the Broadland rivers WFD Catchment

between **16% - 18%** of all Broads visitors went fishing in 2013 (**1.29 million – 1.45 million visits**), then on this basis Broads anglers contributed between **£91 million - £102 million** direct expenditure to the local economy through tourism activity. The latter figure represents potential indexed-growth of over **£9.7 million** on 2010

- the combined economic impact of angling on this basis was between **£125.8 million - £141.6 million** of the total estimated
- **21%** of visitors want to go fishing in the future^{4a}, representing **potential growth** of over **241,000 angling visits** and **£17 million** direct expenditure per annum based on tourism figures from 2013.
- Of particular socio-economic note is:
 - the potential for engaging new anglers amongst the 8 million annual visitors to the Broads area
 - the potential for the Broads to drive improved rod licence sales nationally²
 - the importance of angling to tourism especially in the ‘shoulder’ and low-seasons – e.g. the Broads is nationally renowned for pike fishing^{2c, 2d, 2e}, with the traditional pike fishing season occurring between 1 October and 14 March
 - during the fishing season, one of the major Broads holiday companies estimated around **75%** of water-facing holiday accommodation is let to anglers and their families^{6a}

However, applying a flat visitor rate across all sectors may be underestimating the influence of angling, particularly on hire and private boating activity in the Broads. Local angling representatives have long felt that the importance of the angling pound has been underestimated^{3a, 3b, 3d}. Field observations (eg by Environment Agency Fisheries Enforcement Officers^{3e}) and examination of the available data would appear to support this. Indeed one of the major Broads hire boat yards recently estimated that over 50% of their business is influenced by angling in the fishing season^{3f}.

The Broads STEAM data describes the specific contribution of the boating (hire & private boats) sector^{5b} to the overall Broads tourism performance in 2013 and therefore provides an opportunity to generate a more accurate economic estimate of angling activity thus:

- Broads visitor survey data from 2010⁴, 2012⁶ and 2014^{4a} indicates that angling

influences between **28%⁴ - 40%⁶ of Broads boating activity**^{*2}. The 2014^{4a} Stakeholder survey indicated that **39%** of private boat owners go fishing. On this basis, the influence of angling on the boating sector alone in 2013 is estimated to be worth between **£64.8 million - £92.5 million**^{*3} to the local economy

- based on visitor survey data from 2010⁴ and 2014^{4a}, angling potentially influences between **8%⁴ and 18%^{4a}** of the land-based tourism activity in the Broads. On this basis, the influence of angling on the land-based tourism sector in 2013 is estimated to be worth between **£27 million - £60.7 million** to the local economy
- on the basis of the available data, it is therefore likely that in 2013 angling visitors influenced direct expenditure worth between **£91.8 million - £153.2 million** to the local economy. The combined economic impact of angling was between **£129.2 million – £214.4 million** of a total of **£786.48 million** reported for the Broads area in 2013.

Migratory salmonid fisheries are often ascribed economic value by looking at the angler spend per salmon or sea trout caught. It is understandably difficult to apply the same approach to coarse fisheries like the Broads. In order to compare the relative economic contribution of each fishery resource, one could consider the level of angler activity per unit e.g. length of river. This approach was undertaken for an economic evaluation of water-based recreation on the [Rivers Great Ouse, Nene and Ancholme](#)¹². The authors estimated that recreation on these rivers was worth between **£200,000 - £240,000** per mile per annum, with anglers’ expenditure making up an average of **35%** of this contribution.

- If we consider the length of the Broads rivers at 179km^{3a} and assume all Broads angling takes place on them, tourism estimates suggest angling influenced expenditure worth between **£0.51 million - £0.85 million per km** of tidal river in 2013. The combined economic impact of angling was between **£0.72 million - £1.2 million per km**

^{*2} according to a peak season survey in 2012, angling influenced **40.3%** of Broads hire boat parties, with **77%** of water-based anglers purchasing their rod licence outside of the former Anglian Region.

^{*3} **Broads STEAM**^{5a, 5b} data reports that boat-based direct expenditure was worth **£231.3 million** in 2013 and land-based tourism generated **£337 million**. The total Broads tourism activity reported was **£568 million direct expenditure; £786 million combined expenditure**

Estimating the economic value of angling in ENS Area

The Broads STEAM area forms just 11.8% of the total catchment area of ENS area (9,000km²). Given the importance of freshwater fisheries across ENS area, the true socio-economic contribution of angling is likely to be significantly higher than the estimates available for the Broads alone. Whilst there does not appear to be any published data specific to ENS area, it is possible to produce a crude estimate thus:

- Allowing for inflation and assuming the level of angling activity has remained constant over time, the Environment Agency estimated that the direct expenditure of anglers in the East of England was the equivalent of **£139 million** in 2013^{1,7}.
- Assuming that the level of angling activity is the same over the whole East of England area, this represents a spatial contribution of **£7,254 per km²**¹³ (in reality it is clear that the amount of angling activity is higher in some local areas than others. This appears to be supported across a range of metrics, including Regional Rod Licence sales^{*4})
- On this basis angling activity in the remaining 7,941km² of ENS area is likely to have generated over **£57.6 million** of direct expenditure in 2013
- Combined with the available data from the Broads, this information suggests that freshwater angling activity in Essex, Norfolk and Suffolk Area is likely to have contributed between **£149.4 million - £210.8 million** direct expenditure to the local economy in 2013

To put the significance of the Broads fishery resource into context and therefore the potential overall significance of ENS Area, we should also consider the available metrics on freshwater fisheries elsewhere in the UK⁵. These data are summarised in Appendix 2, 3 & 3a. Of particular note:

- **1.7 million days** were fished on the inland waters of Wales in 2005, generating **£74 million** of expenditure [] by anglers¹. Allowing for inflation, this level of expenditure would equate to over **£93 million** in 2013^{7,7a}

^{*4} Of the three operational areas (Eastern, Northern and Central) that comprised the former EA Anglian Region, between 2009/10 and 2013/14 Eastern area rod licence sales typically comprise 43-45% of the total sold in the Region (Central=@29%, Northern=@26%)³⁹

⁵ Where estimates have been adjusted to reflect inflation since the date of the original study, we assume that the level of angling activity has remained constant during this period

- According to a report on Scottish Game & Coarse angling for the [Scottish Government](#)⁸, **1.39 million days** were fished in Scotland in 2003, generating **£113 million** of direct expenditure by anglers. This level of expenditure would equate to **£147 million** in 2013⁷, **£73 million** more than an estimate of [the tourism value of golf in Scotland](#)⁹
- Salmon and sea trout fishing in Scotland attracted over **0.5 million angling visits** in 2003 and generated over **£73 million**⁸, equivalent to **£96 million** in 2013.
- The Spey is one of the four major salmon rivers of Scotland and at 172km is similar in length to the tidal rivers of the Broads. There were 54,746 angler days recorded in 2003, with a total angler expenditure of **£11.8 million**^{10,10a}. This level of expenditure would equate to **£15 million** in 2013⁷.
- The River Tweed is another principle Scottish Salmon river with an international reputation^{10b}. A study for the River Tweed Commission estimated the total economic output attributable to fishing on the Tweed system was **£18.2 million**, supporting **496 FTE jobs**. This study included the impact of non-fishing companions. Allowing for inflation, this figure would be equivalent to **£23.4 million** in 2013⁷.
- The total economic output associated with fishing on Tweed was estimated to be the equivalent of **£0.12 million per km²**^{10b}
- According to a report for the Scottish Government in 2009¹¹, the recreational sea angling sector in Scotland contributed **£141 million** to the Scottish economy, equivalent to almost **£164 million** in 2013⁷.
- According to a 2010 report by the NFU^{11a}, the output of farming in the whole Broads Rivers Catchment area, contributed **£150 million** to the Regional economy^{11b}. Assuming production remained constant, this would be equivalent to **£165 million** in 2013, or **£51,615 per km²**. Between 2005 and 2010, an estimated **£15.1 million** was spent on agri-environment schemes in the Broads
- The Scottish Government estimated the commercial sea fishing industry to be worth **£500 million** in 2012^{11a}, announcing at least **£6 million** of funding support in 2013 and a further **£700,000** for the seafood sector in 2014^{11b}

References:

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- ^{2a} *John Bailey's Fishing Guides – Where to fish in Britain & Ireland.* Silverdale Books, 2003
- ^{2b} 'Why I moved to Norfolk' Turnbull, C. Pers comm. 2015
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- ^{2d} *A Pikers Progression.* John Watson. Aitch 2. 2009
- ^{2e} *The Pike of Broadland.* Stephen Harper. Harper Angling Books 2007
- ³ Wensum Fisheries Action Plan, Environment Agency, 2003
- ^{3a} Towards an angling strategy for the Broads. ECON Environment Agency & Broads Authority 1999
- ^{3b} Broads Fisheries Action Plan. Broads Angling Strategy Advisory Group, Environment Agency, Broads Authority 2003
- ^{3c} [Broads Angling Strategy. Working in partnership to maintain, improve and develop angling and fisheries in the Broads area.](#) Broads Angling Strategy Group, Environment Agency, Angling Trust, Broads Authority 2013
- ^{3d} 'Well over half of Broads hire boats have rods on' - Currie, J. Pike Anglers Club of Great Britain, Broads Angling Strategy Group, Pers comm. Feb 2015
- ^{3e} 'I would say 50-60% of boats on average have anglers on' Beardmore, N. EA FEO, pers comm.. Feb 2015
- ^{3f} Brunning, J, Herbert Woods. Pers comm. to [Mustard TV 15 April 2015](#)
- ^{3g} [Anglian Region Fisheries Annual Report 2013/14.](#) Environment Agency
- ⁴ [Broads Visitor Survey 2010.](#) Broads Authority
- ^{4a} [Broads Visitor Survey 2015, Broads Authority](#)
- ⁵ [Broads STEAM analysis 2011,](#) Broads Authority
- ^{5a} Broads STEAM Draft Trend Report for 2009-2013, Broads Authority
- ^{5b} STEAM Broads Boats 2013/2012. Broads Authority
- ⁶ [Broads Hire Boat Federation Hirers Survey Questionnaire results.](#) Broads Hire Boat Federation, Broads Authority 2013
- ^{6a} Greasley, B. & Greasley, P., Company Directors Norfolk Broads Direct Ltd, pers comm
- ⁷ [UK Historical Inflation Rate 2005 – 2015.](#) RateInflation.com
- ^{7a} [The value to the Welsh economy of angling on inland fisheries in Wales.](#) Sustainable Access Campaign Cymru 2013
- ⁸ [Research Report: The Economic Impact of Game and Coarse Angling in Scotland.](#) Scottish Government 2004
- ⁹ [The Value of Golf to Scotland's Economy.](#) KPMG for Scottish Golf Union & Scotland The Home of Golf, 2011
- ¹⁰ [Evaluating an ecosystem service provided by Atlantic salmon, sea trout and other fish species in the River Spey, Scotland: The economic impact of recreational rod fisheries.](#) *Fisheries Research*, **96**, Issues 2-3, March 2009, 259-266
- ^{10a} [The Economic Impact of Water-Related Recreation in the River Spey Catchment 2003.](#) Spey Catchment Steering Group 2004
- ^{10b} [Tweed Economic Survey.](#) River Tweed Commission 2005
- ¹¹ [Technical Report: Economic impact of Recreational Sea Angling in Scotland.](#) Scottish Government 2009
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- ^{11b} Paul Hammett, Senior Policy Adviser, National Farmers Union, Pers Comm February 2015
- ^{11c} [6m boost for Scottish fishing industry.](#) Scottish Government press release 2013
- ^{11d} [Plans to grow Scotlands seafood sector.](#) Scottish Government press release 2014
- ¹² *Economic Evaluations of the Great Ouse, Nene and Ancholme.* Prepared for the Environment Agency by the Halcrow Group 2010
- ¹³ [Region and country profiles.](#) Office for National Statistics

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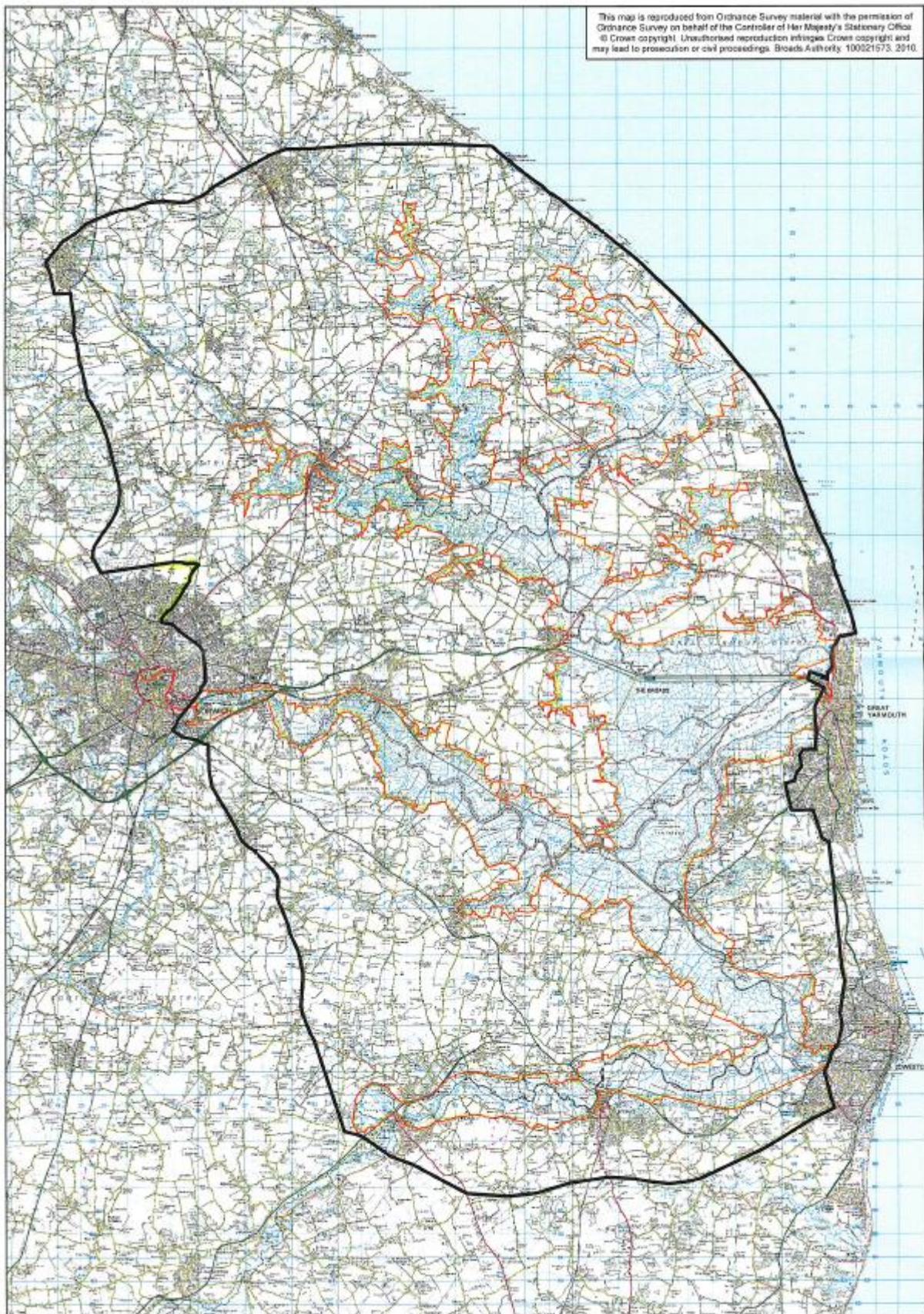
Appendix 1: Map showing ENS area and (inset) the Broads area



Essex , Norfolk & Suffolk Area
(Marked in blue)
Size of ENS area = 9,000km²

The Broads Executive Area
(shaded in white on inset map – Source: Broads Authority)
Size: 303 km²
Length of tidal rivers: 179km^{3a}

Appendix 1a: Map showing Broads area of influence used for STEAM 2013 (1,059km²) – Source: Broads Authority



Appendix 2: Economic evaluation of inland fisheries in England, Wales and Scotland 2013

	ENS Area – Norfolk & Suffolk Broads area* ¹	Wales* ²	Scotland* ²		Scotland – River Spey Catchment* ²
			(All inland fisheries)	(All Salmon & Sea Trout)	
Angling visits '000s	1,290 - 1,450	1,700	1,390	545	55
Direct Angler expenditure (2013 equivalent)	£91.8 million - £153.2 million	£93 million ^{7a} (Adjusted for inflation 2005-13)	£147 million (Adjusted for inflation to 2013)	£96 million (Adjusted for inflation to 2013)	£15 million (Adjusted for inflation to 2013)
Socio-Economic Value Expressed as:					
Angler Visits/km river length	7,151 - 8,045 Angling Visits/km	1,469 Angler Visits/km	28 Angler Visits/km	11 Angler Visits/km	320 Angler Visits/km
Angler Expenditure/km river length (2013 equivalent)	£0.51 million - £0.85 million angler expenditure/km (Based on Broads tidal rivers @ 179km total length ^{3a})	£80,615 angler Expenditure/km (Based on the 8 longest rivers in Wales @ 1,157km total length)	£2,931 Angler Expenditure/km (Scotland has in excess of 50,000km of rivers)	£1,914 Angler Expenditure/km (Scotland has in excess of 50,000km of rivers)	£87,209 Angler Expenditure/km (Based on the River Spey @ 172km total length)
Angler Visits/km ² overall geographical area	142 - 160 Angler Visits/km ²	82 Angler Visits/km ²	18 Angler Visits/km ²	7 Angler Visits/km ²	
Angler Expenditure/km ² overall geographical area (2013 equivalent)	£10,178 - £17,000 angler expenditure/km ² (Based on ENS area at 9,000km ²)	£4,488 angler expenditure/km ² (Based on area of Wales at 20,782km ²)	£1,862 angler expenditure/km ² (Based on area of Scotland at 78,722km ²)	£1,216 angler expenditure/km ² (Based on area of Scotland at 78,722km ²)	
Source:	2010 Visitor survey/2011 STEAM report , 2009-2013 Draft STEAM Trend report; 2015 Visitor Survey – Broads Authority 2013 BHF Survey	The value to the Welsh economy of angling on inland fisheries in Wales	The Economic Impact of Game and Coarse Angling in Scotland – Scottish Executive	The Economic Impact of Game and Coarse Angling in Scotland – Scottish Executive	An assessment of the economic impact of water based recreation in the Spey Catchment in 2003

*¹ At 1,059km², the Broads STEAM area forms 11.8% of the total catchment area of ENS Area. The figures quoted in the above table describe the values for the Broads area of influence only and do not include the additional values of the non-tidal sections of the Broads rivers, other river fisheries in ENS Area, or the value of stillwater gravel pits, carp syndicates, estate lakes and commercial fisheries etc in ENS Area. It is therefore reasonable to conclude that the socio-economic value of freshwater fisheries in ENS Area will be significantly higher than the values recognised for the Broads alone.

*² Assumes the annual level of angling activity has remained constant between time of study and 2013

Appendix 3: Summary table of economic activity [angling] 2005 (from: [Economic evaluation of inland fisheries 2009](#))^{*5a}

	North East	North West	Yorks & Humbers	West Midlands	East Midlands	East of England	London	South East	South West	Wales	England & Wales ^{*5}
Angler days '000s	1,260	4,013	3,505	4,859	4,989	2,344	353	4,533	2,680	1,714	30,250
Angler expenditure £000's	£45,567	£141,119	£133,618	£193,300	£157,161	£109,929	£23,765	£198,853	£103,577	£74,004	£1,180,893
Income (GVA) supported £000's	£21,020	£79,243	£74,970	£99,974	£78,173	£51,625	£13,907	£102,900	£51,495	£31,805	£980,418
Employment supported (FTEs)	935	3,247	3,139	4,218	3,336	2,146	448	4,241	2,255	1,454	37,386

^{*5} Because of different multiplier effects, estimates of GVA and FTE are not summations of individual regions. Only angler days and gross expenditures can be summed across regions.

^{*5a} The report assessed economic values based on Government Regions, which do not necessarily align geographically with the former Environment Agency Regions (e.g. East Midlands includes part of EA Anglian Region)

Appendix 3a: Comparing socio-economic activity associated with angling in the Broads area of ENS^{*6} against other English & Welsh regions^{*6a} (Figures assume levels of angling activity have remained constant since the date of the original study and have been adjusted to reflect inflation since 2005)

	Broads area of ENS ^{*6}	North East	North West	Yorks & Humber	West Midlands	East Midlands	London	South East	South West	Wales	England & Wales
Angler days '000s	1,290 - 1,450 (Angling visits)	1,260	4,013	3,505	4,859	4,989	353	4,533	2,680	1,714	30,250
Direct Angler expenditure (2013 equivalent)	£91.8 million - £153 million	£57 million	£178 million	£168 million	£244 million	£198 million	£30 million	£251 million	£131 million	£93 million	£1,488 million
Source:	2010 Visitor survey/2011 STEAM report, 2009-2013 Draft STEAM Trend report; 2015 Visitor Survey – Broads Authority 2013 BHBF Survey	Economic evaluation of inland fisheries 2009, UK Historical Inflation Rate 2005 – 2015. RateInflation.com	Economic evaluation of inland fisheries 2009, UK Historical Inflation Rate 2005 – 2015. RateInflation.com	Economic evaluation of inland fisheries 2009, UK Historical Inflation Rate 2005 – 2015. RateInflation.com	Economic evaluation of inland fisheries 2009, UK Historical Inflation Rate 2005 – 2015. RateInflation.com	Economic evaluation of inland fisheries 2009, UK Historical Inflation Rate 2005 – 2015. RateInflation.com	Economic evaluation of inland fisheries 2009, UK Historical Inflation Rate 2005 – 2015. RateInflation.com	Economic evaluation of inland fisheries 2009, UK Historical Inflation Rate 2005 – 2015. RateInflation.com	Economic evaluation of inland fisheries 2009, UK Historical Inflation Rate 2005 – 2015. RateInflation.com	Economic evaluation of inland fisheries 2009, UK Historical Inflation Rate 2005 – 2015. RateInflation.com	Economic evaluation of inland fisheries 2009, UK Historical Inflation Rate 2005 – 2015. RateInflation.com

^{*6} At 1,059km², the Broads STEAM area forms just 11.8% of the total catchment area of ENS Area; the figures describe the values for the Broads area only and do not include the additional values of the non-tidal sections of the Broads rivers, other river fisheries in ENS Area, or the value of stillwater gravel pits, carp syndicates, estate lakes and commercial fisheries etc in ENS Area. It is therefore reasonable to conclude that the socio-economic value of freshwater fisheries in ENS Area will be significantly higher than the values recognised for the Broads alone.

^{*6a} The report assessed economic values based on Government Regions, which do not necessarily align geographically with the former Environment Agency Regions (e.g. East Midlands includes part of EA Anglian Region)

