



OSPAR
COMMISSION

Riverine Inputs and Direct Discharges to
Convention Waters

OSPAR Contracting Parties' RID 2010 Data Report



OSPAR Convention

The Convention for the Protection of the Marine Environment of the North-East Atlantic (the "OSPAR Convention") was opened for signature at the Ministerial Meeting of the former Oslo and Paris Commissions in Paris on 22 September 1992. The Convention entered into force on 25 March 1998. It has been ratified by Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, Netherlands, Norway, Portugal, Sweden, Switzerland and the United Kingdom and approved by the European Union and Spain.

Convention OSPAR

La Convention pour la protection du milieu marin de l'Atlantique du Nord-Est, dite Convention OSPAR, a été ouverte à la signature à la réunion ministérielle des anciennes Commissions d'Oslo et de Paris, à Paris le 22 septembre 1992. La Convention est entrée en vigueur le 25 mars 1998. La Convention a été ratifiée par l'Allemagne, la Belgique, le Danemark, la Finlande, la France, l'Irlande, l'Islande, le Luxembourg, la Norvège, les Pays-Bas, le Portugal, le Royaume-Uni de Grande Bretagne et d'Irlande du Nord, la Suède et la Suisse et approuvée par l'Union européenne et l'Espagne.

Acknowledgement

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Addendum National 2010 RID data reports - <i>(available only in electronic version through the hyperlink below)</i>	

url: http://www.ospar.org/html_documents/ospar/html/Addendum_RID_2010_data_report.docx

Note: The Addendum 1 is a compilation of the extensive national reports provided by the following Contracting Parties: Denmark, France, Germany, Ireland, the Netherlands, Norway, Portugal, Spain, Sweden and the United Kingdom. Contracting Parties include in these reports more details on methodologies and results of the monitoring undertaken and also, to varying degrees, results of national statistical analyses.

The data from Denmark were reported to the data centre on 31 January 2012 and data from Germany on 20 May 2012. These data have not been taken up in the overview tables of this main report.

GLOSSARY

Catchment	The whole of an area having one common outlet for its drainage water. A catchment area could be subdivided into a monitored and unmonitored area, depending on where the monitoring point is located.
Cd	Cadmium
Cu	Copper
Direct discharges	A mass of a determinand discharged to the Maritime Area from point sources (sewage effluents, industrial effluents or other) per unit of time at a point on a coast or to an estuary downstream of the point at which the riverine estimate of inputs is made.
Heavy metals	Refers to the five metals whose direct discharges and riverine inputs were studied in this assessment namely: cadmium, copper, lead, mercury and zinc
Hg	Mercury
LOD	Limit of Detection. According to the definitions (IUPAC, IS/TR 13530), "the limit of detection (LOD) is, in broad terms, the smallest amount or concentration of an analyte in the test sample that can be reliably distinguished from zero".
LOQ	The limit of quantification (LOQ) is the smallest amount or concentration of analyte in the test sample which can be determined with a fixed precision, e.g. relative standard deviation $S_{rel} = 33,3 \%$. This means that a substance can only be correctly qualified from LODs, while it can only be quantified from LOQs.
Main river	A river to be monitored at least once a month (12 datasets) every year in accordance with the objectives of the Comprehensive Study on Riverine Inputs and Direct Discharges. Main rivers should be major load bearing rivers.
Monitored area	The catchment upstream of the river monitoring point.
Nutrients	Refers to the nutrients whose direct discharges and riverine inputs were examined in this assessment, namely total Nitrogen and total Phosphorus
Pb	Lead
RID	Comprehensive Study on Riverine Inputs and Direct Discharges (reference number: 1998-5), as amended by ASMO 2005 (Annex 5 to the ASMO 2005 Summary Record, ASMO 05/13/1).
Riverine inputs	A mass of a determinand carried to the Maritime Area by a watercourse (natural river or man-made watercourse) per unit of time
SPM	Suspended Particulate Matter
Total inputs	Sum of direct discharges and riverine inputs.
Total-N	Total Nitrogen
Total-P	Total Phosphorus
Tributary river	A river with separate catchment from a main river and with an outlet directly to the maritime area or to a main river downstream of a river monitoring point. A tributary river should be a minor load bearing river and can be sampled at a frequency determined by each Contracting Party.
Unmonitored area	Defined as any sub-catchment(s) located downstream of the riverine monitoring points within catchments and any areas between catchments. The unmonitored areas may contribute to the losses/discharges of substances downstream of the monitoring point or directly to the sea (OSPAR Maritime Area).
Zn	Zinc

Introduction

The RID Centre 2010 data report gives the annual overview tables (*hereafter* AA tables; Annex 2) of the national RID reporting in 2010 carried out by Contracting Parties across the OSPAR Convention area (see Figure 1) under the Comprehensive Study on Riverine Inputs and Direct Discharges (agreement 1998-5, update 2005).¹

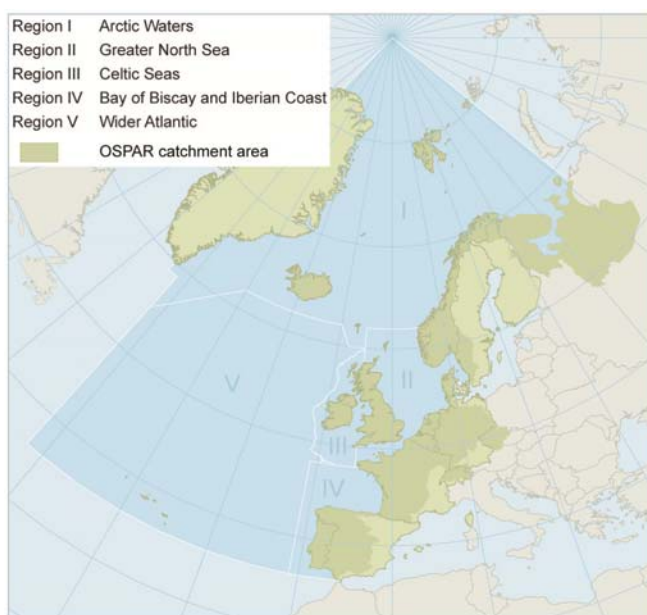


Figure 1: OSPAR maritime area, its five Regions and its catchment area. OSPAR Regions I: Arctic Waters, II: Greater North Sea, III: Celtic Seas, IV: Bay of Biscay and V: Wider Atlantic.

The RID Study forms one element within the wider Joint Assessment and Monitoring Programme of OSPAR. The purpose of the RID Study is to assess, as accurately as possible, all riverine inputs and direct discharges of selected pollutants to Convention waters on an annual basis. The RID Principles set out the monitoring regime to be employed for generating and reporting input data and to this end describes for example the relevant substances and river systems covered, sampling approach, locations and frequency, detection limits, calculation methodologies and quality assurance. Further details regarding the RID principles are given in Annex 1.

For the years 2005, 2006 and 2007, comprehensive reports were developed based on the RID data. Here, challenges of the RID programme were presented; including uncertainties, knowledge gaps, lack of documentation on harmonised practises, approaches and methodologies amongst Contracting Parties (Skarbøvik and Borgvang 2007; Borgvang et al. 2008; Borgvang et al. 2009a). In 2009, a RID Database on Access format was prepared; and since then most of the work of the RID data centre (Bioforsk) has focused on the installation and functioning of this database, as well as validation of historical (1989-2008) RID data. Thus, for the years 2008-2010, the reported data were presented without evaluations of the results. This decision was further supported by the fact that a comprehensive assessment and trend analysis on the RID Programme data from 1990 - 2006 was performed in 2009 (Borgvang et al. 2009b).

¹ At its Tenth Meeting (Lisbon, 1988) the Paris Commission¹ (PARCOM) adopted the Principles of the Comprehensive Study on Riverine Inputs (PARCOM 10/10/1, § 4.25 (e)). Such a comprehensive study was conducted for the first time in 1990. The RID Principles were reviewed in 1998 and 2005.

Submission of RID data for 2010

Tables 1 and 2 provide an overview of the status of submitted information by Contracting Parties (CPs) on which this report is based. All CPs except Denmark had a deadline of November 1st, whereas Denmark had a deadline of December 1st for submitting data and text reports. As in the two previous years, all countries were asked to report based on the template format generated by the RID database. All reported data were imported into the RID database, and thereafter annual overview tables (AA Tables 1a - 4b) and national data tables (Tables 5a – 9) were exported from the database. The database export files were all sent to the respective CPs for validation.

Table 1. Overview of submitted information from Contracting Parties.

Country	RID 2010 Report submitted	RID 2010 Data submitted	RID 2010 Data validated
Belgium	No	No	-
Denmark	No	No	-
France	Yes	Yes	Yes
Germany	No	No	-
Iceland	No	Yes	Yes
Ireland	Yes	Yes	Yes
Netherlands	Yes	Yes	Yes
Norway	Yes	Yes	Yes
Portugal	Yes	Yes	Yes
Spain	Yes	Yes	Yes
Sweden	Yes	Yes	Yes
United Kingdom	Yes	Yes	Yes

Table 2: Overview of information for 2010 on inputs to the OSPAR Maritime Area reported by Contracting Parties within the agreed deadline (green = data reported; NI = no information; NA = not applicable; red = no data submitted).

Country	Sewage effluents	Industrial effluents	Main rivers	Tributary rivers
Belgium				
Denmark				
France				
Germany				
Iceland	NI	NI		NI
Ireland				
Netherlands				
Norway				
Portugal	NI	NI		NI
Spain ¹				
Sweden				
UK ²				

¹ For direct discharges, Spain reports on calendar years (i.e. 2010), whereas for riverine inputs data are reported for hydrological years (i.e. Oct 2009 – Sept 2010).

² UK does not report inputs from main and tributary rivers separately, as they report on areas rather than individual rivers.

References

- Borgvang, S.A., Skarbøvik, E. and Pengerud, A. 2008. Comprehensive Study on Riverine Inputs and Direct Discharges (RID): Presentation and Assessment of the OSPAR Contracting Parties' RID 2006 Data. ISBN 978-1-906840-17-4. OSPAR Publication Number: 376/2008.
- Borgvang, S.A., Stålnacke, P.G. and Pengerud, A. 2009a. Comprehensive Study on Riverine Inputs and Direct Discharges (RID): Presentation and Assessment of the OSPAR Contracting Parties' RID 2007 Data.
- Borgvang, S.A. et al. 2009b. Trends in waterborne inputs. Assessment of riverine inputs and direct discharges of nutrients and selected hazardous substances to OSPAR maritime area in 1990-2006. OSPAR Commission 2009, Monitoring and Assessment Series no 448/2009; ISBN 978-1-906840-88-4. 113 pp.
- Skarbøvik, E. and Borgvang, S.A, 2007. Comprehensive Study on Riverine Inputs and Direct Discharges (RID): Overview of the RID 2005 Data and an Analysis of the Reliability, Accuracy, Comparability and Completeness of the Data OSPAR Commission. ISBN 978-1-905859-65-8, OSPAR Publication No 326.

Annex 1 Details about the RID Principles

1. Under the RID Principles, Contracting Parties should aim to monitor, on a regular basis, 90 % of the inputs of each selected pollutant.
2. The following determinants are to be monitored on a mandatory basis:

• Total Mercury (Hg) • Total Cadmium (Cd) • Total Copper (Cu) • Total Zinc (Zn) • Total Lead (Pb) • Gamma-HCH (lindane)	• Ammonia, expressed as N • Nitrates, expressed as N • Orthophosphates, expressed as P • Total N • Total P • Suspended particulate matter (SPM) • Salinity (in saline waters)
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3. The following determinants are recommended for monitoring on a voluntary basis:
 - a. Hydrocarbons, in particular PAHs² and mineral oil³ (strongly recommended);
 - b. PCBs (the following congeners: IUPAC Nos 28, 52, 101, 118, 153, 138, 180);
 - c. Other hazardous substances (particularly organohalogen compounds - in order to determine which organohalogen compounds should be included in future input studies)⁴.
4. Contracting Parties are requested to report the relevant data annually (by 1 November) and to provide, for a selection of their main rivers, information on the annual mean/median concentration of selected pollutant.
5. Sources for monitoring and reporting of direct discharges under the RID Principles include sewage effluents, industrial effluents and mariculture. As far as practicable, estimate inputs from unmonitored areas (including diffuse sources, and minor direct sources and rivers) should complement the percentage monitored to 100 %.
6. Contracting Parties are requested to report their annual RID data together with an explanatory text report using the reporting format appended to the RID Principles. The results of annual RID data reporting are published by OSPAR each year.
7. RID data are to be reviewed periodically with the objective of determining temporal and long-term trends of contaminant concentrations and inputs as a basis for trend assessment. Such an assessment of data collected under RID in 1990 – 2002 was carried out by the Environmental Assessment and Monitoring Committee (ASMO) in 2005 (publication number: 2005/233). A further assessment is currently being prepared for 2009.

² These are as follows: phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[a]pyrene, benzo[ghi]perylene, indeno[1,2,3-cd]pyrene.
³ Provided that a suitable method is available.

⁴ INPUT November 1995 agreed not to advocate routine monitoring of riverine inputs of pesticides Convention-wide, but to address specific requests from SIME or DIFF* on a case by case basis. (* Secretariat note: DIFF was discontinued by OSPAR 2000. The work formerly undertaken by DIFF has been carried out by SPDS until 2004/2005 and, since then, by HSC.)

Annex 2 Annual Overview Tables (AA Tables)

Table 1a	Information Received on Inputs to the Maritime Area of the OSPAR Convention in 2010
Table 1b	Determinands Reported by Contracting Parties in 2010
Table 2	Direct Discharges to the Maritime Area of the OSPAR Convention in 2010 by Country
Table 3	Riverine Inputs to the Maritime Area of the OSPAR Convention in 2010 by Country
Table 4a	Summary of Direct (Table 2) and Riverine (Table 3) Inputs to the Maritime Area of the OSPAR Convention in 2010 by Country
Table 4b	Summary of Direct and Riverine Inputs to the Maritime Area of the OSPAR Convention by Sea Area

Table 1a. Information Received on Inputs to the Maritime Area of the OSPAR Convention in 2010

Country	Direct Discharges		Coastal Areas	Riverine Inputs	
	Sewage Effluents	Industrial Effluents		Main Rivers	Tributary Rivers
Belgium					
- North Sea (BE)	NI	NI		NI	NI
Denmark					
- Skagerrak (DK)	NI	NI		NI	NI
- Kattegat (DK)	NI	NI		NI	NI
- North Sea (DK)	NI	NI		NI	NI
France					
- Channel	+	+		+	+
- Atlantic	+	+		+	+
Germany					
- North Sea (GER)	NI	NI		NI	NI
Iceland					
- Atlantic	NI	NI		+	NI
Ireland					
- Irish Sea	+	+		+	+
- Celtic Sea	+	+		+	+
- Atlantic	+	+		+	+
Netherlands					
- North Sea (NL)	NI	NI		+	+
Norway					
- Norwegian Sea (NO)	+	+		+	+
- Barents Sea (NO)	+	+		+	+
- Skagerrak (NO)	+	+		+	+
- North Sea (NO)	+	+		+	+
Portugal					
- Bay of Biscay and Iberian Coast	NI	NI		+	NI
Spain					
- Atlantic (ESP)	+	+		+	+
Sweden					
- Kattegat (SWE)	+	+		+	+
- Skagerrak (SWE)	+	+		+	+
UK					
- North Sea (North)	+	+		+	+
- North Sea (South)	+	+		+	+
- Channel	+	+		+	+
- Irish Sea	+	+		+	+
- Celtic Sea	+	+		+	+
- Atlantic	+	+		+	+

+ = Information available

NI = No information

Table 1b. Determinands reported by Contracting Parties in 2010

Country	Determinands													
	Cd	Hg	Cu	Pb	Zn	g-HCH	PCBs	NH ₄ -N	NO ₃ -N	PO ₄ -P	N-Tota	P-Tota	SPM	others
Belgium														
- direct inputs	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
- riverine inputs	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Denmark														
- direct inputs	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
- riverine inputs	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
France														
- direct inputs	+	+	+	+	+	+	NI	NI	NI	NI	+	+	+	
- riverine inputs	R+(4)	R+(4)	R+(3)	R+(4)	R+(3)	NI	NI	R+(4)	R+(3)	R+(3)	R+(3)	R+(3)	R+(3)	
Germany														
- direct inputs	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
- riverine inputs	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
Iceland														
- direct inputs	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
- riverine inputs	+	+	+	+	+	NI	NI	+	+	+	+	+	NI	
Ireland														
- direct inputs	+	NI	+	+	+	NI	NI	NI	NI	NI	+	+	+	
- riverine inputs	R+(4)	R+(4)	R+(3)	R+(4)	R+(3)	NI	NI	R+(3)	R+(3)	R+(3)	R+(3)	R+(3)	R+(4)	
Netherlands														
- direct inputs	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
- riverine inputs	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	
Norway														
- direct inputs	+	+	+	+	+	NI	+	+	+	+	+	+	+	As, Total Cr, Ni, TOC
- riverine inputs	R+(3)	R+(4)	R+(3)	R+(3)	R+(3)	R+(4)	R+(4)	R+(3)	R+(3)	R+(4)	R+(3)	R+(3)	R+(3)	As, Total Cr, Ni, TOC
Portugal														
- direct inputs	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	
- riverine inputs	R+	NI	R+	R+	R+	NI	NI	R+	R+	R+	R+	R+	R+	
Spain														
- direct inputs	R+	R+	R+	R+	R+	R+	R+	R+	R+	R+	R+	R+	R+	
- riverine inputs	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	R+(4)	
Sweden														
- direct inputs	R+	R+	R+	R+	R+	NI	NI	R+	NI	NI	R+	R+	NI	
- riverine inputs	R+(3)	R+(3)	R+(3)	R+(3)	R+(3)	NI	NI	R+(3)	R+(3)	R+(3)	R+(3)	R+(3)	NI	
UK														
- direct inputs	R+	R+	R+	R+	R+	R+	R+	R+	R+	R+	R+	R+	R+	
- riverine inputs	R+	R+	R+	R+	R+	R+	R+	R+	R+	R+	R+	R+	R+	

+ : Data provided

R: Estimate given as a range

(3) 70 % of measurements above detection limit

(4) Less than 70 % of measurements above detection limit

NI: No information

Table 2. Direct Discharges to the Maritime Area of the OSPAR Convention in 2010 by Country

Country	Region		Cd [t/a]	Hg [t/a]	Cu [t/a]	Pb [t/a]	Zn [t/a]	g-HCH [kg/a]	PCBs [kg/a]	NH4-N [kt/a]	NO3-N [kt/a]	PO4-P [kt/a]	N-Total [kt/a]	P-Total [kt/a]	SPM [kt/a]
Belgium	North Sea (BE)	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI
Denmark	Kattegat (DK)	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI
	North Sea (DK)	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI
	Skagerrak (DK)	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI
France	Atlantic	lower upper	0.017 0.017	0.002 0.002	0.106 0.106	0.131 0.131	1.612 1.612	1.2 1.2	0 0	0 0	0 0	0 0	2.084 2.084	0.135 0.135	2.271 2.271
	Channel	lower upper	0.09 0.09	0.015 0.015	1.669 1.669	0.886 0.886	7.915 7.915	0 0	0 0	0 0	0 0	0 0	1.793 1.793	0.231 0.231	4.162 4.162
Germany	North Sea (GER)	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI
Iceland	Atlantic	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI
Ireland	Atlantic	lower upper	0.007 0.007	NI NI	0.83 0.83	0.39 0.39	7.7 7.7	NI NI	NI NI	NI NI	NI NI	NI NI	0.702 0.702	0.206 0.206	4.323 4.323
	Celtic Sea	lower upper	0.023 0.023	NI NI	3.2 3.2	4.4 4.4	21.5 21.5	NI NI	NI NI	NI NI	NI NI	NI NI	2.671 2.671	0.654 0.654	18.59 18.59
	Irish Sea	lower upper	0.06 0.06	NI NI	7.5 7.5	3.3 3.3	63 63	NI NI	NI NI	NI NI	NI NI	NI NI	6.833 6.833	1.575 1.575	38.13 38.13
Netherlands	North Sea (NL)	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI
Norway ¹	Barents Sea (NO)	lower upper	NI NI	7E-04 7E-04	NI NI	NI NI	NI NI	NI NI	NI NI	0.187 0.187	0.012 0.012	0.019 0.019	0.249 0.249	0.032 0.032	0.005 0.005
	North Sea (NO)	lower upper	0.056 0.056	0.007 0.007	3.63 3.63	1.168 1.168	15.31 15.31	NI NI	0.742 0.742	2.995 2.995	0.2 0.2	0.271 0.271	3.993 3.993	0.452 0.452	13.67 13.67
	Norwegian Sea (N)	lower upper	0.051 0.051	0.003 0.003	0.784 0.784	1.629 1.629	3.264 3.264	NI NI	0 0	3.486 3.486	0.232 0.232	0.317 0.317	4.648 4.648	0.528 0.528	18.67 18.67
	Skagerrak (NO)	lower upper	0.06 0.06	0.009 0.009	9.96 9.96	0.568 0.568	14.38 14.38	NI NI	100.7 100.7	4.408 4.408	0.294 0.294	0.11 0.11	5.877 5.877	0.183 0.183	6.133 6.133
Portugal	Bay of Biscay and	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI
Spain ¹	Atlantic (ESP)	lower upper	0.513 7.534	0.389 9.079	2.197 21.04	5.681 34.28	34.27 55.71	0 4.177	0.72 12.8	9.836 10.91	1.373 1.677	0.512 0.515	14.41 15.23	2.309 2.49	411.6 418.7
Sweden ²	Kattegat (SWE)	lower upper	0.021 0.021	0.005 0.005	1.601 1.601	0.11 0.11	4.469 4.469	NI NI	NI NI	1.13 1.13	NI NI	NI NI	1.753 1.753	0.058 0.058	NI NI
	Skagerrak (SWE)	lower upper	5E-04 5E-04	0.001 0.001	0.22 0.22	0.404 0.404	0.705 0.705	NI NI	NI NI	0.194 0.194	NI NI	NI NI	0.352 0.352	0.009 0.009	NI NI
UK ¹	Atlantic	lower upper	0.368 0.37	0.042 0.042	9.544 9.544	2.22 2.22	42.06 42.06	1.779 1.803	0 0	5.602 5.602	1.213 1.22	1.185 1.185	8.718 8.721	1.677 1.687	22.1 22.15
	Celtic Sea	lower upper	0.083 0.114	0.007 0.009	1.573 1.602	1.493 1.926	40.3 40.42	0.008 1.834	0 0.246	3.678 3.718	0.964 1.018	0.317 0.342	4.495 4.551	0.317 0.342	12.19 12.19
	Channel	lower upper	0.009 0.015	0.004 0.005	5.718 6.47	0.84 0.976	13.43 13.43	0.113 5.414	0.154 6.441	5.493 5.534	2.386 2.434	0.731 0.779	8.214 8.239	0.731 0.779	13.04 13.07
	Irish Sea	lower upper	1.05 1.088	0.051 0.055	3.405 3.408	2.622 2.64	17.08 17.4	0 7E-04	0 0.397	0.398 0.419	0.342 0.358	0.258 0.258	0.846 0.877	0.275 0.278	8.027 8.202
	North Sea (North)	lower upper	0.031 0.037	0.019 0.021	16.71 16.71	1.921 1.958	30.57 30.57	2.778 7.105	0.023 8.18	9.404 9.411	3.177 3.222	1.406 1.421	15.65 15.65	2.037 2.052	27.55 27.58
	North Sea (South)	lower upper	0.082 0.121	0.088 0.094	17.82 17.83	3.583 4.219	48.84 49.56	0 19.74	0 31.58	5.03 5.05	8.757 8.783	1.546 1.549	14.99 15	1.546 1.549	157.2 157.3

¹Norway, Spain and UK also report inputs from aquaculture/fish farming. AA Table 2 is generated by the RID database as the sum of national data tables 5a and 5b. As inputs from aquaculture/fish farming are reported in other tables (5c or 5d) these inputs are not included in the totals presented here.

²Sweden reports inputs from stormwater overflows in addition to sewage effluents in table 5a. As table 5a is taken into account when generating AA Table 2 (cf. footnote 1), the totals presented here do also include this additional source reported by Sweden.

Table 3. Riverine Inputs to the Maritime Area of the OSPAR Convention in 2010 by Country

Country	Sea Area		Cd [t/a]	Hg [t/a]	Cu [t/a]	Pb [t/a]	Zn [t/a]	g-HCH [kg/a]	PCBs [kg/a]	NH4-N [kt/a]	NO3-N [kt/a]	PO4-P [kt/a]	N-Total [kt/a]	P-Total [kt/a]	SPM [kt/a]
Belgium	North Sea (BE)	lower	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
		upper	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Denmark	Kattegat (DK)	lower	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
		upper	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
	North Sea (DK)	lower	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
		upper	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
	Skagerrak (DK)	lower	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
		upper	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
France ¹	Atlantic	lower	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
		upper	NI	NI	NI	NI	NI	NI	NI	4.405	245.4	2.827	321.7	6.138	1690
	Channel	lower	0	0	55.89	37.93	238.2	NI	NI	4.598	139.8	1.836	132.3	3.059	555.7
		upper	17.18	8.588	56.96	38.99	238.7	NI	NI	4.788	139.8	1.932	160	3.068	555.8
Germany	North Sea (GER)	lower	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
		upper	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Iceland	Atlantic	lower	0.037	0.024	5.777	0.469	19.36	NI	NI	NI	0.319	0.244	1.149	0.454	NI
		upper	0.037	0.024	5.777	0.469	19.36	NI	NI	NI	0.319	0.244	1.149	0.454	NI
Ireland	Atlantic	lower	0	0	26.59	0.462	64.84	NI	NI	0.224	7.554	0.317	13.65	0.538	77.78
		upper	1.396	0.994	29.81	10.18	66.83	NI	NI	0.5	8.161	0.336	13.93	0.545	151.3
	Celtic Sea	lower	0.017	0.007	35.11	3.747	134.4	NI	NI	1.067	43.98	0.533	54.95	0.77	91.72
		upper	2.194	1.7	40.53	20.15	136	NI	NI	1.079	43.98	0.547	55.66	0.812	117.9
	Irish Sea	lower	0.271	0	17.23	3.043	118	NI	NI	0.43	17.18	0.136	21.16	0.256	56.21
		upper	0.807	0.436	18.57	6.85	118.3	NI	NI	0.435	17.18	0.142	21.16	0.266	68.57
Netherlands	North Sea (NL)	lower	2.169	0.997	307	150.9	1204	34.07	46.66	9.787	214.6	5.992	287.7	11.6	1644
		upper	5.528	1.029	308.3	152.3	1223	35.18	50.07	9.894	214.6	5.995	289.1	12.68	1657
Norway	Barents Sea (NO)	lower	0.234	0.009	35.47	2.784	38.17	0	0	0.169	0.425	0.033	2.863	0.083	21.46
		upper	0.267	0.022	35.48	2.801	38.19	0.57	3.992	0.171	0.427	0.036	2.863	0.084	21.5
	North Sea (NO)	lower	0.242	0.026	19.64	5.547	61.75	0	0	0.309	4.285	0.078	7.773	0.182	70.38
		upper	0.267	0.046	19.66	5.548	61.77	0.415	2.907	0.313	4.285	0.083	7.773	0.183	70.39
	Norwegian Sea (NO)	lower	0.3	0.027	55.2	3.88	94.38	0	0	0.332	3.11	0.364	8.553	0.556	381.1
		upper	0.399	0.061	55.21	3.9	94.4	1.214	8.497	0.352	3.114	0.373	8.558	0.558	381.2
	Skagerrak (NO)	lower	1.006	0.017	66.73	13.64	261.6	0	0	1.12	14.92	0.245	26.31	0.603	258.5
		upper	1.023	0.067	66.73	13.64	261.6	9.923	69.46	1.122	14.92	0.254	26.31	0.603	258.5
Portugal	Bay of Biscay and Iberian Coast (PO)	lower	0.1	NI	4.09	2.05	18.4	NI	NI	0.96	2.59	0.26	4.09	0.43	15.54
		upper	2.04	NI	81.59	40.8	567.5	NI	NI	3.9	37.62	7.58	61.19	11.3	713.7
Spain	Atlantic (ESP)	lower	0.246	0.315	45.13	1.13	122.5	0	0	2.818	28.17	0.538	25.75	1.107	261.4
		upper	8.23	0.767	144.3	24.37	325.5	45.43	57.43	2.951	28.19	0.951	26.36	1.501	279.5
Sweden ²	Kattegat (SWE)	lower	0.369	0.058	38.9	11.04	105	NI	NI	1.048	16.9	0.28	27.34	0.672	NI
		upper	0.369	0.058	38.9	11.04	105	NI	NI	1.048	16.9	0.28	27.34	0.672	NI
	Skagerrak (SWE)	lower	0.032	0.008	2.587	0.69	8	NI	NI	0.107	0.638	0.03	1.625	0.061	NI
		upper	0.032	0.008	2.587	0.69	8	NI	NI	0.107	0.638	0.03	1.625	0.061	NI
UK	Atlantic	lower	0.124	0.05	23.85	32.65	62.52	NI	NI	0.59	6.852	0.664	10	0.957	163.5
		upper	0.41	0.085	23.86	32.92	64.76	NI	NI	0.814	6.997	0.71	10.24	1.003	168.7
	Celtic Sea	lower	0.328	0.025	32.88	18.62	147.3	0	0.026	0.757	31.84	0.981	32.86	0.981	270.3
		upper	1.014	0.106	33.8	26.12	157.1	32.11	30.93	0.845	31.84	1.027	32.89	1.027	272.5
	Channel	lower	0.405	0.031	36.88	17.35	110	0.113	0	0.287	21.1	0.435	23.26	0.435	121.4
		upper	0.545	0.079	36.91	19.06	116.1	24.16	55.35	0.354	21.1	0.454	23.26	0.454	124.1
	Irish Sea	lower	0.944	0.241	72.73	51.34	288.8	0.073	0.203	2.282	29.12	1.955	35.82	2.025	418.9
		upper	1.453	0.313	73.22	55.04	296.6	32.76	47.4	2.552	29.23	2.042	35.84	2.108	426.8
	North Sea (North)	lower	0.567	0.077	40.6	41.05	214.5	0	0	0.801	28	0.516	35.75	1.157	304.6
		upper	0.692	0.153	40.6	41.46	215.7	8.794	20.63	0.877	28.15	0.609	35.78	1.224	309.2
	North Sea (South)	lower	0.671	0.025	44.84	42.11	218.6	0.047	0.272	1.587	71.89	2.63	73.38	2.63	200.4
		upper	1.041	0.117	44.84	43.22	222.7	33.49	72.66	1.61	71.89	2.646	73.39	2.646	202.5

¹ Due to a large number of missing data, annual totals are not calculated for certain determinants even though some data exists.

² Sweden reports inputs from unmonitored areas in addition to tributary rivers in Table 6b, respectively. As AA Table 3 is generated by the RID database as the sum of national data tables 6a and 6b, the totals presented here do also include inputs from unmonitored areas for Sweden.

Table 4a. Sum of Direct (Table 2) and Riverine (Table 3) Inputs to the Maritime area of the OSPAR Convention in 2010 by Country

See footnotes to Tables 2 and 3 for explanations to possible deviations from the reported data.

Sea Area	Region		Cd [t/a]	Hg [t/a]	Cu [t/a]	Pb [t/a]	Zn [t/a]	g-HCH [kg/a]	PCBs [kg/a]	NH4-N [kt/a]	NO3-N [kt/a]	PO4-P [kt/a]	N-Total [kt/a]	P-Total [kt/a]	SPM [kt/a]
Belgium	North Sea (BE)	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI
Denmark	Kattegat (DK)	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI
	North Sea (DK)	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI
	Skagerrak (DK)	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI
France ¹	Atlantic	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI 4.405	NI 245.4	NI 2.827	NI 323.8	NI 6.273	NI 1693
	Channel	lower upper	0.09 17.27	0.015 8.604	57.56 58.63	38.82 39.88	246.1 246.6	NI NI	NI NI	4.598 4.788	139.8 139.8	1.836 1.932	134.1 161.8	3.29 3.299	559.9 560
Germany	North Sea (GER)	lower upper	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI	NI NI
Iceland	Atlantic	lower upper	0.037 0.037	0.024 0.024	5.777 5.777	0.469 0.469	19.36 19.36	NI NI	NI NI	NI NI	0.319 0.319	0.244 0.244	1.149 1.149	0.454 0.454	NI NI
Ireland	Atlantic	lower upper	0.007 1.403	0 0.994	27.42 30.64	0.852 10.57	72.54 74.53	NI NI	NI NI	0.224 0.5	7.554 8.161	0.317 0.336	14.35 14.63	0.744 0.751	82.11 155.6
	Celtic Sea	lower upper	0.04 2.217	0.007 1.7	38.31 43.73	8.147 24.55	155.9 157.5	NI NI	NI NI	1.067 1.079	43.98 43.98	0.533 0.547	57.62 58.33	1.424 1.466	110.3 136.5
	Irish Sea	lower upper	0.331 0.867	0 0.436	24.73 26.07	6.343 10.15	181 181.3	NI NI	NI NI	0.43 0.435	17.18 17.18	0.136 0.142	27.99 27.99	1.831 1.841	94.34 106.7
Netherlands	North Sea (NL)	lower upper	2.169 5.528	0.997 1.029	307 308.3	150.9 152.3	1204 1223	34.07 35.18	46.66 50.07	9.787 9.894	214.6 214.6	5.992 5.995	287.7 289.1	11.6 12.68	1644 1657
Norway	Barents Sea (NO)	lower upper	0.234 0.267	0.01 0.023	35.47 35.48	2.784 2.801	38.17 38.19	0 0.57	0 3.992	0.355 0.358	0.437 0.44	0.053 0.055	3.112 3.112	0.116 0.117	21.46 21.51
	North Sea (NO)	lower upper	0.298 0.322	0.033 0.053	23.27 23.29	6.715 6.717	77.07 77.08	0 0.415	0.742 3.649	3.304 3.308	4.485 4.485	0.35 0.354	11.77 11.77	0.635 0.636	84.05 84.05
	Norwegian Sea (NO)	lower upper	0.351 0.45	0.03 0.064	55.98 55.99	5.509 5.528	97.65 97.67	0 1.214	0 8.497	3.818 3.838	3.342 3.346	0.681 0.689	13.2 13.21	1.084 1.086	399.7 399.9
	Skagerrak (NO)	lower upper	1.066 1.083	0.026 0.076	76.69 76.69	14.21 14.21	275.9 275.9	0 9.923	100.7 170.1	5.528 5.531	15.21 15.21	0.355 0.364	32.18 32.18	0.786 0.786	264.7 264.7
Portugal	Bay of Biscay and Iberian Coast (PO)	lower upper	0.1 2.04	NI NI	4.09 81.59	2.05 40.8	18.4 567.5	NI NI	NI NI	0.96 3.9	2.59 37.62	0.26 7.58	4.09 61.19	0.43 11.3	15.54 713.7
Spain	Atlantic (ESP)	lower upper	0.76 15.76	0.704 9.845	47.33 165.3	6.81 58.65	156.8 381.2	0 49.6	0.72 70.24	12.65 13.86	29.54 29.87	1.05 1.466	40.16 41.58	3.416 3.991	673 698.2
Sweden	Kattegat (SWE)	lower upper	0.39 0.39	0.063 0.063	40.5 40.5	11.15 11.15	109.5 109.5	NI NI	NI NI	2.178 2.178	16.9 16.9	0.28 0.28	29.1 29.1	0.73 0.73	NI NI
	Skagerrak (SWE)	lower upper	0.032 0.032	0.009 0.009	2.807 2.807	1.094 1.094	8.705 8.705	NI NI	NI NI	0.301 0.301	0.638 0.638	0.03 0.03	1.977 1.977	0.07 0.07	NI NI
UK	Atlantic	lower upper	0.492 0.781	0.092 0.127	33.4 33.41	34.87 35.14	104.6 106.8	1.779 1.803	0 0	6.192 6.416	8.064 8.216	1.849 1.895	18.72 18.96	2.634 2.69	185.6 190.9
	Celtic Sea	lower upper	0.411 1.128	0.032 0.115	34.45 35.4	20.11 28.05	187.6 197.5	0.008 33.95	0.026 31.18	4.436 4.564	32.8 32.86	1.299 1.369	37.36 37.44	1.299 1.369	282.5 284.7
	Channel	lower upper	0.413 0.56	0.035 0.084	42.6 43.38	18.19 20.04	123.4 129.5	0.226 29.57	0.154 61.79	5.78 5.888	23.49 23.53	1.166 1.233	31.47 31.5	1.166 1.233	134.4 137.2
	Irish Sea	lower upper	1.994 2.541	0.292 0.368	76.14 76.63	53.97 57.68	305.9 314	0.073 32.76	0.203 47.8	2.68 2.971	29.47 29.58	2.213 2.3	36.67 36.71	2.3 2.386	427 435
	North Sea (North)	lower upper	0.598 0.729	0.096 0.174	57.31 57.31	42.97 43.42	245.1 246.3	2.778 15.9	0.023 28.81	10.21 10.29	31.18 31.37	1.922 2.03	51.4 51.42	3.194 3.276	332.1 336.8
	North Sea (South)	lower upper	0.753 1.162	0.113 0.211	62.66 62.67	45.69 47.44	267.4 272.3	0.047 53.23	0.272 104.2	6.617 6.66	80.64 80.67	4.176 4.195	88.37 88.39	4.176 4.195	357.6 359.8

¹ Due to a large bay of missing data, annual totals are not calculated for certain determinants even though some data exists.

Table 4b. Sum of Direct and Riverine Inputs to the Maritime area of the OSPAR Convention in 2010 by Sea Area

See footnotes to Tables 2 and 3 for explanations to possible deviations from the reported data.

Sea Area		Cd [t/a]	Hg [t/a]	Cu [t/a]	Pb [t/a]	Zn [t/a]	g-HCH [kg/a]	PCBs [kg/a]	NH4-N [kt/a]	NO3-N [kt/a]	PO4-P [kt/a]	N-Total [kt/a]	P-Total [kt/a]	SPM [kt/a]
Arctic Ocean	lower	0.234	0.01	35.47	2.784	38.17	0	0	0.355	0.437	0.053	3.112	0.116	21.46
	upper	0.267	0.023	35.48	2.801	38.19	0.57	3.992	0.358	0.44	0.055	3.112	0.117	21.51
Atlantic Ocean ¹	lower	0.499	0.092	60.81	35.72	177.1	1.779	0	6.417	15.62	2.166	33.07	3.378	267.8
	upper	2.183	1.121	64.05	45.71	181.3	1.803	0	6.916	16.38	2.232	33.59	3.442	346.5
Bay of Biscay and Iberian Coast	lower	0.882	0.794	115.6	9.398	269.9	1.2	0.72	18.67	277.5	3.449	351.7	10.3	2388
	upper	17.82	9.848	311.6	112.5	1066	50.8	70.24	22.17	312.9	11.87	426.5	21.56	3104
Celtic Sea	lower	0.452	0.04	72.77	28.26	343.5	0.008	0.026	5.502	76.78	1.832	94.98	2.723	392.8
	upper	3.345	1.814	79.13	52.6	355	33.95	31.18	5.643	76.83	1.916	95.77	2.835	421.2
Channel	lower	0.503	0.051	100.2	57.01	369.6	0.226	0.154	10.38	163.3	3.002	165.6	4.457	694.3
	upper	17.83	8.688	102	59.91	376.1	29.57	61.79	10.68	163.4	3.165	193.3	4.532	697.2
Irish Sea	lower	2.326	0.292	100.9	60.31	486.9	0.073	0.203	3.11	46.65	2.349	64.66	4.13	521.3
	upper	3.409	0.804	102.7	67.83	495.2	32.76	47.8	3.406	46.77	2.442	64.7	4.227	541.7
Kattegat	lower	0.39	0.063	40.5	11.15	109.5	NI	NI	2.178	16.9	0.28	29.1	0.73	NI
	upper	0.39	0.063	40.5	11.15	109.5	NI	NI	2.178	16.9	0.28	29.1	0.73	NI
North Sea (main body)	lower	3.817	1.24	450.3	246.3	1793	36.89	47.69	29.91	330.9	12.44	439.3	19.61	2418
	upper	7.741	1.467	451.5	249.9	1819	104.7	186.8	30.15	331.1	12.57	440.7	20.78	2438
Norwegian Sea	lower	0.351	0.03	55.98	5.509	97.65	0	0	3.818	3.342	0.681	13.2	1.084	399.7
	upper	0.45	0.064	55.99	5.528	97.67	1.214	8.497	3.838	3.346	0.689	13.21	1.086	399.9
Skagerrak	lower	1.098	0.035	79.49	15.3	284.6	0	100.7	5.829	15.85	0.385	34.16	0.856	264.7
	upper	1.115	0.084	79.5	15.3	284.6	9.923	170.1	5.831	15.85	0.394	34.16	0.856	264.7

¹ The totals presented for the Atlantic Ocean do also include the data reported by France, even though NI is indicated in tables 3 and 4b due to a large number of missing data.

Annex 3 Statistical information on river catchment areas

Statistical Information on River Catchment Areas

River	Catchment area	Countries	Share in catchment area		Population (1990)		LTA*	LTA-period
	[km2]		[km2]	[%]	[10E6]	[%]	[1000 m3/d]	[a]
Statistical Information provided by Belgium:								
Coastal Area	2675				~0.497		2367	NI
Western	1689	Belgium	>1082	NI	>0,305	NI	708	
Middle	499	France	NI	NI	NI	NI		
Eastern	487	Belgium			0.014		501	
		Belgium			0.177		1158	
Scheldt basin								
Scheldt	22004				~10		11139	1949-2008
		Belgium (1)	13324	61	6.9			
		France	6680	30	~2,7			
		Netherlands (1)	2000	9	0.4			
		(1) Ghent-Terneuzen canal comprised						
Ghent-Terneuzen canal	NI						1 885	1991-2008
		Belgium	NI		NI			
		Netherlands	NI		NI			
Statistical Information provided by Denmark:								
Vid å	248.3	DK	248	81			300.5	78-07
Brøns å	94.1	DK	94	100		100	107.0	74-07
Ribe å	675	DK	675	100		100	756.6	33-07
Kongeaen	426.6	DK	427	100		100	627.0	90-07
Sneum å	223	DK	223	100		100	283.1	66-07
Varde å	815	DK	815	100		100	1048.8	69-07
Skjern å	1558.4	DK	1558	100		100	2108.2	74-07
Stor å	1096.7	DK	1097	100		100	1427.3	71-07
Brede å	290	DK	290	100		100	311.0	22-07
Omme å	612	DK	612	100		100	743.1	83-07
Grøn å	563	DK	563	100		100	606.2	59-07
Total	10809	=Total of Danish rivers discharging to the North Sea					8230	71-90
Liver å	249.8	DK	250	100		100	226.4	89-07
Uggerby å	347.5	DK	348	100		100	351.3	89-07
	1097	=Total of Danish rivers discharging to the Skagerrak					863	71-90
Karup å	626.8	DK	527	100		100	635.2	86-07
Jordbro å	110.9	DK	111	100		100	110.7	80-07
Skals å	556.4	DK	556	100		100	389.7	73-07
Simmersted å	214.9	DK	215	100		100	207.6	92-07
Elling å	132.2	DK	132	100		100	123.2	89-07
Voer å	238.7	DK	239	100		100	247.6	89-07
Ger å	153.8	DK	154	100		100	149.6	85-07
Lindeborg å	317.8	DK	318	100		100	310.3	83-07
Haslevgard å	75	DK	75	100		100	62.3	89-07
Kastbjerg å	96.3	DK	96	100		100	70.1	76-07
Guden å	2602.9	DK	2 603	100		100	2837.8	78-07
Ry å	285	DK	285	100		100	264.7	72-07
	15828	=Total of Danish rivers discharging to the Kattegat					5284	71-90

River	Catchment area	Countries	Share in catchment area		Population (1990)		LTA*	LTA-period
	[km2]		[km2]	[%]	[10E6]	[%]	[1000 m3/d]	[a]
Statistical Information provided by France:								
Coastal area	2308	France		100	0.61	100	2764	1989 - 2006
Canche	3895	France		100	0.38	100	4579	1961 - 2006
Somme	5916	France		100	0.59	100	3197	1963 - 2006
Béthune et Bresle	2153	France		100	0.16	100	2074	1998 - 2006
Saane	1718	France		100	0.16	100	2938	1996 - 2006
Seine	64953	France		100	13.94	100	44842	1974 - 2006
Andelle	789	France		100	0.05	100	691	1972 - 2006
Eure	6023	France		100	0.60	100	2246	1971 - 2006
Coastal area	2439	France		100	0.93	100	1599	1989 - 2006
Risle	2545	France		100	0.16	100	1642	1976 - 2006
Dives	1815	France		100	0.11	100	1296	1968 - 2006
Douve	1474	France		100	0.08	100	625	1989 - 2006
Orne	2976	France		100	0.40	100	2506	1984 - 2006
Seulles	547	France		100	0.06	100	346	1970 - 2006
Touques	1311	France		100	0.10	100	1037	1981 - 2006
Vire	2077	France		100	0.15	100	2246	1993 - 2006
Coastal area	1302	France		100	0.16	100	1174	1989 - 2006
Sélune et Sée	1623	France		100	0.09	100	1987	1994 - 2006
Sienne	1135	France		100	0.09	100	1328	1989 - 2006
Aulne	4312	France		100	0.52	100	6653	1969 - 2006
Rance et Couesnon	2848	France		100	0.27	100	2160	1983 - 2006
Coastal area	4961	France		100	0.49	100	3654	1989 - 2006
	119122	=Total of rivers discharging in ZONE II			20.10		91 582	
Blavet et Scorff	4649	France		100	0.50	100	5702	1982 - 2006
Coastal area	2868	France		100	0.32	100	4558	1989 - 2006
Vilaine	10144	France		100	0.90	100	5443	2001 - 2006
Coastal area	3636	France		100	0.82	100	2847	1989 - 2006
Loire	110178	France		100	6.67	100	73526	1868 - 2006
Sèvre Nantaise	4664	France		100	0.52	100	4234	1993 - 2006
Lay	4522	France		100	0.39	100	3456	1971 - 2006
Sèvre Niortaise	4363	France		100	0.42	100	4752	1992 - 2006
Coastal area	291	France		100	0.02	100	239	1989 - 2006
Boutonne	2141	France		100	0.14	100	1754	1989 - 2006
Charente	7526	France		100	0.43	100	5357	1979 - 2006
Coastal area	1172	France		100	0.09	100	446	1989 - 2006
Seudre	988	France		100	0.06	100	432	1971 - 2006
Eyre	2036	France		100	0.03	100	1814	1967 - 2006
Coastal area	2810	France		100	0.10	100	2264	1989 - 2006
Dordogne	14605	France		100	0.55	100	21859	1997 - 2006
Isle	8472	France		100	0.40	100	6912	1971 - 2006
Coastal area	870	France		100	0.09	100	647	1989 - 2006
Dropt	2672	France		100	0.21	100	1989	1989 - 2006
Garonne	38227	France		100	2.24	100	40003	1966 - 2006
Lot	11541	France		100	0.35	100	12614	2000 - 2006
Coastal area	3875	France		100	0.75	100	10983	1989 - 2006
Coastal area	3105	France		100	0.15	100	2501	1989 - 2006
Adour	7977	France		100	0.37	100	7690	1920 - 2006
Bidouze	1041	France		100	0.04	100	938	1989 - 2006
Gaves réunis	5504	France		100	0.32	100	17453	1925 - 2006
Luy	1367	France		100	0.10	100	1814	1966 - 2006
Nive	1153	France		100	0.12	100	3197	1968 - 2006
Coastal area	644	France		100	0.10	100	1825	1989 - 2006
	263040	=total of rivers discharging in ZONE IV			17.19		247 250	
Statistical Information provided by Germany:								
Ems	15552						7690	1941-2006
		Germany	13152	85.00	3.75	85		
		Netherlands	2400	15.00	0.6	15		
Weser	46306	Germany	-	-	9.0	-	31541	1941-2003
Elbe	148268		148268	100	25.11	-	74500	1926-2003
		Germany	96932	65.38	19.09	76.03		
		Czech Republic	50176	33.84	5.97	23.78		
		Austria	920	0.62	0.05	0.20		
		Poland	240	0.16	NI	NI		
Eider	2065	Germany	-	-	0.159	-	2391	1974-2006

River	Catchment area	Countries	Share in catchment area		Population (1990)		LTA*	LTA-period
	[km2]		[km2]	[%]	[10E6]	[%]	[1000 m3/d]	[a]
Statistical Information provided by Ireland:								
Boyne	2695	Ireland	-	-	NI	-	3280	1940-2006
Liffey	1256	Ireland	-	-	NI	-	1459	1900-2006
								1956-2006
Avoca	652	Ireland	-	0	NI	-	1562.112	1986-2006
Slaney	1762	Ireland	-	-	NI	-	3208.032	1990-2006
	6365	=Total of main Irish rivers discharging to the Irish Sea						
Barrow	3067	Ireland	-	-	NI	-	3784.32	1996-2006
Nore	2530	Ireland	-	-	NI	-	3602.016	1972-2006
Suir	3610	Ireland	-	-	NI	-	5889.024	1972-2006
								1953-2006
Blackwater	3324	Ireland	-	-	NI	-	7521.984	1955-2006
Lee	1253	Ireland	-	-	NI	-	3435.264	1957-2006
Bandon	608	Ireland	-	-	NI	-	1858	1975-2006
Deel	486	Ireland	-	-	NI	-	624.672	1982-2006
Maigue	1052	Ireland	-	-	NI	-	1513.728	1990-2006
Shannon Old Chan.	11700	Ireland	-	-	NI	-	4499.712	1990-2006
Shannon Tailrace		Ireland	-	-		-	13307.33	1947-2006
Fergus	1042	Ireland	-	-	NI	-	1 598	1956-2006
	28672	=Total of main Irish rivers discharging to the Celtic Sea						
								1973-06 excl.
Corrib	3138	Ireland	-	-	NI	-	9011.52	86-90, 92-93
Moy	2086	Ireland	-	-	NI	-	5405.184	1974-2006
Erne	4372	Ireland/UK	2572/1800	60/40	NI	-	7 333	1951-2006
	9596	=Total of main Irish rivers dischrching to the Atlantic						
Statistical Information provided by The Netherlands (with assistance from Germany and Belgium)								
Rhine	185000				2) 55.6		4) 198720	1901-1995
		Switzerland	1) 28000	15	3.0	6		
		France	24000	13	3.7	7		
		Luxembourg	2500	1	0.3	1		
		Germany	105900	57	32.5	65		
		Netherlands	21000	11	10.9	21		
		Belgium	700	0				
		Austria	2500	1				
		Liechtenstein	300	0				
		Italy	100	0				
Meuse	33500				3) 7.15		5) 28080	1911-1995
		France	8500	25	0.50			
		Luxembourg	100	0	0.05			
		Belgium	13150	39	2.00			
		Germany	4300	13	1.00			
		Netherlands	7400	22	3.60			
Scheldt	22004				-10		9331	1949-1995
		France	6680	30.00	-2.7	-27		
		Belgium	13324	61.00	6.9	69		
		Netherlands	2000	9.00	0.4	4		
Ems	15552						7690	1941-2006
		Germany	13152	85.00	3.75	85		
		Netherlands	2400	15.00	0.6	15		
1) Catchment areas rounded off to the nearest hundred km2								
2) Population Rhine catchment per country requires further analysis								
3) Population Meuse catchment: rough estimates								
4) Estimated discharge at outlet: 2.300 m3/s * 24 h/d * 3600 s/h								
5) Estimated discharge at outlet: 325 m3/s * 24 h/d * 3600 s/h								
Statistical Information provided by Norway:								
Glomma (1)	41918	Norway		100.00	0.62	100	61350	1961-1990
Drammenselva (2)	17034	Norway		100.00	0.2	100	28850	1961-1990
Numedalslågen (3)	5577	Norway		100.00	0.04	100	10200	1961-1990
Skienelva (4)	10772	Norway		100.00	0.11	100	23535	1961-1990
Otra (5)	3738	Norway		100.00	0.03	100	12870	1961-1990
	79039	=Total of Norwegian rivers discharging to the Skagerrak						
Orreelva (6)	105	Norway		100.00	0.01	100	335	1961-1990
Suldalslågen (7)	1457	Norway		100.00	0.003	100	7420	1961-1990
	1562	=Total of Norwegian rivers discharging to the North Sea						
Orkla (8)	3053	Norway		100.00	0.02	100	5710	1961-1990
Vefsna (9)	4122	Norway		100.00	0.01	100	15655	1961-1990
	7175	=Total of Norwegian rivers discharging to the Norwegian Sea						
Altaelva (10)	7373	Norway		100.00	0.005	100	7495	1961-1990
	95149	Total catchment for main rivers discharging to all four regions						
	126706	Total catchment for tributary rivers discharging to all four regions						
	221855	Total catchment for monitored rivers						
Statistical Information provided by Portugal:								
Tejo	80149	Portugal	24380	30.8	2.89	32.0	15900	50
		Spain	55769	69.2	6.14	68.0	34800	50
Douro	97600	Portugal	18600	19.1	1.76	43.5	22500	50
		Spain	79000	80.9	2.28	56.5	40900	50
Miño/Minho	17000	Portugal	900	5.3	0.07	7.9	6000	15
		Spain	16100	94.7	0.86	92.1	29000	15

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River	Catchment area	Countries	Share in catchment area		Population (1990)		LTA*	LTA-period
	[km2]		[km2]	[%]	[10E6]	[%]	[1000 m3/d]	[a]
Statistical Information provided by Spain:								
Oyarzun	74	Spain	74	100	0.055	100	166	
Urumea	266	Spain	266	100	0.176	100	633	
Oria	860	Spain	860	100	0.020	100	740	
Cadagua		Spain						
Asua		Spain						
Galindo		Spain						
Ibaizabal		Spain						
Urola	342	Spain	342	100	0.082	100	447	
Deva	531	Spain	531	100	0.146	100	694	
Artibay	106	Spain	106	100	0.016	100	NI	
Lea	81	Spain	81	100	0.010	100	NI	
Oca	132	Spain	132	100	0.022	100	NI	
Butron	175	Spain	175	100	0.024	100	NI	
Barbadun	135	Spain	135	100	0.020	100	NI	
Nervión	1764	Spain	1764	100	0.997	100	1 105	
Pas	620	Spain	606	97				
Eo	818	Spain	715	87				
Saja	955	Spain	955	100	0.104	100	1 166	
Nalón	4866	Spain	4866	100	0.539	100	6 977	
Miera	291	Spain	291	100	0.016	100	352	
Sella	1246	Spain	1246	100	0.035	100	832	
Masma	291	Spain	291	100	0.014	100	404	1970-2005
Oro	189	Spain	189	100	0.007	100	389	1970-2005
Landro	270	Spain	270	100	0.017	100	629	1975-2005
Sor	202	Spain	202	100	0.007	100	528	1996-2005
Mera	127	Spain	127	100	0.007	100	435	1970-2005
Forcadas	68	Spain	68	100	0.000	100	183	1970-2005
Grande de Jubia	182	Spain	182	100	0.004	100	318	1970-2005
Belelle	60	Spain	60	100	0.003	100	1 484	1970-2005
Eume	470	Spain	470	100	0.013	100	1 696	1970-2005
Mandeo	457	Spain	457	100	0.039	100	771	1970-2005
Mero	345	Spain	345	100	0.042	100	456	1984-2005
Allones	516	Spain	516	100	0.049	100	988	1970-2005
Grande	283	Spain	283	100	0.002	100	647	1970-2005
Castro	140	Spain	140	100	0.004	100	167	1970-2005
Jallas	504	Spain	504	100	0.022	100	739	1970-2005
Tambre	1530	Spain	1530	100	0.059	100	3828	1994-2005
Furelos		Spain						
Deza		Spain						
Traba	122	Spain	122	100	0.004	100	316	1970-2005
Ulla	2803	Spain	2803	100	0.104	100	1337	1971-2005
	156	Spain	156	100				
Umia	440	Spain	440	100	0.052	100	846	1970-2005
Lerez	450	Spain	450	100	0.085	100	1249	1970-1999
Verdugo	334	Spain	334	100	0.021	100	484	1970-2005
Miño	17247	Spain	16347	94.8	0.881		25716	1975-95
		Portugal	900	5.2				
Duero	97670	Spain	78960	80.8	3.093			
		Portugal	18710	19.2				
Tajo	80190	Spain	55810	69.6	6.459			
		Portugal	24380	30.4				
Guadiana	67122	Spain	55597	82.8	1.800		8556	1.912 - 1.995
		Portugal	11525	17.2				
Piedras	550	Spain	550	100	0.034	100	61	
Odiel	2417	Spain	2417	100	0.211	100	1 200	1967-1995
Guadaira		Spain						
Tinto	1727	Spain	1727	100	0.090	100	178	1966-1995
Guadalquivir	63241	Spain	63241	100	4.966	100	3423	1942-88
Guadamar								
Guadalete	3360	Spain	3360	100	0.555	100	413	
TOTAL	356726	Spain	301093	84.4	20.907	NI	70553	
		Portugal	55515	15.6	NI			
		TOTAL	356608	100				

River	Catchment area	Countries	Share in catchment area		Population (1990)		LTA*	LTA-period
	[km2]		[km2]	[%]	[10E6]	[%]	[1000 m3/d]	[a]
Statistical Information provided by Sweden:					2005			
Vege å (95)	498	Sweden	498	100	0.0430	100	440	1961-1990
Rönne å (96)	1890	Sweden	1890	100	0.0903	100	2030	1961-1990
Stensån (97)	284	Sweden	284	100	0.0065	100	350	1961-1990
Lagan (98)	6444	Sweden	6444	100	0.1181	100	7410	1961-1990
Genevadsån (99)	225	Sweden	225	100	0.0046	100	350	1961-1990
Fylleån (100)	359	Sweden	359	100	0.0092	100	650	1961-1990
Nissan (101)	2682	Sweden	2682	100	0.0834	100	3690	1961-1990
Suseån (102)	441	Sweden	441	100	0.0074	100	640	1961-1990
Ätran (103)	3343	Sweden	3343	100	0.0657	100	5070	1961-1990
Himleån (104)	214	Sweden	214	100	0.0127	100	330	1961-1990
Viskan (105)	2201	Sweden	2201	100	0.1236	100	2760	1961-1990
Röfsån (106)	723	Sweden	723	100	0.0281	100	1030	1961-1990
Kungsbackaån (107)	310	Sweden	310	100	0.0404	100	410	1961-1990
Göta älv (108)	50230	Sweden	42780.00	85.20	0.8776	ni	50530	1961-1990
		Norway	7450.00	14.80	ni	ni		
69844	=Total of Swedish rivers discharging to the Kattegat							
Bäveån (109)	302	Sweden	302	100	0.0226	100	350	1961-1990
Örekilsälven (110)	1327	Sweden	1327	100	0.0138	100	2050	1961-1990
Strömsån (111)	253	Sweden	253	100	0.0056	100	390	1961-1990
Enningsdalsälven (112)	704	Sweden	704	100	0.0029	100	1360	1961-1990
2586	=Total of Swedish rivers discharging to the Skagerrak							
Statistical Information provided by the United Kingdom:								
Ness (SC2b)	NI	-	-	-	NI	-	7 600	NI
Conon (SC2b)	NI	-	-	-	NI	-	NI	NI
Baeuly (SC2b)	NI	-	-	-	NI	-	NI	NI
Findhorn (SC2b)	NI	-	-	-	NI	-	NI	NI
Shin (SC2b)	NI	-	-	-	NI	-	NI	NI
Helmsdale (SC2b)	NI	-	-	-	NI	-	NI	NI
Naver (SC2b)	NI	-	-	-	NI	-	NI	NI
Thurso (SC2b)	NI	-	-	-	NI	-	NI	NI
Brora (SC2b)	NI	-	-	-	NI	-	NI	NI
Oykel (SC2b)	NI	-	-	-	NI	-	NI	NI
Nairn (SC2b)	NI	-	-	-	NI	-	NI	NI
Carron (Sutherland) (SC2b)	NI	-	-	-	NI	-	NI	NI
Wick (SC2b)	NI	-	-	-	NI	-	NI	NI
Halladale (SC2b)	NI	-	-	-	NI	-	NI	NI
Hope (SC2b)	NI	-	-	-	NI	-	NI	NI
Alness (SC2b)	NI	-	-	-	NI	-	NI	NI
Cassley (SC2b)	NI	-	-	-	NI	-	NI	NI
Fleet (SC2b)	NI	-	-	-	NI	-	NI	NI
Berriedale Water (Sc2b)	NI	-	-	-	NI	-	NI	NI
Borgie (SC2b)	NI	-	-	-	NI	-	NI	NI
Forss Water (SC2b)	NI	-	-	-	NI	-	NI	NI
Loch of Stenness (SC2b)	NI	-	-	-	NI	-	NI	NI
Glass (SC2b)	NI	-	-	-	NI	-	NI	NI
Strathy (Sc2b)	NI	-	-	-	NI	-	NI	NI
Mickle Burn (SC2b)	NI	-	-	-	NI	-	NI	NI
Dunbeath Water (SC2b)	NI	-	-	-	NI	-	NI	NI
Spey (SC3)	NI	-	-	-	NI	-	5 600	NI

UK CONT.

River	Catchment area	Countries	Share in catchment area		Population (1990)		LTA*	LTA-period
	[km2]		[km2]	[%]	[10E6]	[%]	[1000 m3/d]	[a]
Dee (Grampian) (SC3)	NI	-	-	-	NI	-	NI	NI
Don (SC3)	NI	-	-	-	NI	-	NI	NI
Deveron (SC3)	NI	-	-	-	NI	-	NI	NI
Ythan (SC3)	NI	-	-	-	NI	-	NI	NI
Ugie (SC3)	NI	-	-	-	NI	-	NI	NI
Bervie Water (SC3)	NI	-	-	-	NI	-	NI	NI
Lossie (SC3)	NI	-	-	-	NI	-	NI	NI
Tay (SC4)	NI	-	-	-	NI	-	14 000	NI
Earn (SC4)	NI	-	-	-	NI	-	NI	NI
North Esk (Tayside) (SC4)	NI	-	-	-	NI	-	NI	NI
South Esk (Tayside) (SC4)	NI	-	-	-	NI	-	NI	NI
Eden SC4)	NI	-	-	-	NI	-	NI	NI
Lunan Water (SC4)	NI	-	-	-	NI	-	NI	NI
Dightly Water (SC4)	NI	-	-	-	NI	-	NI	NI
Tweed (SC5)	NI	-	-	-	NI	-	NI	NI
Forth (SC5)	NI	-	-	-	NI	-	4 300	NI
Whiteadder Water (SC5)	NI	-	-	-	NI	-	NI	NI
Leven (Fife) (SC5)	NI	-	-	-	NI	-	NI	NI
Almond (SC5)	NI	-	-	-	NI	-	NI	NI
Esk (Lothian) (SC5)	NI	-	-	-	NI	-	NI	NI
Tyne (SC5)	NI	-	-	-	NI	-	3 900	NI
Allan Water (SC5)	NI	-	-	-	NI	-	NI	NI
Devon (SC5)	NI	-	-	-	NI	-	NI	NI
Carron (Falkirk) (SC5)	NI	-	-	-	NI	-	NI	NI
Avon (SC5)	NI	-	-	-	NI	-	NI	NI
Eye Water (SC5)	NI	-	-	-	NI	-	NI	NI
Water of Leith (SC5)	NI	-	-	-	NI	-	NI	NI
Tweed (E1)	NI	-	-	-	NI	-	NI	NI
Coquet (E1)	NI	-	-	-	NI	-	NI	NI
Wansbeck (E1)	NI	-	-	-	NI	-	NI	NI
Blyth (E1)	NI	-	-	-	NI	-	NI	NI
Tyne (E2)	NI	-	-	-	NI	-	NI	NI
Derwent (E2)	NI	-	-	-	NI	-	NI	NI
Team (E2)	NI	-	-	-	NI	-	NI	NI
Wear (E3)	NI	-	-	-	NI	-	NI	NI
Skerne (E5)	NI	-	-	-	NI	-	NI	NI
Tees (E5)	NI	-	-	-	NI	-	NI	NI
Tot.N.Sea (N) catch.	50000						89300	1960 to 1990
Aire (E8)	NI	-	-	-	NI	-	NI	NI
Derwent (E8)	NI	-	-	-	NI	-	NI	NI
Don (E8)	NI	-	-	-	NI	-	NI	NI
Ouse (E8)	NI	-	-	-	NI	-	NI	NI
Wharfe (E8)	NI	-	-	-	NI	-	NI	NI
Ancholme (E8)	NI	-	-	-	NI	-	NI	NI
Trent (E8)	NI	-	-	-	NI	-	7800	NI
Idle (E8)	NI	-	-	-	NI	-	NI	NI
Welland (E9)	NI	-	-	-	NI	-	NI	NI
Nene (E9)	NI	-	-	-	NI	-	NI	NI
Ouse (E9)	NI	-	-	-	NI	-	NI	NI
Witham (E9)	NI	-	-	-	NI	-	NI	NI
Glan (E9)	NI	-	-	-	NI	-	NI	NI
Hundred Foot River (E9)	NI	-	-	-	NI	-	NI	NI
Ten Mile River (E9)	NI	-	-	-	NI	-	NI	NI
Bure (E10)	NI	-	-	-	NI	-	NI	NI
Wensum (E10)	NI	-	-	-	NI	-	NI	NI
Stour (E10)	NI	-	-	-	NI	-	NI	NI
Gipping (E10)	NI	-	-	-	NI	-	NI	NI
Waveney (E10)	NI	-	-	-	NI	-	NI	NI
Yare (E10)	NI	-	-	-	NI	-	NI	NI
Colne (E11)	NI	-	-	-	NI	-	NI	NI
Chalmer (E11)	NI	-	-	-	NI	-	NI	NI
Blackwater (E11)	NI	-	-	-	NI	-	NI	NI
Thames (E12)	NI	-	-	-	NI	-	6700	NI

UK CONT.

Beam (E12)	NI	-	-	-	NI	-	NI	NI
Beverley Brook (E12)	NI	-	-	-	NI	-	NI	NI
Brent (E12)	NI	-	-	-	NI	-	NI	NI
Crane (E12)	NI	-	-	-	NI	-	NI	NI
Ingrebourne (E12)	NI	-	-	-	NI	-	NI	NI
Lee (E12)	NI	-	-	-	NI	-	NI	NI
Ravensbourne (E12)	NI	-	-	-	NI	-	NI	NI
Roding (E12)	NI	-	-	-	NI	-	NI	NI
Wandle (E12)	NI	-	-	-	NI	-	NI	NI
Tot.N.Sea (S) catch.	62000						32300	1960 to 1990
Medway (E13)	NI	-	-	-	NI	-	NI	NI
Stour (E13)	NI	-	-	-	NI	-	1130	NI
Rother (E13)	NI	-	-	-	NI	-	NI	NI
Adur (E14)	NI	-	-	-	NI	-	NI	NI
Ouse (E14)	NI	-	-	-	NI	-	NI	NI
Cuckmere (E14)	NI	-	-	-	NI	-	NI	NI
Arun (E14)	NI	-	-	-	NI	-	NI	NI
Itchen (E15)	NI	-	-	-	NI	-	NI	NI
Test (E15)	NI	-	-	-	NI	-	NI	NI
Blackwater (E15)	NI	-	-	-	NI	-	NI	NI
Frome (E16)	NI	-	-	-	NI	-	NI	NI
Stour (E16)	NI	-	-	-	NI	-	NI	NI
Avon (E16)	NI	-	-	-	NI	-	1330	NI
Axe (E17)	NI	-	-	-	NI	-	NI	NI
Dart (E17)	NI	-	-	-	NI	-	NI	NI
Exe (E17)	NI	-	-	-	NI	-	1360	NI
Gara (E17)	NI	-	-	-	NI	-	NI	NI
Otter (E17)	NI	-	-	-	NI	-	NI	NI
Teign (E17)	NI	-	-	-	NI	-	NI	NI
Cober (E18)	NI	-	-	-	NI	-	NI	NI
Erme (E18)	NI	-	-	-	NI	-	NI	NI
Fal (E18)	NI	-	-	-	NI	-	NI	NI
Fowey (E18)	NI	-	-	-	NI	-	NI	NI
Gara (E18)	NI	-	-	-	NI	-	NI	NI
Lynher (E18)	NI	-	-	-	NI	-	NI	NI
Par (E18)	NI	-	-	-	NI	-	NI	NI
Plym (E18)	NI	-	-	-	NI	-	NI	NI
Porthleven (E18)	NI	-	-	-	NI	-	NI	NI
St Austel (E18)	NI	-	-	-	NI	-	NI	NI
Tavy (E18)	NI	-	-	-	NI	-	NI	NI
Tamar (E18)	NI	-	-	-	NI	-	1940	NI
Tot.Channel catch.	22000						16500	1960-1990
Camel (E19)	NI	-	-	-	NI	-	NI	NI
Hayle (E19)	NI	-	-	-	NI	-	NI	NI
Menalhyl (E19)	NI	-	-	-	NI	-	NI	NI
Red River (E19)	NI	-	-	-	NI	-	NI	NI
Taw (Yeo) (E19)	NI	-	-	-	NI	-	NI	NI
Taw (2) (E20)	NI	-	-	-	NI	-	NI	NI
Torr ridge (E20)	NI	-	-	-	NI	-	NI	NI
Parrett (E21)	NI	-	-	-	NI	-	NI	NI
Tone (E21)	NI	-	-	-	NI	-	NI	NI
Bristol Avon (E22)	NI	-	-	-	NI	-	NI	NI
Severn (2) (E22)	NI	-	-	-	NI	-	9100	NI
Wye (E23)	NI	-	-	-	NI	-	6200	NI
Usk (E23)	NI	-	-	-	NI	-	NI	NI
Rhymney (E23)	NI	-	-	-	NI	-	NI	NI
Ely (E23)	NI	-	-	-	NI	-	NI	NI
Afon Lwyd (E23)	NI	-	-	-	NI	-	NI	NI
Ebbw Fawr (E23)	NI	-	-	-	NI	-	NI	NI
Taff (E23)	NI	-	-	-	NI	-	NI	NI
Cadoxton (E24)	NI	-	-	-	NI	-	NI	NI
Neath (E24)	NI	-	-	-	NI	-	NI	NI
Ogmore (E24)	NI	-	-	-	NI	-	NI	NI
Thaw (E24)	NI	-	-	-	NI	-	NI	NI
Tawe (E24)	NI	-	-	-	NI	-	NI	NI
Ewenny (E24)	NI	-	-	-	NI	-	NI	NI
Nant Y Fendrod (E24)	NI	-	-	-	NI	-	NI	NI
Thaw Kenson (E24)	NI	-	-	-	NI	-	NI	NI
Dafen (E25)	NI	-	-	-	NI	-	NI	NI

UK CONT.

W Cleddau (E25)	NI	-	-	-	NI	-	NI	NI
Tywi (E25)	NI	-	-	-	NI	-	3700	NI
Taf (E25)	NI	-	-	-	NI	-	NI	NI
Loughor (E25)	NI	-	-	-	NI	-	NI	NI
Tot.Celtic S. catch.	32000						36400	1960-1990
Teifi (E26)	NI	-	-	-	NI	-	NI	NI
Ystwyth (E26)	NI	-	-	-	NI	-	NI	NI
Rheidol (E26)	NI	-	-	-	NI	-	NI	NI
Mawddach (E26)	NI	-	-	-	NI	-	NI	NI
Dyfi (E26)	NI	-	-	-	NI	-	NI	NI
Glaslyn (E26)	NI	-	-	-	NI	-	NI	NI
Afon Goch (2) (E27)	NI	-	-	-	NI	-	NI	NI
Clwyd (E27)	NI	-	-	-	NI	-	NI	NI
Cefni (E27)	NI	-	-	-	NI	-	NI	NI
Conwy (E27)	NI	-	-	-	NI	-	NI	NI
Dee (E27)	NI	-	-	-	NI	-	3020	NI
Nant Glywddyr (E27)	NI	-	-	-	NI	-	NI	NI
Alt (E28)	NI	-	-	-	NI	-	NI	NI
Mersey (E28)	NI	-	-	-	NI	-	3540	NI
Weaver (E28)	NI	-	-	-	NI	-	NI	NI
Darwen (E29)	NI	-	-	-	NI	-	NI	NI
Douglas (E29)	NI	-	-	-	NI	-	NI	NI
Ribble (E29)	NI	-	-	-	NI	-	NI	NI
Kent (E29)	NI	-	-	-	NI	-	NI	NI
Lune (E29)	NI	-	-	-	NI	-	3020	NI
Wyre (E29)	NI	-	-	-	NI	-	NI	NI
Leven (E29)	NI	-	-	-	NI	-	NI	NI
Derwent (E30)	NI	-	-	-	NI	-	NI	NI
Eden (E30)	NI	-	-	-	NI	-	4320	NI
Nith (SC1)	NI	-	-	-	NI	-	NI	NI
Annan (SC1)	NI	-	-	-	NI	-	NI	NI
Dee (Solway) (SC1)	NI	-	-	-	NI	-	NI	NI
Esk (Solway) (SC1)	NI	-	-	-	NI	-	NI	NI
Cree (SC1)	NI	-	-	-	NI	-	NI	NI
Bladnoch (SC1)	NI	-	-	-	NI	-	NI	NI
Water of Luce (SC1)	NI	-	-	-	NI	-	NI	NI
Urr Water (SC1)	NI	-	-	-	NI	-	NI	NI
Lochar Water (SC1)	NI	-	-	-	NI	-	NI	NI
Newry (NI2)	NI				NI	-	NI	NI
Quoile (NI2)	NI				NI	-	NI	NI
Lagan (NI2)	NI				NI	-	NI	NI
Tot.Irish Sea catch.	35000						48400	1960-1990
Clyde (SC2)	NI	-	-	-	NI	-	4 000	NI
Awe (SC2)	NI	-	-	-	NI	-	NI	NI
Leven (Loch Lomond (SC2)	NI	-	-	-	NI	-	NI	NI
Ayr (SC2)	NI	-	-	-	NI	-	NI	NI
Irvine (SC2)	NI	-	-	-	NI	-	NI	NI
Kelvin (SC2)	NI	-	-	-	NI	-	NI	NI
Stinchar (SC2)	NI	-	-	-	NI	-	NI	NI
Doon (SC2)	NI	-	-	-	NI	-	NI	NI
Water of Girvan (SC2)	NI	-	-	-	NI	-	NI	NI
White Cart Water (SC2)	NI	-	-	-	NI	-	NI	NI
Garnock (SC2)	NI	-	-	-	NI	-	NI	NI

UK CONT.

Etive (SC2)	NI	-	-	-	NI	-	NI	NI
Eachaig (SC2)	NI	-	-	-	NI	-	NI	NI
Black Cart Water (SC2)	NI	-	-	-	NI	-	NI	NI
Gryfe (SC2)	NI	-	-	-	NI	-	NI	NI
Add (SC2)	NI	-	-	-	NI	-	NI	NI
Lochy (SC2a)	NI	-	-	-	NI	-	5 400	NI
Ewe (SC2a)	NI	-	-	-	NI	-	NI	NI
Shiel (SC2a)	NI	-	-	-	NI	-	NI	NI
Leven (Lochaber) (SC2a)	NI	-	-	-	NI	-	NI	NI
Morar (SC2a)	NI	-	-	-	NI	-	NI	NI
Inver (SC2a)	NI	-	-	-	NI	-	NI	NI
Carron (Wester Ross) (SC2a)	NI	-	-	-	NI	-	NI	NI
Gruinard (SC2a)	NI	-	-	-	NI	-	NI	NI
Broom (SC2a)	NI	-	-	-	NI	-	NI	NI
Kirkaig (SC2a)	NI	-	-	-	NI	-	NI	NI
Ling (SC2a)	NI	-	-	-	NI	-	NI	NI
Laxford (SC2a)	NI	-	-	-	NI	-	NI	NI
Abhainn Ghriomarstaidh	NI	-	-	-	NI	-	NI	NI
Aline (SC2a)	NI	-	-	-	NI	-	NI	NI
Loch Linnhe (SC2a)	NI	-	-	-	NI	-	NI	NI
Bush (NI1)	NI				NI		NI	NI
Bann (NI1)	NI				NI		7900	NI
Roe (NI1)	NI				NI		NI	NI
Faughan (NI1)	NI				NI		NI	NI
Burn Dennet NI1	NI				NI		NI	NI
Mourne (NI1)	NI				NI		NI	NI
Finn (NI1)	NI				NI		NI	NI
Tot.Atlantic catchm.	42000						49700	1960-1990

*) LTA = Long-term average



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