



Annual OSPAR report on dumping of wastes or other matter at sea in 2010

Portugal had not sent any data for 2010 at the time of publication.

This is a revised version to include data from Iceland
for Tables 1 and Table 3a as it had been omitted.

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. The Contracting Parties are Belgium, Denmark, the European Union, Finland, France, Germany, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom

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. Les Parties contractantes sont l'Allemagne, la Belgique, le Danemark, l'Espagne, 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, la Suisse et l'Union européenne.

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Report on Dumping Permits Issued in 2010

Table 1 Overview of number of permits issued, tonnes licensed and tonnes dumped in 2010

Contracting Party	Number of permits issued for waste category				Number of operations regulated by other means	Tonnes licensed (dry weight)	Tonnes dumped (dry weight)	Notes
	Dredged material	Inert material	Fish waste	Others				
Belgium	7	-	-	-	-	28 400 000	52 162 737	(1)
Denmark	28	-	-	-	-	3 576 116	3 576 436	(1)
France	38	-	-	-	-	71 247 600	17 917 246	-
Germany	17	-	-	-	18	32 124 000	32 124 000	-
Iceland	4	-	-	-	-	328 918	633 973	(1)
Ireland	8	-	-	-	-	687 672	362 187	(1) (2) (3) (4)
Netherlands	11	-	-	-	Numerous	25 000 000 m ³	21 146 846	(1) (2) (3)
Norway	20					77 269	77 269	(1)
		5				420 059	420 059	-
			1			0,65	0,65	-
Portugal	-	-	-	-	-	-	-	-
Spain	25	-	-	-	-	2 985 707	2 872 141	(1) (2)
Sweden	13	-	-	-	-	1 988 380	23 211	(1)
United Kingdom	118	-	-	-	-	44 675 777	15 181 209	(1) (2) (3)

Table 2 Specific reporting on dumping operations of dredged material exceeding national action levels for sea disposal within 2010

OSPAR-codes	Contaminants of concern			Tonnes dumped (dry weight)	Reasons for allowing disposal	Notes
Deposit site code	Type	Upper action level (mg/kg)	Average concentration in the material (mg/kg)			
BELGIUM						
-	-	-	-	-	-	-
DENMARK	TBT	0,2		0		
FRANCE						
F/05904	Cd	2,4	2,5	93 470		
F/05904	Cu	90	150			
F/05904	Pb	200	1100			
F/05904	Zn	552	590			
F/05904	TBT	400	807			
F/06202	Hg	0,8	0,88	45 000		
F/01408	TBT	400	505	5 650		
F/01410 (Nord) F/01411 (Sud)	Cd	2,4	4,11	1 140		
	Cu	90	107			
	Zn	552	1700			
GERMANY						
D/57	pp DDD	0,006	0,0146	367 000	(1)	
D/57	pp DDE	0,003	0,0055	367 000	(1)	
D/57	DDT*	0,003	0,0071	257 000	(1)	
D/57	HCB	0,0055	0,0087	367 000	(1)	
D/88	pp DDD	0,006	0,0065	1 260 000	(2)	
D/101	pp DDD	0,006	0,0066	3 911 000	(3)	
D/101	pp DDE	0,003	0,0029	3 911 000	(3)	
D/109	ΣPCB7	0,04	0,0736	4 000	(2)	
D/121	pp DDD	0,006	0,0066	1 368 000	(3)	
D/121	pp DDE	0,003	0,0029	1 368 000	(3)	
ICELAND						
-	-	-	-	-	-	(1)

Amounts of wastes or other matter dumped at sea in 2010

Table 3a dredging operation, deposit sites and dumping amounts

OSPAR-codes	categories				In case of dredged material						total quantity	
Deposit site	dredged material	inert material	fish waste	others	origin	type of areas dredged			dredging operation type		(in metric tonnes)	
					name of watersystem	Harbour	Estuary	Sea	capital	maintenance	dry weight	notes
Belgium												
B/1	x				Pas van het zand			x		x	1 360 582	
B/1	x				CDNB Zeebrugge			x		x	934 194	
B/1	x				Scheur Oost			x		x	455 286	
B/1	x				Scheur West			x		x	888 364	
B/3	x				Pas van het zand			x		x	698 684	
B/3	x				CDNB Zeebrugge			x		x	560 180	
B/3	x				Voorhaven	x				x	1 045 197	
B/3	x				Scheur Oost			x		x	130 937	
B/3	x				Scheur West			x		x	118 847	
B/6	x				Haven & voorhaven	x				x	2 107 364	
B/6	x				CDNB Zeebrugge			x		x	748 441	
B/6	x				Vaargeul Blankenberge			x		x	35 407	
B/6	x				Toegangsgeul Blankenberge			x		x	6 188	
B/6	x				Haven Blankenberge	x				x	15 367	
B/9	x				Ingangsgeul Oostende			x		x	232 933	
B/9	x				Montgomery	x				x	1 480	
B/9	x				Haven Oostende	x				x	392 440	
B/9	x				RYCO Oostende	x		x		x	2 575	
B/99	x				Toegangsgeul Nieuwpoort			x		x	84 422	
B/99	x				Vaar-& havengeul Nieuwpoort			x		x	54 434	
B/99	x				Nieuwe Jachthaven			x		x	14 907	
B/99	x				Oude vlotkom	x				x	29 214	
B/99	x				Novus Portus	x				x	36 422	
B/HP1	x				Dr. van Borssele		x		x		661 608	
B/HP1	x				Gat van Ossenissee, 24-28		x		x		177 610	
B/HP1	x				Gat van Ossenissee, 28-32		x		x		625 542	
B/HP1	x				Overl. Hansweert		x		x		1 474 388	
B/HP1	x				Overl. Valkenisse, 54		x		x		384 712	
B/HP1	x				Overl. Valkenisse,58		x		x		551 180	
B/HP1	x				Pas van Terneuzen, 10-12		x		x		334 546	
B/HP1	x				Pas van Terneuzen, 8-10		x		x		554 744	
B/HP1	x				Put van Terneuzen		x		x		1 249 874	
B/HP3	x				Dr. van Bath		x		x		1 060 590	
B/HP3	x				Dr. van Valkenisse		x		x		2 199 712	
B/HP3	x				Nauw van Bath		x		x		287 772	
B/HP3	x				Overl. Valkenisse, 58		x		x		281 354	
B/RVB	x				Dr. van Bath		x		x		69 318	
B/RVB	x				Dr. van Hansweert		x		x		348 178	
B/RVB	x				Dr. van Valkenisse		x		x		184 858	
B/RVB	x				Dr. van Walsoorden		x		x		305 826	
B/RVB	x				Overl. Hansweert, 41-47		x		x		122 272	
B/RVB	x				Overl. Hansweert, 54		x		x		43 222	

OSPAR-codes		categories				In case of dredged material					total quantity		notes
Deposit site		dredged material	inert material	fish waste	others	origin name of watersystem	type of areas dredged		Sea	dredging operation type		(in metric tonnes) dry weight	
B/RVB		x				Overl. Hansweert, 58		x		x		4 058	
B/RVB		x				Vaarwater boven Bath		x		x		9 284	
B/SN31		x				Dr. van Borssele		x		x		321 728	
B/SN51		x				Dr. van Borssele		x		x		5 230	
B/SN51		x				Dr. van Bath		x		x		277 722	
B/SN51		x				Dr. van Hansweert		x		x		79 342	
B/SN51		x				Dr. van Valkenisse		x		x		53 362	
B/WALS		x				Dr. van Bath		x		x		1 128 046	
B/WALS		x				Dr. van Hansweert		x		x		4 271 836	
B/WALS		x				Dr. van Valkenisse		x		x		487 910	
B/WALS		x				Dr. van Walsoorden		x		x		468 802	
B/WALS		x				Nauw van Bath		x		x		348 488	
B/WALS		x				Overl. Valkenisse, 54		x		x		563 544	
B/WALS		x				Overl. Valkenisse, 58		x		x		370 884	
B/WALS		x				Vaarwater boven Bath		x		x		51 596	
B/WALS		x				Vaarwater boven Bath, 72-76		x		x		200 158	
B/int12		x				Dr. Deurganckdok		x		x		88 548	
B/int12		x				Dr. van Frederik		x		x		707 322	
B/int12		x				Dr. van Zandvliet		x		x		8 312	
B/int13		x				Dr. Deurganckdok		x		x		136 322	
B/int13		x				Dr. van Frederik		x		x		657 998	
B/int13		x				Dr. van Zandvliet		x		x		14 968	
B/int14		x				Dr. van Frederik		x		x		57 966	
B/int14		x				Dr. van Zandvliet		x		x		415 680	
B/int14		x				Vaarwater Pl. van Lillo		x		x		110 468	
B/int15		x				Dr. van Frederik		x		x		43 698	
B/int15		x				Dr. van Zandvliet		x		x		384 920	
B/int15		x				Vaarwater Pl. van Lillo		x		x		113 348	
B/int 1bis		x				Afwaarts Zandvliet		x		x		146 840	
B/int 1bis		x				Dr. Deurganckdok		x		x		168 684	
B/int 1bis		x				Dr. van Frederik		x		x		1 741 322	
B/int 1bis		x				Dr. van Zandvliet		x		x		986 296	
B/int 1bis		x				Vaarwater Oudendijk		x		x		11 066	
B/int 1bis		x				Vaarwater Pl. van Lillo		x		x		1 782 946	
B/int8		x				Overl. Valkenisse 54		x			x	417 082	
B/int8		x				Overl. Valkenisse 58		x			x	359 276	
B/int8		x				Pas van Terneuzen		x			x	37 566	
B/HP1		x				Dr. van Borssele		x			x	440 584	
B/HP1		x				Dr. Van Vlissingen		x			x	1 023 046	
B/HP1		x				Pas van Terneuzen B10		x			x	149 846	
B/HP3		x				Dr. van Borsele		x			x	544 326	
B/RVB		x				Dr. van Hansweert		x			x	133 144	
B/RVB		x				Dr. van Valkenisse		x			x	37 358	
B/RVB		x				Dr. van Walsoorden		x			x	9 980	
B/RVB		x				Gat Van Ossenisse 28		x			x	55 236	
B/RVB		x				Overl. Van Hansweert 41-47		x			x	111 418	
B/SH51		x				Dr. van Bath		x			x	54 560	
B/SH51		x				Dr. van Hansweert		x			x	37 642	

OSPAR-codes		categories				In case of dredged material					total quantity		notes
Deposit site		dredged material	inert material	fish waste	others	origin name of watersystem	type of areas dredged		Sea	dredging operation type		(in metric tonnes) dry weight	
B/SH51		x				Dr. van Valkenisse	Harbour	Estuary			x	160 940	
B/SN11		x				Dr. van Borssele		x			x	600 106	
B/SN11		x				Overloop van Valkenisse B10		x			x	107 512	
B/SN31		x				Dr. van Borssele		x			x	944 738	
B/SN31		x				Gat van Ossenisse N24		x			x	290 578	
B/SN31		x				Pas van Terneuzen B10		x			x	414 602	
B/SN31		x				Pas van Terneuzen B8		x			x	185 208	
B/SN31		x				Put van Terneuzen		x			x	62 850	
B/SN51		x				Dr. van Bath		x			x	226 324	
B/SN51		x				Dr. van Hansweert		x			x	591 138	
B/SN51		x				Dr. van Valkenisse		x			x	774 952	
B/SN51		x				Dr. van Walsoorden		x			x	150 088	Plough dredging
B/SN51		x				Overl. Van Valkenisse B54		x			x	29 532	Plough dredging
B/SN51		x				Overl. Van Valkenisse B58		x			x	361 774	
B/SN51		x				Vaarwater boven Bath 72		x			x	12 618	
B/int1a		x				Dr. Van Vlissingen		x			x	128 954	
B/int1b		x				Dr. Van Vlissingen		x			x	189 822	(4)
B/int18		x				Dr. van Bath		x			x	83 378	
B/int18		x				Dr. van Hansweert		x			x	314 576	
B/int18		x				Overl. Hansweert		x			x	7 458	(4)
B/int18		x				Overl. Van Valkenisse B54		x			x	304 452	
B/int12		x				Deurganckdok N		x			x	937 410	(5)
B/int12		x				Dr. van Frederik		x			x	116 394	(5)
B/int12		x				Dr. van Lillo		x			x	1 592	(5)
B/int12		x				Dr. van Zandvliet		x			x	40 424	(4)
B/int12		x				Kallosluis		x			x	283 562	
B/int12		x				Toeg. Boudew.sluis		x			x	66 556	
B/int12		x				Toeg. Zandvl/berendr		x			x	526 622	
B/int12		x				Vaarwater Pl. van Lillo		x			x	163 512	
B/int13		x				Deurganckdok N		x			x	854 036	
B/int13		x				Dr. van Frederik		x			x	173 178	
B/int13		x				Dr. van Lillo		x			x	3 316	
B/int13		x				Dr. van Zandvliet		x			x	37 582	
B/int13		x				Kallosluis		x			x	318 690	
B/int13		x				Toeg. Boudew.sluis		x			x	61 692	
B/int13		x				Toeg. Zandvl/berendr		x			x	469 426	
B/int13		x				Vaarwater Pl. van Lillo		x			x	162 158	
B/int1bis		x				Afwaarts Zandvliet		x			x	27 376	
B/int1bis		x				CDW		x			x	52 322	
B/int1bis		x				Dr. van Frederik		x			x	120 616	
B/int1bis		x				Dr. van Krankeloon		x			x	43 712	
B/int1bis		x				Dr. van Lillo		x			x	321 264	
B/int1bis		x				Dr. van Zandvliet		x			x	538 718	
B/int1bis		x				Dr. vd parel		x			x	244 898	
B/int1bis		x				Vaarwater Oudendijk		x			x	3 690	
B/int1bis		x				Vaarwater Pl. van Lillo		x			x	149 930	
B/boei 102		x				Vaarwater Pl. van Lillo		x			x	1 532	
Total												52 162 737	

OSPAR-codes	categories				In case of dredged material						total quantity	
Deposit site	dredged material	inert material	fish waste	others	origin name of watersystem	type of areas dredged Harbour Estuary		Sea	dredging operation type capital maintenance		(in metric tonnes) dry weight	notes
Denmark												
Hundested	x				Gilleleje Havn, map sign 161	x				x	776	
Hundested	x				Jyllinge Nordhavn, map sign 129	x				x	3 313	
Hundested	x				Kulhuse Havn, map sign 129	x				x	1 620	
Odden Klapplads	x				Odden_Fiskeri Havn, map sign 129			x		x	6 920	
Asaa Klapplads	x				Asaa Havn, map sign 123	x				x	6 038	
Als Odde Klapplads	x				Sejlrende til Mariager Fjord, map sign 122					x	40 934	
Skaven Klapplads	x				Skaven Havn, map sign 99			x		x	5 066	
Grenaa havn klapplads	x				Grenaa Havn, map sign 124				x		1 155 481	
Strandby klapplads	x				Rønnerhavnen indsejling, map sign 123			x		x	7 720	
Grenaa lystbådehavn klapplads	x				Grenaa Lystbådehavn, map sign 124	x				x	964	(1)
Stauning Havn klapplads	x				Stauning Havn, map sign 99	x				x	12 968	(2)
Øster Hurup klapplads	x				Øster Hurup Havn, map sign 122					x	1 439	(3)
Hanstholm Havn Klapplads	x				Hanstholm Havn, map sign 93					x	98 407	(4)
Hvide Sande klapplads	x				Hvide Sande bassiner, map sign 93					x	4 457	(5)
Thorsminde klapplads	x				Thorsminde bassiner, map sign 93	x				x	3 231	(6)
Ålbæk klapplads	x				Ålbæk Havn, map sign 101					x	16 048	(7)
Frederikshavn klapplads	x				Frederikshavn Marina, map sign 123	x				x	13 576	(8)
Frederikshavn klapplads	x				Frederikshavn Havn, map sign 123						39 088	
Ringkøbing klapplads	x				Ringkøbing Havn Indsejling, map sign 99			x		x	4 969	
Sæby klapplads	x				Sæby Havn, map sign 123	x				x	1 729	
Sæby klapplads	x				Sæby Havn Indsejling, map sign 123			x		x	8 342	
Hirtshals Klapplads	x				Hirtshals Havn Indsejling, map sign 93			x		x	277 389	
E og F i Vadehavet + 2b og 3b i Vesterhavet	x				Slunden v Fanø			x		x	23 040	
2b og 3b i Vesterhavet	x				Taurus Kaj, Esbjerg Havn	x				x	19 000	
2b, 3b og Vådebjælke i Vesterhavet	x				Sejlrenden Vesterhav - Esbjerg Havn			x		x	1 185 284	
E og F i Vadehavet	x				Løbende oprensninger i Esbjerg Havn	x				x	553 881	
Isenhagen i Rømø Dyb	x				Rømø Havn	x				x	84 435	
Bjørnø	x				Bjørnø Mole	x				x	320	
Total											3 576 436	
France												
F/05901	x					x				x	745 518	
F/05902	x					x				x	509 706	
F/05903	x					x				x	37 432	
F/05904	x					x				x	553 871	
F/06201	x					x				x	399 000	
F/06202	x					x				x	760 000	
F/07601	x					x	x			x	4 280 000	
F/07602	x					x	x			x	1 624 047	
F/07603	x					x				x	103 397	
F/07606	x					x				x	63 177	
F/07607	x					x				x	30 484	
F/01402	x					x				x	14 218	
F/01408	x					x				x	15 120	
F/01410 (Nord) F/01411 (Sud)	x					x				x	266 140	
F/05002	x					x				x	48 400	

OSPAR-codes		categories				In case of dredged material					total quantity		
Deposit site	dredged material	inert material	fish waste	others	origin name of watersystem	type of areas dredged Harbour Estuary		Sea	dredging operation type capital maintenance		(in metric tonnes) dry weight	notes	
F/05004	x					x				x	8 852		
F/05601	x					x				x	144 391		
F/05602	x					x				x	16 000		
F/04401a	x						x			x	333 119		
F/04401	x					x	x			x	3 914 410		
F/04407	x					x				x	21 840		
F/04412	x					x				x	13 680		
F/08504	x					x				x	60 572		
F/08506	x					x				x	14 727		
F/08507	x					x				x	1 878		
F/08511	x					x				x	23 987		
F/03318	x					x				x	5 902		
F/01701a	x					x				x	30 286		
F/01701b	x					x				x	126 992		
F/01706	x					x				x	67 064		
F/01707	x					x				x	67 847		
F/01710	x					x				x	47 213		
F/01714a	x					x				x	3 031		
F/01715	x					x				x	21 458		
FDM/03336	x					x				x	3 000		
F/03317 ; F/03315 ; F/03316	x					x	x			x	253 000		
F/03318 ; F/03307 ; F/03317 ; F/03311	x					x	x			x	1 652 000		
F/03318 ; F/03307 ; F/03317 ; F/03311; F/03306 ; F/03305 ; F/03303 ; F/03302	x					x	x			x	1 077 000		
F/06401	x					x				x	5 537		
F/06401 / F/06402	x					x				x	286 188		
F/06401 / F/06403	x					x				x	245 382		
F/06403	x					x				x	324		
F/06404	x					x				x	17 762		
F/06405	x					x				x	3 293		
Total											17 917 246		
Germany												% of sand (1)	
D/12	x				Husum harbour	x				x	50 000	0%	
D/13	x				Harbour and outer harbour of Büsum	x				x	24 000	0%	
D/20	x				Outer harbour of Hooksiel	x				x	44 000	0%	
D/21	x				Wangerooge harbour	x				x	1 000	0%	
D/22	x				Spiekeroog harbour	x				x	4 000	0%	
D/25	x				Baltrum harbour	x				x	1 000	0%	
D/30	x				Norderney harbour	x				x	1 000	33%	
D/32	x				Norddeich harbour	x				x	8 000	0%	
D/40	x				Harbour basin of river Eider flood gate system	x				x	38 000	0%	
D/45	x				Approach channel of Juist harbour	x				x	2 000	0%	
D/54	x				Friedrichskoog harbour	x				x	53 000	50%	
D/56	x				Niedersachsenbrücke Wilhelmshaven (seaward mooring berth)	x				x	69 000	25%	
D/57	x				Hamburg harbour	x				x	367 000	0%	

OSPAR-codes		categories				In case of dredged material					total quantity	
Deposit site	dredged material	inert material	fish waste	others	origin name of watersystem	type of areas dredged		Sea	dredging operation type		(in metric tonnes) dry weight	notes
						Harbour	Estuary		capital	maintenance		
D/58	x				Langeoog harbour, Bengersiel harbour and approach channel to Bengersiel harbour	x				x	13 000	0%
D/60	x				Ems estuary, navigation channel km 90,0-105,0; Borkum harbour		x			x	722 000	100%
D/63	x				Ems estuary, navigation channel km 40,7-74,6		x			x	2 491 000	56%
D/65	x				Ems estuary, navigation channel km 31-53		x			x	2 070 000	39%
D/66	x				Ems estuary, navigation channel km 40-50		x			x	255 000	68%
D/70	x				Jade bay / navigation channel km 6,0-15,0; Neuer Vorhafen WHV	x	x			x	131 000	0%
D/71	x				Jade bay / navigation channel km 6,0-16	x	x			x	1 074 000	86%
D/74	x				Jade bay / navigation channel km 35-54,0	x	x			x	555 000	100%
D/75	x				Jade bay / navigation channel km 41,0-54,0	x	x			x	3 013 000	100%
D/80	x				Weser estuary / navigation channel km 78,0-91		x			x	441 000	100%
D/82	x				Weser estuary / navigation channel km 70,4-78,0; km 91 - 110		x			x	744 000	100%
D/84	x				Weser estuary / navigation channel km 70,4-78,0; km 91 - 130		x			x	609 000	100%
D/85	x				Weser estuary / navigation channel km 55,0-58		x			x	673 000	46%
D/86	x				Weser estuary / navigation channel km 55,0-58		x			x	1 625 000	69%
D/87	x				Weser estuary / navigation channel km 70,4-78,0		x			x	1 445 000	100%
D/88	x				Elbe estuary / navigation channel; km 638-717	x	x			x	1 348 000	4%
D/91	x				Elbe estuary / navigation channel; okm 689,8-726,0; Weststrecke	x	x			x	85 000	100%
D/92	x				Elbe estuary / navigation channel; km 689,9-732,0	x	x			x	176 000	100%
D/93	x				Elbe estuary / navigation channel; km 698,5-739,0	x	x			x	206 000	19%
D/94	x				Elbe estuary / navigation channel; km 698,5-748,0	x	x			x	1 296 000	100%
D/96	x				Elbe estuary / navigation channel; km 717,0-739,0	x	x			x	3 981 000	47%
D/98	x				Elbe estuary / navigation channel; Altenbruch km 717,0-726,0; km 732,0-748,0	x	x			x	1 704 000	95%
D/101	x				outer port of the lock to the "Nord-Ostsee-Kanal" (Kiel-Canal);	x	x			x	3 911 000	18%
D/103	x				Elbe estuary / navigation channel; km 638-670	x	x			x	338 000	100%
D/105	x				Elbe estuary / navigation channel; km 649-654	x	x			x	134 000	100%
D/109	x				Elbe estuary / navigation channel; km 638-717	x	x			x	74 000	65%
D/119	x				Cuxhaven harbour	x				x	975 000	0%
D/121	x				Inner part of Elbe lock "Nord-Ostsee-Kanal"	x				x	1 368 000	10%
D/127	x				Harbour Wyk, Island of Foehr	x				x	4 000	67%
D/128	x				Harbour List, Island of Sylt	x				x	1 000	14%
Total											32 124 000	
Iceland												
IS52	x					x				x	59 170	
IS53	x					x				x	31 122	
IS59	x					x				x	9 748	
IS60	x					x			x		341 600	
IS60	x					x				x	192 333	
Total											633 973	

OSPAR-codes		categories				In case of dredged material					total quantity	
Deposit site	dredged material	inert material	fish waste	others	origin name of watersystem	type of areas dredged		Sea	dredging operation type		(in metric tonnes) dry weight	notes
						Harbour	Estuary		capital	maintenance		
Ireland												
IR20	x				R. Boyne - Drogheda		x	x		x	58 796	
IR33	x				R. Shannon - Foynes		x			x	87 555	
IR36	x				R. Shannon / R. Lee - Fenit		x	x		x	32 589	
IR8	x				R. Barrow, R. Nore, R. Suir - Waterford					x	174 216	
IR55	x				Longshore drift - Magheraroarty			x		x	5 731	
IR56	x				Longshore drift - Buncrana			x		x	3 300	
Total											362 187	
Netherlands												
NL-6 Scheveningen											0	(1)
NL-7 IJmuiden	v					v					1 330 035	
NL-8 Rotterdam	v					v			v	v	9 859 124	
NL-10 Eastern Scheldt											0	(1)
NL-11 Western Scheldt	v					v	v			v	9 957 687	
NL-13 Waddensea West	N.A.											(2)
NL-14 Waddensea East	N.A.											(2)
NL-15 Ems-Dollard	N.A.											(2)
NL-16 Slijkgat											0	(1)
Total											21 146 846	
Norway												(1)
NO/OS4	x						x		NI	NI	1 280	
NO/OS3	x					NI			NI	NI	3 120	
NO/OS1	x					NI			NI	NI	1 040	
NO/VE1	x					x			NI	NI	8 688	
NO/VE3	x					x			NI	NI	6 116	
NO/VA7	x						x		NI	NI	880	
NO/VA8		x									11 500	
NO/VA9		x									108 612	
NO/VA10		x									576	
NO/HO1	x						x		NI	NI	800	
NO/HO6	x					x			NI	NI	400	
NO/HO7			x								1	
NO/ST4		x									285 721	
NO/NT6	x					x			NI	NI	22 000	
NO/NT7	x					x			NI	NI	4 455	
NO/TR7	x					x			NI	NI	625	
NO/TR10	x					x			NI	NI	937	
NO/TR11	x					x			NI	NI	313	
NO/TR12	x						x		NI	NI	20 000	
NO/FI3		x									13 650	
NO/SF	x						x		NI	NI	6 615	
Total											497 329	
Spain												
E/1	x				Orio	x	x		x	x	99 125	
E/2C	x				Zumaia	x	x		x	x	30 500	

OSPAR-codes		categories				In case of dredged material					total quantity		notes
Deposit site	dredged material	inert material	fish waste	others	origin name of watersystem	type of areas dredged		Sea	dredging operation type		(in metric tonnes) dry weight		
						Harbour	Estuary		capital	maintenance			
E/2C	x				Ondarroa	x			x	x	78 525		
E/3	x				Santander	x	x			x	123 309		
E/3B	x				Santofía	x		x		x	52 965		
E/3B	x				Colindres	x				x	55 297		
E/3C	x				Suances		x			x	68 716		
E/3D	x				San Vicente de la Barquera	x				x	18 951		
E/4B	x				Llanes	x				x	20 900		
E/4F	x				Tazones	x				x	2 438		
E/4C	x				Candás	x				x	8 194		
E/4E	x				Ribadesella	x				x	700		
E/5	x				Avilés	x			x	x	593 120		
E/5B	x				San Esteban de Pravia y San Juan de la Arena		x			x	70 175		
E/5C	x				Navia		x			x	151 375		
E/5E	x				Vega	x				x	875		
E/5F	x				Figueras	x				x	71 750		
E/7	x				A Coruña	x			x		16 820		
E/7C	x				Miño	x				x	23 238		
E/7C	x				Sada	x			x		36 314		
E/8	x				Vilagarcía de Arousa		x		x		680 998		
E/9B	x				Marín	x			x		199 150		
E/10	x				Huelva	x	x		x		60 678		
E/10	x				Punta Umbría	x				x	212 160		
E/12	x				Puerto de Santa María	x				x	134 961		
E/12	x				Sancti-Petri	x				x	60 909		
Total											2 872 141		
Sweden													
Skagerrak						x				x	250	(1)	
Tanum, Skagerrak						x				x	2 415	(2)	
Tanum, Skagerrak						x				x	1 312	(3)	
Göteborg, Kattegat						x				x	84	(4)	
Dalen & Vråkärr, Skagerrak						x				x	1 400	(5)	
Göteborg, Kattegat						x				x	17 000	(6)	
Falkenberg, Kattegat						x				x	36 000	(7)	
Jonstorp, Kattegat						x				x	750	(8)	
Total											23 211		
United Kingdom													
UK/CR030	x				Moray Firth	x				x	9 173		
UK/CR040	x				Spey Bay/Moray Firth	x				x	824		
UK/CR050	x				Grampian Coast	x				x	2 114		
UK/CR060	x				Grampian Coast	x				x	0		
UK/CR070	x				Grampian Coast	x				x	11 000		
UK/CR080	x				Grampian Coast	x			x		7 482		
UK/CR080	x				Grampian Coast	x				x	8 984		
UK/CR110	x				Dee River	x				x	131 518		
UK/DV010	x				Kent Coast			x	x		0		
UK/DV010	x				Kent Coast	x				x	425 818		

OSPAR-codes		categories				In case of dredged material					total quantity		notes
Deposit site		dredged material	inert material	fish waste	others	origin name of watersystem	type of areas dredged		Sea	dredging operation type		(in metric tonnes) dry weight	
UK/DV011		x				Kent Coast	x				x	0	
UK/DV040		x				Rother River and Kent Coast	x				x	27 214	
UK/FI002		x				Dounrey burn, Caithness			x		x	0	
UK/FO007		x				Grampian Coast	x				x	2 162	
UK/FO010		x				South Esk River		x		x		0	
UK/FO010		x				South Esk River	x				x	75 645	
UK/FO020		x				Tayside Coast	x				x	6 880	
UK/FO028		x				Firth of Tay	x				x	26 511	
UK/FO036		x				Firth Of Forth	x			x		0	
UK/FO038		x				Firth Of Forth	x				x	15 323	
UK/FO041		x				Firth Of Forth	x		x		x	25 572	
UK/FO042		x				Firth Of Forth	x		x		x	28 562	
UK/FO043		x				Firth Of Forth	x		x		x	30 625	
UK/FO044		x				Firth Of Forth	x				x	944 932	
UK/FO048		x				Firth Of Forth	x				x	1 995	
UK/FO080		x				Tweed River	x				x	7 905	
UK/HU015		x				Humberside Coast	x				x	10 612	
UK/HU020		x				Humber River	x				x	29 387	
UK/HU021		x				Humber River	x				x	10 417	
UK/HU030		x				Humber River	x				x	339 488	
UK/HU040		x				Humber River	x				x	887	
UK/HU041		x				Humber River	x				x	2 277	
UK/HU060		x				Humber River	x	x	x		x	2 700 352	
UK/HU080		x				Humber River	x	x			x	18 508	
UK/HU090		x				Humber River	x	x			x	238 213	
UK/HU123		x				Humber River			x	x		0	
UK/HU143		x				Great Ouse River	x				x	42 188	
UK/HU150		x				Yare River	x	x			x	26 815	
UK/HU151		x				Norfolk Coast	x				x	18 385	
UK/HU152		x				Norfolk Coast	x				x	0	
UK/HU153		x				Norfolk Coast	x				x	948	
UK/HU154		x				Norfolk Coast	x				x	0	
UK/HU170		x				Witham River	x				x	15 577	
UK/HU199		x				Orwell River	x				x	0	
UK/HU203		x				Humber Coast		x		x		0	
UK/IS035		x				Conway River	x				x	4 756	
UK/IS040		x				Anglesey Coast	x				x	0	
UK/IS065		x				Conway River	x				x	5 855	
UK/IS099		x				Dee River, Wales	x				x	3 481	
UK/IS102		x				Dee River, Wales		x			x	793 704	
UK/IS110		x				Mersey River	x	x			x	156 794	
UK/IS120		x				Mersey River/Liverpool Bay	x	x			x	113 935	
UK/IS128		x				Mersey River	x	x			x	0	
UK/IS140		x				Mersey River	x	x			x	709 634	
UK/IS150		x				Mersey River/Liverpool Bay		x		x		0	
UK/IS170		x				Wyre River	x				x	425 439	
UK/IS192		x				Lune River	x				x	2 105	
UK/IS200		x				Morecambe Bay	x	x			x	440 317	

OSPAR-codes	categories				In case of dredged material					total quantity		notes
	dredged material	inert material	fish waste	others	origin name of watersystem	type of areas dredged		Sea	dredging operation type		(in metric tonnes) dry weight	
						Harbour	Estuary		capital	maintenance		
UK/IS205	x				Cumbria Coast	x				x	382 536	
UK/IS231	x				Cumbria Coast	x				x	0	
UK/IS240	x				Cumbria Coast	x				x	3 143	
UK/IS241	x				Cumbria Coast	x				x	77 299	
UK/IS245	x				Cumbria Coast	x				x	4 886	
UK/IS400	x				Douglous (IOM)	x				x	600	
UK/IS420	x				Douglous (IOM)	x				x	0	
UK/IS591	x				Belfast Lough	x	x			x	14 501	
UK/IS620	x				Down Coast	x				x	0	
UK/IS650	x				Down Coast	x				x	6 725	
UK/IS671	x				Carlingford Lough	x				x	8 616	
UK/LU010	x				Camel River	x				x	1 407	
UK/LU055	x				Somerset Coast	x				x	0	
UK/LU070	x				Avon River	x	x			x	66 631	
UK/LU080	x				Avon River	x	x			x	70 372	
UK/LU083	x				Avon River	x	x			x	7 870	
UK/LU084	x				Avon River	x	x			x	32 305	
UK/LU085	x				Avon River	x	x			x	11 432	
UK/LU086	x				Avon River	x	x			x	0	
UK/LU087	x				Avon River	x				x	0	
UK/LU110	x				Taff R./Severn Est.	x				x	399 796	
UK/LU115	x				Severn Estuary	x				x	4 901	
UK/LU125	x				Tawe & Neath Rivers/Swansea Bay	x				x	435	
UK/LU130	x				Tawe & Neath Rivers/Swansea Bay	x			x		0	
UK/LU130	x				Tawe & Neath Rivers/Swansea Bay	x		x		x	1 027 429	
UK/LU140	x				Usk River	x				x	56 135	
UK/LU169	x				Milford Haven		x		x		83 971	
UK/LU169	x				Milford Haven	x				x	61 086	
UK/LU190	x				Milford Haven	x				x	1 897	
UK/MA010	x				Loch Ryan	x			x		0	
UK/MA021	x				Firth Of Clyde	x			x		0	
UK/MA021	x				Firth Of Clyde	x	x			x	274 334	
UK/MA025	x				Firth Of Clyde	x				x	11 000	
UK/MA050	x				Firth Of Clyde	x				x	24 055	
UK/MA051	x				Firth Of Clyde	x				x	0	
UK/MA545	x				Foyle River	x				x	14 135	
UK/NS100	x				Suffolk Coast			x	x		12 122	(1)
UK/PL031	x				Tamar River & Kingsbridge Estuary	x			x		26 390	
UK/PL031	x				Tamar River & Kingsbridge Estuary	x	x			x	13 272	
UK/PL060	x				Fowey River/Cornwall Coast South	x				x	1 161	
UK/PL075	x				Falmouth Harbour/Truro River/Mounts Bay		x		x		0	
UK/PL075	x				Falmouth Harbour/Truro River/Mounts Bay	x				x	154	
UK/PO070	x				Teign River	x				x	24 859	
UK/PO090	x				Teign River	x				x	0	
UK/PO501	x				Jersey	x			x		700	
UK/TH005	x				Waveney River	x				x	33 081	
UK/TH034	x				Orwell River		x		x		2 527	
UK/TH034	x				Orwell River	x				x	102 595	

OSPAR-codes		categories				In case of dredged material					total quantity		notes
Deposit site		dredged material	inert material	fish waste	others	origin name of watersystem	type of areas dredged		Sea	dredging operation type		(in metric tonnes) dry weight	
UK/TH052		x				Orwell/Stour Rivers + Thames Estuary	x	x	x		x	1 676 519	
UK/TH056		x				Orwell River	x			x		467 167	
UK/TH062		x				Blackwater River		x			x	1 922	
UK/TH070		x				Thames Estuary	x	x	x		x	56 348	
UK/TH140		x				Kent Coast	x				x	43 413	
UK/TH211		x				Orwell River	x	x			x	0	
UK/TH216		x				Orwell River	x	x			x	24 168	
UK/TH217		x				Orwell River	x	x			x	13 227	
UK/TH218		x				Orwell River	x	x			x	7 907	
UK/TH219		x				Orwell River	x	x			x	7 884	
UK/TY022		x				Coquet River		x			x	0	
UK/TY025		x				Coquet River		x			x	0	
UK/TY042		x				Northumberland Coast	x				x	89 000	
UK/TY070		x				Tyne River		x		x		0	
UK/TY070		x				Tyne River	x	x			x	44 656	
UK/TY081		x				Tyne River	x	x		x		0	
UK/TY081		x				Tyne River	x	x			x	53 925	
UK/TY085		x				Tyne River	x			x		142 695	
UK/TY090		x				River Wear	x				x	21 314	
UK/TY130		x				Durham Coast	x				x	15 725	
UK/TY150		x				Tees River/Hartlepool Bay	x	x		x		0	
UK/TY150		x				Tees River/Hartlepool Bay	x	x	x		x	0	
UK/TY160		x				Tees River/Hartlepool Bay	x	x		x		70 583	
UK/TY160		x				Tees River/Hartlepool Bay	x	x	x		x	984 600	
UK/TY180		x				Esk River	x		x		x	11 100	
UK/TY181		x				North Yorkshire Coast			x		x	32 449	
UK/TY190		x				North Yorkshire Coast	x				x	4 057	
UK/WI010		x				Ouse River (E.Sussex)	x		x		x	158 244	
UK/WI020		x				East Sussex Coast	x				x	12 879	
UK/WI031		x				Sussex Coast	x				x	33 295	
UK/WI045		x				Chichester Harbour	x				x	0	
UK/WI046		x				Chichester Harbour	x				x	2 116	
UK/WI060		x				So'ton Water, IoW, Portsmouth...	x	x		x		52 412	
UK/WI060		x				So'ton Water, IoW, Portsmouth...	x	x	x		x	317 262	
UK/WI060		x				So'ton Water, IoW, Portsmouth...			x		x	515	
UK/WI071		x				Ryde (IOW)	x				x	1 759	
UK/WI080		x				So'ton Water, IoW etc.	x			x		0	
UK/WI080		x				So'ton Water, IoW etc.	x	x			x	20 558	
UK/WI090		x				So'ton Water, IoW etc.	x	x	x		x	76	
UK/WI110		x				Poole Harbour	x			x		6 225	
UK/WI110		x				Poole Harbour	x	x	x		x	35 316	
UK/WI111		x				Poole Harbour	x		x		x	5 518	
UK/IS015				x		New Quay, Wales						1 708	
Total												15 181 209	

Table 3b

Total loads (method of determination indicated in Part II)

OSPAR-codes Deposit site	in tonnes													in kilogrammes														
	Cd	Hg	As	Cr	Cu	Pb	Ni	Zn	Oil	ΣPAH9	Total PAH	N	P	CB 28	CB 52	CB 101	CB 118	CB 138	CB 153	CB 180	ΣPCB7 Total CB	HCB	g- HCH	DDT	TBT	DBT	other/ notes	
Belgium																												
B/1	0,38	0,14	14,97	46,8	10,38	26,8	14,56	83,54			0,71										0					0,034		
B/1	0,37	0,16	16,91	62,31	14,48	34	19,24	111,17			0,92										0					0,031		
B/1	0,07	0,03	4,02	11,15	2,05	5,74	3,66	18,03			0,12										0					0,007		
B/1	0,13	0,05	7,85	21,76	3,99	11,19	7,14	35,18			0,23										0					0,013		
B/3	0,2	0,07	7,69	24,03	5,33	13,76	7,48	42,9			0,36										0					0,017		
B/3	0,22	0,1	10,14	37,36	8,68	20,39	11,54	66,66			0,55										0					0,019		
B/3	0,6	0,22	18,81	74,84	20,69	41,6	22,47	145,28			1,48										0					0,06		
B/3	0,02	0,01	1,16	3,21	0,59	4,65	1,05	5,19			0,03										0					0,002		
B/3	0,02	0,01	1,05	2,91	0,53	1,5	0,96	4,71			0,03										0					0,002		
B/6	1,2	0,44	37,94	150,89	41,73	83,87	45,31	292,92			2,99										0					0,121		
B/6	0,3	0,13	13,55	49,92	11,6	27,24	15,42	89,06			0,74										0					0,025		
B/6	0	0	0,19	0,53	0,06	0,22	0,14	0,79			0										0,004					0		
B/6	0,001	0	0,03	0,09	0,01	0,04	0,02	0,14			0										0					0		
B/6	0,006	0,003	0,27	0,94	0,25	0,54	0,09	1,58			0,02										0					0,001		
B/9	0,04	0,02	2,25	7,76	1,71	4,1	2,36	13,28			0,096										0,003					0,015		
B/9	0	0	0,02	0,09	0,03	0,06	0,03	0,2			0,002										0					0		
B/9	0,22	0,07	6,48	23,15	9,03	15,27	7,22	53,76			0,71										0					0,024		
B/9	0,001	0	0,04	0,15	0,06	0,1	0,05	0,35			0,005										0					0		
B/99	0,01	0	0,44	1,06	0,21	0,47	0,31	2,04			0,008										0					0		
B/99	0,01	0	0,28	0,68	0,13	0,3	0,2	1,32			0,005										0					0		
B/99	0	0	0,19	0,72	0,23	0,46	0,22	1,34			0,014										0					0		
B/99	0,01	0	0,38	1,41	0,45	0,9	0,44	2,63			0,028										0					0,001		
B/99	0,01	0	0,47	1,75	0,59	1,12	0,55	3,28			0,035										0					0		
B/HP1	<d.l.	<d.l.	<d.l.	<d.l.	<d.l.	<d.l.	<d.l.	<d.l.			<d.l.										<d.l.					<d.l.		
B/HP1	<d.l.	<d.l.	<d.l.	4,3	<d.l.	<d.l.	0,52	5,1			0,001										<d.l.					<d.l.		
B/HP1	<d.l.	<d.l.	<d.l.	15,14	<d.l.	<d.l.	1,81	17,95			0,005										<d.l.					<d.l.		
B/HP1	<d.l.	<d.l.	<d.l.	34,65	3,24	<d.l.	<d.l.	42,02			0,0206										<d.l.					<d.l.		
B/HP1	<d.l.	<d.l.	<d.l.	6,04	0,96	<d.l.	<d.l.	9,08			0,006										<d.l.					<d.l.		
B/HP1	<d.l.	0	<d.l.	11,24	1,32	<d.l.	1,6	16,26			0,005										<d.l.					<d.l.		
B/HP1	<d.l.	0,01	<d.l.	8,5	<d.l.	6,49	1,51	9,63			0,093										<d.l.					<d.l.		
B/HP1	<d.l.	0,01	<d.l.	14,09	<d.l.	10,76	2,5	15,98			0,155										<d.l.					<d.l.		
B/HP1	<d.l.	0,01	<d.l.	29,87	<d.l.	<d.l.	4,25	32,5			0,09										<d.l.					<d.l.		
B/HP3	<d.l.	0,01	<d.l.	18,14	<d.l.	<d.l.	3,39	33,94			0,034										<d.l.					<d.l.		
B/HP3	<d.l.	0,02	<d.l.	42,01	4,84	<d.l.	7,04	69,51			0,024										<d.l.					<d.l.		
B/HP3	<d.l.	0	<d.l.	2,04	<d.l.	<d.l.	<d.l.	6,79			0,003										<d.l.					0,06		
B/HP3	<d.l.	0	<d.l.	5,74	0,68	<d.l.	0,82	8,3			0,003										<d.l.					<d.l.		
B/RVB	<d.l.	0	<d.l.	1,19	<d.l.	<d.l.	0,22	2,22			0,002										<d.l.					<d.l.		
B/RVB	<d.l.	>d.l.	<d.l.	6,2	0,77	<d.l.	<d.l.	7,14			0,005										<d.l.					<d.l.		
B/RVB	<d.l.	0	<d.l.	3,53	0,41	<d.l.	0,59	5,84			0,002										<d.l.					<d.l.		
B/RVB	<d.l.	0	<d.l.	4,07	0,67	<d.l.	<d.l.	6,18			0,005										<d.l.					<d.l.		
B/RVB	<d.l.	<d.l.	<d.l.	2,87	0,27	<d.l.	<d.l.	3,48			0,002										<d.l.					<d.l.		
B/RVB	<d.l.	<d.l.	<d.l.	0,68	0,11	<d.l.	<d.l.	1,02			0,001										<d.l.					<d.l.		
B/RVB	<d.l.	0	<d.l.	0,08	0,01	<d.l.	0,01	0,12			0										<d.l.					<d.l.		
B/RVB	<d.l.	0	0,62	0,3	0,09	0,18	0,07	1,03			0,0014										0,13					<d.l.		
B/SN31	<d.l.	<d.l.	<d.l.	<d.l.	<d.l.	<d.l.	<d.l.	<d.l.			<d.l.										<d.l.					<d.l.		
B/SN51	<d.l.	0	<d.l.	0,09	<d.l.	<d.l.	0,02	0,17			0										<d.l.					<d.l.		
B/SN51	<d.l.	<d.l.	<d.l.	4,94	0,61	<d.l.	<d.l.	5,69			0,004										<d.l.					<d.l.		
B/SN51	<d.l.	0	<d.l.	1,52	0,17	<d.l.	0,25	2,51			0,001										0,75					<d.l.		
B/SN51	<d.l.	0,01	3,55	1,71	0,54	1,04	0,42	5,92			0,08										<d.l.					0,37		
B/WALS	<d.l.	0,01	0,01	19,29	<d.l.	<d.l.	3,61	36,1			0,036										<d.l.					<d.l.		
B/WALS	<d.l.	<d.l.	<d.l.	76,04	9,4	<d.l.	<d.l.	87,57			0,061										<d.l.					<d.l.		
B/WALS	<d.l.	0	<d.l.	9,32	1,07	<d.l.	1,56	15,42			0,005										<d.l.					<d.l.		
B/WALS	<d.l.	0	<d.l.	6,24	1,03	<d.l.	<d.l.	9,47			0,008										<d.l.					<d.l.		
B/WALS	<d.l.	0	<d.l.	2,47	<d.l.	<d.l.	<d.l.	8,22			0,003										<d.l.					<d.l.		
B/WALS	<d.l.	<d.l.	<d.l.	8,85	1,41	<d.l.	<d.l.	13,3			0,009										<d.l.					<d.l.		
B/WALS	<d.l.	0	<d.l.	7,57	0,89	<d.l.	1,08	10,94			0,003										<d.l.					<d.l.		
B/WALS	<																											

OSPAR-codes	in tonnes													in kilogrammes															
	Deposit site	Cd	Hg	As	Cr	Cu	Pb	Ni	Zn	Oil	ΣPAH9	Total PAH	N	P	CB 28	CB 52	CB 101	CB 118	CB 138	CB 153	CB 180	ΣPCB7	Total CB	HCB	g-HCH	DDT	TBT	DBT	other/ notes
B/int15	<d.l.	0	0	1,54	0,39	0,87	0,33	3,71				0,023										0,38				<d.l			
B/int15	<d.l.	0,04	0,04	10,87	3,31	7,47	2,69	37,76				0,888										4,31				1,4			
B/int15	<d.l.	na	na	na	na	na	na	na				na										na							
B/int 1bis	<d.l.	0,03	0,03	4,71	1,48	2,85	1,15	16,3				0,22										2,06				1,03			
B/int 1bis	<d.l.	0,01	0,01	5,67	1,05	3,27	1,25	9,19				0,029										1,4							
B/int 1bis	<d.l.	0,15	0,15	61,29	15,67	34,83	13,15	147,93				0,935										14,98							
B/int 1bis	<d.l.	0,11	0,11	27,86	8,48	19,13	6,9	97,76				2,275										11,05				3,59			
B/int 1bis	<d.l.	<d.l	<d.l	<d.l	<d.l	<d.l	<d.l	<d.l				0,006										<d.l				<d.l			
B/int 1bis	<d.l.	na	na	na	na	na	na	na				na										na				<d.l			
B/int8	<d.l.	<d.l	<d.l	6,55	1,04	<d.l	<d.l	9,84				0,006										<d.l							
B/int8	<d.l.	0	<d.l	7,33	0,86	<d.l	1,04	10,6				0,003										<d.l				<d.l			
B/int8	<d.l.	0	<d.l	0,95	<d.l	0,73	0,17	1,08				0,01										<d.l				<d.l			
B/HP1	<d.l.	0,01	<d.l	8,79	0,73	<d.l	1,85	11,17				0,047										0,44				<d.l			
B/HP1	<d.l.	<d.l	<d.l	26,09	1,79	<d.l	3,38	24,66				0,09										<d.l				<d.l			
B/HP1	<d.l.	0	<d.l	3,81	<d.l	2,91	0,67	4,32				0,042										<d.l				<d.l			
B/HP3	<d.l.	0,01	<d.l	10,86	0,9	<d.l	2,29	13,8				0,058										0,54				<d.l			
B/RVB	<d.l.	<d.l	<d.l	2,37	0,29	<d.l	<d.l	2,73				0,002										<d.l				<d.l			
B/RVB	<d.l.	0	<d.l	0,71	0,08	<d.l	0,12	1,18				0										<d.l				<d.l			
B/RVB	<d.l.	0	<d.l	0,13	0,02	<d.l	<d.l	0,2				0										<d.l				<d.l			
B/RVB	<d.l.	<d.l	<d.l	1,34	<d.l	<d.l	0,16	1,59				0										<d.l				<d.l			
B/RVB	<d.l.	<d.l	<d.l	2,62	0,25	<d.l	<d.l	3,18				0,002										<d.l				<d.l			
B/SH51	<d.l.	0	<d.l	0,93	<d.l	<d.l	0,17	1,75				0,002										<d.l				<d.l			
B/SH51	<d.l.	<d.l	<d.l	0,67	0,08	<d.l	<d.l	0,77				0,001										<d.l				<d.l			
B/SH51	<d.l.	0	<d.l	3,07	0,35	<d.l	0,52	5,09				0,002										<d.l				<d.l			
B/SN11	<d.l.	0,01	<d.l	11,97	0,99	<d.l	2,52	15,21				0,064										0,6				<d.l			
B/SN11	<d.l.	0	<d.l	2,73	<d.l	2,09	0,48	3,1				0,03										<d.l				<d.l			
B/SN31	<d.l.	0,02	<d.l	18,85	1,56	<d.l	3,97	23,95				0,101										0,94				<d.l			
B/SN31	<d.l.	<d.l	<d.l	7,03	<d.l	<d.l	0,84	8,34				0,002										<d.l				<d.l			
B/SN31	<d.l.	0,01	<d.l	10,53	<d.l	8,04	1,87	11,94				0,116										<d.l				<d.l			
B/SN31	<d.l.	0	<d.l	4,70	<d.l	3,59	0,83	5,33				0,052										<d.l				<d.l			
B/SN31	<d.l.	0	<d.l	1,50	<d.l	<d.l	0,21	1,63				0										<d.l				<d.l			
B/SN51	<d.l.	0	<d.l	3,87	<d.l	<d.l	0,72	7,24				0,007										<d.l				<d.l			
B/SN51	<d.l.	<d.l	<d.l	10,52	1,3	<d.l	<d.l	12,12				0,009										<d.l				<d.l			
B/SN51	<d.l.	0,01	<d.l	14,80	1,7	<d.l	2,48	24,49				0,009										<d.l				<d.l			
B/SN51	<d.l.	0	<d.l	2,00	0,33	<d.l	<d.l	3,03				0,003										<d.l				<d.l			
B/SN51	<d.l.	<d.l	<d.l	0,46	0,07	<d.l	<d.l	0,7				0										<d.l				<d.l			
B/SN51	<d.l.	0	<d.l	7,38	0,87	<d.l	1,05	10,67				0,003										<d.l				<d.l			
B/SN51	<d.l.	0	0,84	0,41	0,13	0,24	0,1	1,4				0,019										0,18				<d.l			
B/int1a	<d.l.	<d.l	<d.l	3,29	0,23	<d.l	0,43	3,11				0,001										<d.l				<d.l			
B/int1b	<d.l.	<d.l	<d.l	4,84	0,33	<d.l	0,63	4,57				0,002										<d.l				<d.l			
B/int18	<d.l.	0	<d.l	4,43	<d.l	<d.l	0,27	2,67				0,003										<d.l				<d.l			
B/int18	<d.l.	<d.l	<d.l	5,60	0,69	<d.l	<d.l	6,45				0,005										<d.l				<d.l			
B/int18	<d.l.	<d.l	<d.l	0,18	0,02	<d.l	<d.l	0,21				0										<d.l				<d.l			
B/int18	<d.l.	<d.l	<d.l	0,48	0,08	<d.l	<d.l	0,72				0										<d.l				<d.l			
B/int12	1,59	0,59	55,27	77,46	47,31	76,29	21,69	352,55				0,17										70,34				18,26			
B/int12	<d.l	0,01	<d.l	4,10	1,05	2,33	0,88	9,89				0,063										1				<d.l			
B/int12	0	0	<d.l	0,08	0,03	0,06	0,02	0,33				0,003										0,04				0,01			
B/int12	<d.l	0	2,68	1,14	0,35	0,78	0,28	3,97				0,093										0,45				0,15			
B/int12	0,81	0,23	10,09	28,85	17,04	27,67	7,96	138,09				0,995										13,18				8,12			
B/int12	0,12	0,03	3,05	4,90	2,9	4,74	1,36	25,16				0,201										3,33				1,36			
B/int12	1	0,32	35,02	46,08	23,75	40,37	11,56	204,59				1,844										29,83				13,24			
B/int12	na	na	na	na	na	na	na	na				na										na				na			
B/int13	1,62	0,6	56,37	79,00	48,25	77,8	22,12	359,55				0,173										71,74				18,62			
B/int13	<d.l	0,01	<d.l	6,10	1,56	3,46	1,31	14,71				0,093										1,49				<d.l			
B/int13	0	0	<d.l	0,17	0,07	0,12	0,04	0,68				0,007										0,08				0,03			
B/int13	<d.l	0	2,5	1,06	0,32	0,73	0,26	3,69				0,087										0,42				0,14			
B/int13	0,91	0,26	11,33	32,42	19,15	31,09	8,94	155,2				1,118										14,81				9,13			
B/int13	0,11	0,03	2,83	4,54	2,68	4,4	1,26	23,32				0,186										3,09				1,26			
B/int13	0,89	0,29	32,22	41,07	21,17	35,98	10,3	182,37				1,644										26,59				11,81			
B/int13	na	na	na	na	na	na	na	na				na										na				na			
B/int1bis	<d.l	0	1,82	0,88	0,28	0,53	0,21	3,04				0,041										0,38				0,19			
B/int1bis	<d.l	0	<d.l	1,76	0,32	1,02	0,39	2,85				0,009										0,43				<d.l			
B/int1bis	<d.l	0,01	<d.l	4,25	1,09	2,41	0,91	10,25				0,64										1,04				<d.l			
B/int1bis	0,11	0,03	<d.l	3,41	1,73	3,01	0,79	14,42				0,107										1				0,34			
B/int1bis	0,31	0,1	<d.l	16,72	6,99	12,03	3,98	66,0				0,638										7047				2,86			
B/int1bis	<d.l	0,06	35,82	15,22	4,63	10,45	3,77	52,85				1,243										6,03				1,96			
B/int1bis	0,17	0,04	<d.l	9,94	3,34	7,58	2,36	37,0																					

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OSPAR-codes	in tonnes													in kilogrammes																
	Deposit site	Cd	Hg	As	Cr	Cu	Pb	Ni	Zn	Oil	ΣPAH9	Total PAH	N	P	CB 28	CB 52	CB 101	CB 118	CB 138	CB 153	CB 180	ΣPCB7	Total CB	HCB	g-HCH	DDT	TBT	DBT	other/ notes	
F/03317 ; F/03315 ; F/03316		0,224	0,038	4,120	10,084	5,248	8,385	5,638	36,577		Ni	Ni	Ni	0,33	0,14	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	
F/03318 ; F/03307 ; F/03317 ; F/03311		1,266	0,215	21,559	53,673	26,810	48,063	31,180	197,912		Ni	Ni	Ni	1,88	0,85	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	Ni	
F/03318 ; F/03307 ; F/03317 ; F/03311; F/03306 ; F/03305 ; F/03303 ; F/03302		0,171	16,640	43,834	24,340	36,349	25,956	159,019	0,000		Ni	0,020	Ni	0,67	0,00	Ni	Ni	Ni	Ni	Ni	Ni	Ni	13,4625	Ni	Ni	Ni	Ni	Ni	Ni	
F/06401		0,000	0,000	0,030	0,000	0,000	0,039	0,000	0,132	Ni	Ni	Ni	Ni	Ni	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0,11627	Ni	Ni	Ni	Ni	Ni	Ni	
F/06401 / F/06402		0,000	0,114	2,397	0,000	3,901	3,335	2,518	11,786	Ni	Ni	0,229	0,11	0,07	<DL	<DL	2,861884	<DL	4,29283	4,29283	4,292827	4,198384	9,20573	Ni	Ni	Ni	0,707	<DL		
F/06401 / F/06403		0,000	0,000	2,256	0,000	7,532	5,217	4,383	23,792	Ni	Ni	0,198	0,39	0,13	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	5,38446	Ni	Ni	Ni	<DL	<DL		
F/06403		0,000	0,000	0,004	0,000	0,009	0,010	0,007	0,048	Ni	Ni	Ni	Ni	Ni	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0,02428	Ni	Ni	Ni	<DL	<DL		
F/06404		0,00	0,00	0,19	0,47	0,52	0,31	0,38	2,10	Ni	Ni	0,01	0,00	0,01	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0,04	Ni	Ni	Ni	6,77	0,31		
F/06405		0,000	0,000	0,037	0,000	0,081	0,100	0,070	0,480	Ni	Ni	Ni	0,01	0,00	<DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL	0,247	Ni	Ni	Ni	0,009	<DL		
Total		3,87	19,21	231,47	579,69	298,27	487,76	406,84	1 383,56	0,00	4,27	6,39	35,51	9,36	38,69	68,79	85,77	73,34	88,86	89,70	77,93	493,47	32,50	0,00	0,00	0,00	220,86	322,71	0,00	
Germany																														pp DDT
12		0,001	0,002	0,089	0,238	0,210	0,179	0,108	1,337	0,281	0,003	0,005	11,869	3,869	0,002	0,00	0,002	0,002	0,003	0,005	0,001	0,017		0,000	<0,0003*	<0,0003*	0,491	0,035	<0,0003*	
13		0,004	0,006	0,349	0,921	0,296	0,510	0,409	2,404	1,217	0,005	0,008	41,880	11,712	0,011	0,01	0,016	<0,0012*	0,025	0,035	0,023	0,118		0,016	<0,0012*	<0,0012*	0,105	<0,012*	<0,0012*	
20		0,004	0,002	0,178	0,817	0,213	0,458	0,265	1,302	2,158	0,009	0,009	ND	ND	0,008	0,01	0,006	0,008	0,008	0,011	0,005	0,050		0,004	0,002	0,006	0,244	0,070	0,005	
21		0,000	0,000	0,005	0,011	0,008	0,014	0,009	0,047	0,013	ND	0,000	0,900	0,250	0,000	0,000	0,000	0,000	0,001	0,001	0,003		0,000	0,000	0,000	0,000	0,004	0,001	0,000	
22		0,001	0,001	0,032	0,070	0,053	0,094	0,056	0,305	0,086	ND	0,002	5,848	1,628	0,000	0,00	0,004	0,003	0,004	0,005	0,001	0,020		0,001	0,001	0,002	0,029	0,009	0,001	
25		0,000	0,000	0,011	0,024	0,019	0,033	0,017	0,123	0,036	ND	0,001	7,547	0,907	0,000	0,00	0,001	0,001	0,001	0,001	0,000	0,004		0,000	0,000	0,001	0,011	0,004	0,000	
30		0,000	0,000	0,012	0,027	0,020	0,032	0,020	0,123	0,034	ND	0,001	5,459	0,918	0,000	0,00	0,001	0,001	0,002	0,002	0,001	0,006		0,000	0,000	0,000	0,014	0,005	0,000	
32		0,004	0,002	0,114	0,242	0,175	0,284	0,194	1,149	0,279	ND	0,008	46,699	8,270	0,000	0,00	0,010	0,007	0,014	0,016	0,005	0,057		0,0026	0,0007	0,0037	0,128	0,051	0,003	
40		0,005	0,004	0,338	0,769	0,284	0,716	0,388	2,306	<1,9*	0,012	0,016	50,920	27,284	<0,0176*	0,08	0,050	0,037	0,044	0,065	0,029	0,319		<0,0095*	<0,0019*	<0,0095*	0,075	0,069	<0,0095*	
45		0,001	0,000	0,017	0,031	0,024	0,045	0,025	0,145	0,035	ND	0,001	2,791	0,589	0,001	0,00	0,002	0,001	0,001	0,001	0,000	0,007		0,000	0,000	0,000	0,004	0,003	0,000	
54		0,014	0,016	0,820	1,341	1,481	0,847	0,635	4,965	1,657	0,012	0,017	43,993	17,974	0,033	0,03	<0,0027*	<0,0027*	0,044	0,055	<0,0027*	0,187		0,033	<0,0027*	<0,0027*	0,078	0,027	<0,0027*	
56		0,015	0,010	0,706	3,487	0,858	2,109	1,141	5,662	6,300	0,046	0,056	ND	ND	0,023	0,01	0,020	0,025	0,039	0,048	0,017	0,187		0,009	0,004	0,007	1,030	0,266	0,008	
57		0,514	0,276	5,614	12,149	12,632	12,526	6,955	94,636	<34,5*	0,359	0,461	1 035,062	408,338	0,213	0,21	0,465	0,259	0,807	1,111	0,736	3,804		2,086	0,052	1,269	19,032	5,940	3,171	
58		0,006	0,002	0,183	0,325	0,260	0,428	0,266	1,496	0,507	ND	0,014	16,494	12,184	0,001	0,01	0,017	0,014	0,022	0,029	0,007	0,098		0,005	0,001	0,006	0,085	0,054	0,004	
63		0,174	0,098	8,591	23,515	7,440	16,221	11,554	58,662	41,992	0,357	0,496	1 388,734	491,711	0,232	0,18	0,273	0,261	0,465	0,647	0,272	2,334		0,378	0,044	0,148	3,240	1,818	0,186	
65		2,224	1,145	27,257	55,935	52,679	57,971	33,735	414,565	196,213	1,533	2,019	5 892,143	1 906,007	1,114	1,03	1,949	1,262	3,228	4,395	2,943	15,921		8,958	0,268	5,629	61,769	22,402	13,659	
66		0,274	0,141	3,352	6,879	6,478	7,129	4,149	50,982	24,130	0,189	0,248	724,596	234,394	0,1370	0,13	0,240	0,155	0,397	0,540	0,362	1,958		1,102	0,033	0,692	7,596	2,755	1,680	
70		<0,012*	<0,007*	0,578	1,968	0,808	1,672	0,894	4,506	<9,2*	0,147	0,186	410,467	127,943	<0,057*	<0,0504*	<0,099*	<0,0783*	0,170	0,215	0,142	<0,8123*		<0,0601*	<0,0478*	<0,0557*	0,777	0,419	<0,0926*	
71		<0,101*	<0,053*	4,736	16,134	6,623	13,710	7,328	36,945	<75,5*	1,204	1,527	3 365,200	1 048,940	<0,4672*	<0,4135*	<0,8119*	<0,6423*	1,397	1,760	1,167	<6,6599*		<0,493*	<0,392*	<0,4565*	6,372	3,437	<0,7593*	
85		0,228	0,088	5,416	18,765	8,255	19,827	10,237	70,293	37,729	0,304	0,407	1 487,753	592,615	0,188	0,16	0,453	0,307	0,787	1,171	0,621	3,689		0,1855	<0,0317*	0,1459	42,661	9,549	0,423	
86		<0,550	0,212	13,083	45,329	19,942	47,895	24,729	169,800	91,138	0,734	0,984	3 593,837	1 431,529	0,453	0,39	1,095	0,742	1,900	2,829	1,499	8,912		0,448	<0,0766*	0,352	103,052	23,066	1,023	
88		0,549	0,376	13,191	32,074	18,770	24,287	16,073	150,743	<85,0*	0,523	0,696	1 528,180	832,258	0,272	0,34	0,851	0,430	1,345	2,025	1,222	6,486		2,175	<0,0762*	0,932	33,193	9,977	3,365	
93		0,041	0,035	1,246	3,590	1,678	2,653	1,618	13,368	<12,3*	0,060	0,084	178,797	106,204	0,037	0,04	0,096	0,057	0,138	0,201	0,113	0,682		0,163	0,016	0,034	<2,7054*	<0,8614*	0,133	
96		0,783	0,667	24,081	69,381	32,435	51,272	31,272	258,331	<238,3*	1,165	1,616	3 455,304	2 052,427	0,710	0,79	1,850	1,095	2,660	3,891	2,183	13,180		3,147	0,310	0,664	<52,2827*	<16,6461*	2,569	
98		0,335	0,285	10,308	29,697	13,883	21,946	13,386	110,574	<102,0*	0,499	0,692	1 478,985	878,507	0,304	0,34	0,792	0,469	1,138	1,666	0,935	5,641		1,347	0,133	0,284	<22,3787*	<7,1251*	1,100	
101		2,760	3,362	93,696	265,327	126,188	222,914	126,012	1 062,173	269,406	7,183	9,283	13 235,538	5 068,610	2,776	3,79	10,642	5,385	14,888	24,441	13,884	75,802		14,888	0,419	2,433	187,860	105,490	23,393	
109		0,011	0,009	0,327	0,941	0,440	0,695	0,424	3,504	<3,233*	0,016	0,022	46,869	27,840	0,010	0,01	0,025	0,015	0,036	0,053	0,030	0,179		0,043	0,004	0,009	<0,7092*	<0,2258*	0,035	
119		0,258	0,267	10,090	30,317	14,408	26,648	15,858	103,489	49,886	0,459	0,632	2 131,071	721,500	0,339	0,28	0,597	0,455	1,000	1,466	0,724	4,856		1,788	0,119	1,190	12,038	5,189	2,597	
121		0,965	1,176	32,766	92,785	44,128	77,953	44,066	371,442	94,211	2,512	3,246	4 628,462	1 772,490	0,971	1,32	3,722	1,883	5,206	8,547	4,855	26,508		5,206	0,147	0,851	65,695	36,890	8,181	
127		0,000	<0,0003*	0,040	0,086	0,074	0,049	0,043	0,318	0,102	0,002	0,003	5,585	1,596	<0,0002*	0,00	0,01													

OSPAR-codes Deposit site	in tonnes														in kilogrammes																
	Cd	Hg	As	Cr	Cu	Pb	Ni	Zn	Oil	ΣPAH9	Total PAH	N	P		CB 28	CB 52	CB 101	CB 118	CB 138	CB 153	CB 180	ΣPCB7	Total CB	HCb	g- HCH	DDT	TBT	DBT	other/ notes		
E1	<0,001	<0,001	NI	0,120	0,105	0,172	0,084	0,564	NI	0,001	0,001	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0,001	<0,002	NI	NI	NI	NI	NI	NI		
E2/C	0,002	<0,001	NI	0,197	0,230	0,262	0,162	0,925	NI	0,001	0,001	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0,001	<0,001	NI	NI	NI	NI	NI	NI		
E/2C	0,062	0,025	NI	0,085	0,125	0,100	0,075	0,300	NI	0,250	0,500	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		
E/3	0,329	0,110	3,378	5,190	7,430	18,500	2,605	70,020	NI	NI	NI	NI	NI	0,001	0,000	0,000	0,000	0,001	0,001	0,001	0,005	0,001	NI	NI	NI	NI	NI	NI	NI		
E/3B	0,015	0,006	0,104	0,283	0,383	0,360	0,205	2,403	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	0,439	NI	NI	NI	NI	NI	NI	NI	NI		
E/3B	<0,014	0,008	0,457	0,310	1,555	0,114	0,225	0,572	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	<0,079	NI	NI	NI	NI	NI	NI	NI	NI		
E/3C	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
E/3D	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
E/4B	0,001	0,002	0,021	0,039	0,094	0,106	0,019	0,238	ND	ND	ND	ND	ND	0,002	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		
E/4F	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
E/4C	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	NI	NI	NI		
E/4E	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	NI	NI	NI		
E/5	0,089	0,055	0,338	0,700	1,001	2,360	0,181	7,256	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		
E/5B	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	NI	NI	NI		
E/5C	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	NI	NI	NI		
E/5E	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	NI	NI	NI		
E/5F	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	NI	NI	NI		
E/7	0,000	0,007	NI	NI	NI	0,002	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		
E/7C	<0,014	0,001	ND	0,122	0,097	0,115	0,098	0,473	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		
E/7C	<0,015	0,003	0,305	0,252	0,218	0,080	0,110	0,802	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		
E/8	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	NI	NI	NI		
E/9B	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	NI	NI	NI		
E/10	0,149	0,276	0,316	2,819	49,685	14,420	1,709	62,329	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI		
E/10	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	NI	NI	NI		
E/12	0,067	0,077	0,572	3,522	3,191	1,748	2,533	6,948	NI	NI	NI	NI	NI	0,000	0,000	0,000	0,000	0,000	0,000	0,001	0,002	0,000	NI	NI	NI	NI	NI	NI	NI		
E/12	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	NI	NI	NI		
Total	0,71	0,57	5,49	13,64	64,11	38,34	8,01	152,83		0,25	0,50			0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,45	0,00								
Sweden																															
SWE/1	EX	EX	EX	EX	EX	EX	EX	EX	EX		EX	EX	EX									EX		EX	EX	EX	EX	EX		(1)	
SWE/2	EX	EX	EX	EX	EX	EX	EX	EX	EX			EX	EX									EX		EX	EX	EX	EX	EX		(2)	
SWE/2	0,002	<	0,007	0,039	0,034	0,017	0,032	0,156	ND		0,000	ND	ND								<		ND	ND	ND	ND	1,4		(3)		
SWE/10	0,000	0,000	NI	NI	NI	NI	NI	NI	NI		NI	ND	ND									<		ND	ND	ND	ND	<		(4)	
SWE/10	0,000	0,000	ND	0,062	0,037	0,032	0,032	0,189	ND		ND	ND	ND								ND		ND	ND	ND	ND	ND		(5)		
SWE/11	0,002	0,001	NI	NI	NI	NI	NI	NI	NI		NI	ND	ND		NI	NI	NI	NI	NI	NI	0,03		ND	ND	ND	ND	<		(6)		
SWE/11	0,020	0,003	0,343	0,751	0,816	0,729	0,495	3,882	ND		0,000	ND	ND	0,004	0,01	0,03	0,02	0,09	0,1	0,05	0,3		ND	ND	ND	ND	3	0,7	(7)		
SWE/18	0,000	0,000	0,002	0,033	0,007	0,004	0,004	0,025	ND		ND	ND	ND								<		ND	ND	ND	ND	0,003	0,002	(8)		
Total	0,02			0,89	0,89	0,78	0,56	4,25													0,33					4,40	0,702				
United Kingdom																															
CR030																															
CR040	0	0	0	0	0	0	0	0																							
CR050																															
CR060																															
CR070																															
CR080																															
CR080	0,0023	0,0006	0,0453	0,2310	0,0675	0,1218	0,1424	0,4149																							
CR110																															
DV010																															
DV010	0,0535	0,1053	7,5897	14,7027	11,5234	12,7473	7,6680	37,1314		0,3065	0,5779																27,813	2,591			
DV011	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000		0,0000	0,0000																0	0			
DV040	0,0022	0,0039	0,4968	0,7728	0,2429	0,4968	0,3643	0,7176																				0,221	0,166		
FO02																															
FO007																															
FO010																															
FO010																															
FO020																															
FO028																															
FO036																															
FO038																															
FO041	0,0002	0,0007	0,0168	0,0611	0,0279	0,0620	0,0303	0,1091																							
FO042	0,0002	0,0009	0,0210	0,0765	0,0349	0,0775	0,0380	0,1365																							
FO043	0,0001	0,0003	0,0081	0,0296	0,0135	0,0300	0,0147	0,0528																							
FO044																															
FO048																															
FO080																												115,71			
HU015	0,0026	0,0003	0,1407	0,1194	0,0889	0,2234	0,1120	0,6020		0,0318	0,1899																				

OSPAR-codes	in tonnes													in kilogrammes															
	Deposit site	Cd	Hg	As	Cr	Cu	Pb	Ni	Zn	Oil	ΣPAH9	Total PAH	N	P	CB 28	CB 52	CB 101	CB 118	CB 138	CB 153	CB 180	ΣPCB7	Total CB	HCB	g-HCH	DDT	TBT	DBT	other/ notes
HU041		0,0040	0,0015	0,0618	0,2773	0,3720	0,2672	0,1279	0,9129		0,0266	0,0808			0,005	0,01	0,006	0,004	0,009		0,01	0,009	0,048	0,099			0,063	0,484	0,073
HU060		1,3271	0,4839	61,9171	157,1192	72,2329	175,3277	82,1435	409,3061		1,7631	7,5852															42,329	16,469	
HU080		0,0097	0,0031	0,4018	1,1221	0,4736	1,1795	0,5655	2,7642																		0,302	0,122	
HU090		0,1250	0,0394	5,1711	14,4422	6,0962	15,1806	7,2785	35,5775																		3,891	1,572	
HU123																													
HU143		0,0053	0,0032	0,6153	1,0662	0,4120	1,1174	0,7005	2,7989		0,0000	0,0000			0	0,00	0	0	0	0	0	0	0	0			0,252	0,166	
HU150		0,0015	0,0015	0,3725	0,3931	0,3474	0,5675	0,2663	1,4830																		0	0	
HU151		0,0006	0,0004	0,1915	0,2780	0,1364	0,3365	0,1985	0,7455		0,0130	0,0538															0	0	
HU152		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000		0,0000	0,0000															0	0	
HU153		0,0000	0,0000	0,0099	0,0143	0,0070	0,0174	0,0102	0,0385		0,0007	0,0028															0	0	
HU154		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000		0,0000	0,0000															0	0	
HU170		0,0070	0,0022	0,3100	0,5737	0,4088	0,8092	0,5082	3,1975		0,0495	0,2087			0,02	0,01	0,017	0,014	0,019	0,022	0,013	0,118	0,211				0,341	0,081	
HU199		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000																		0	0	
HU203																												0	0
IS035		0,0020	0,0003	0,0477	0,1029	0,0715	0,1115	0,0707	0,6046		0,0039	0,0097															0,023	0,015	
IS040		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000																		0	0	
IS065		0,0025	0,0004	0,0587	0,1267	0,0880	0,1372	0,0871	0,7443		0,0048	0,0119															0,028	0,019	
IS099		0,0008	0,0001	0,0328	0,0425	0,0208	0,2668	0,0399	0,4802																		0	0	
IS102		0,0080	0,0085	4,7622	5,7153	0,8998	3,3862	2,9638	19,6127																		1,581	0,832	
IS110		0,0758	0,1152	2,2069	5,7073	4,3534	8,0203	2,6387	31,5949		0,4009	0,8763			0,311	0,20	0,19	0,22	0,23	0,247	0,129	1,534	3,139				1,931	1,524	
IS120		0,0447	0,1108	2,1318	6,2411	4,8914	9,0108	2,9389	27,3980		0,3408	0,7840			0,405	0,29	0,267	0,288	0,292	0,313	0,198	1,991	4,389			1,65	5,418	1,627	
IS128		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000		0,0000	0,0000			0	0,00	0	0	0	0	0	0	0	0		0	0	0	0
IS140		0,3166	0,8012	13,6262	39,1769	31,4046	58,0628	17,1315	180,5989		2,5903	5,7245			2,998	2,21	2,01	2,186	2,262	2,492	1,651	15,709	34,543			11,068	12,798	7,756	
IS150		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000		0,0000	0,0000			0	0,00	0	0	0	0	0	0	0	0			0	0	0
IS170		0,0109	0,0398	2,7042	3,8934	1,4057	4,1771	2,7985	14,2139																		1,311	1,425	
IS192		0,0003	0,0004	0,0149	0,0649	0,0480	0,0788	0,0438	0,2291		0,0024	0,0058			0	0,00	0	0	0,001	0,001	0	0,003	0,005				0,035	0,004	
IS200		0,0205	0,0396	4,5343	3,8861	1,4958	6,7534	2,6125	11,8793																		0	0	0
IS205		0,1324	0,2083	5,3363	12,7542	26,1287	25,0191	11,5875	87,5284		1,2472	2,7391			0,256	0,51	1,44	1,457	1,975	1,651	0,66	7,947	15,747				11,329	11,272	
IS231		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000		0,0000	0,0000															0	0	0
IS240		0,0009	0,0003	0,0596	0,1174	0,0918	0,1461	0,0900	0,4848																		0,028	0,015	
IS241		0,0214	0,0067	1,4668	2,8885	2,2587	3,5920	2,2144	11,9234																		0,689	0,379	
IS245		0,0018	0,0008	0,1015	0,2597	0,1333	0,2915	0,1630	0,8252																		0,034	0,024	
IS400		0,0006	0,0005	0,0233	0,0485	0,1548	0,2208	0,0302	0,3936																				
IS420		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000																				
IS591		0,0244	0,0064	0,2313	1,7785	1,2398	1,5161	1,0913	5,3467																				
IS620		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000																				
IS650		0,0061	0,0012	0,1957	1,5661	0,9311	0,6635	0,7081	2,8700																				
IS671		0,0017	0,0345	0,1199	0,9009	0,4961	1,0714	0,6270	2,3926																				
LU010		0,0002	0,0000	0,0482	0,0307	0,0507	0,0450	0,0283	0,1295																		0,059	0,006	
LU055		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000		0,0000	0,0000			0	0,00	0	0	0	0	0	0	0	0			0	0	0
LU070		0,0212	0,0222	0,9762	2,9627	1,7190	4,1732	2,3598	13,1915		0,3336	0,6524			0,363	0,15	0,154	0,173	0,292	0,26	0,228	2,847	2,473				0,423	0,251	
LU080		0,0226	0,0235	1,0373	3,1610	1,8222	4,4093	2,4976	14,0185		0,3573	0,6948			0,385	0,16	0,162	0,183	0,309	0,275	0,242	2,971	2,664				0,433	0,257	
LU083		0,0021	0,0026	0,1019	0,2819	0,1889	0,4892	0,2676	1,3749		0,0288	0,0649			0,042	0,02	0,018	0,02	0,032	0,028	0,024	0,412	0,182				0,079	0,047	
LU084		0,0124	0,0110	0,5441	1,7970	0,9084	2,0431	1,2032	7,3675		0,2177	0,3811			0,181	0,07	0,075	0,086	0,154	0,142	0,125	0,978	1,781				0,049	0,029	
LU085		0,0037	0,0038	0,1697	0,5194	0,2972	0,7166	0,4067	2,2932		0,0590	0,1139			0,063	0,03	0,026	0,03	0,05	0,046	0,04	0,476	0,443				0,068	0,04	
LU086		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000		0,0000	0,0000			0	0,00	0	0	0	0	0	0	0	0			0	0	0
LU087		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000		0,0000	0,0000			0	0,00	0	0	0	0	0	0	0	0			0	0	0
LU110		0,1146	0,1476	7,3022	21,2525	12,8337	28,5351	16,9042	109,3091		1,6000	3,3155			2,187	0,89	0,844	1,012	1,581	1,411	1,21	9,131	21,556				2,518	0,794	
LU115		0,0013	0,0016	0,0883	0,2550	0,1496	0,4560	0,2207	1,1545		0,0187	0,0424			0,032	0,01	0,013	0,015	0,025	0,021	0,018	0,137	0,326				0	0	0
LU125		0,0001	0,0001	0,0107	0,0247	0,0159	0,0311	0,0176	0,1046		0,0016	0,0036															0,014	0	
LU130		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000		0,0000	0,0000															0	0	0
LU130		0,2968	0,2156	18,0884	35,4937	23,7779	43,2728	32,5443	184,7618		3,7475	7,2924			2,523	0,95	1,048	1,292	1,817	1,669	1,376	10,67	25,49				0,207	0,138	
LU140		0,0214	0,0153	0,9024	3,2427	1,8202	5,7664	2,5238	15,4180		0,2503	0,5400															0	0	0
LU169		0,0139	0,0135	1,0572	2,3876	1,4878	3,1363	2,1928	9,2105		0,1303	0,2653			0,173	0,06	0,084	0,105	0,078	0,137	0,105	0,802	1,786				1,138	0,807	
LU169		0,0076	0,0080	0,9735	1,7039	0,2762	2,0023	1,6127																					

OSPAR-codes	in tonnes													in kilogrammes																other/ notes
	Deposit site	Cd	Hg	As	Cr	Cu	Pb	Ni	Zn	Oil	ΣPAH9	Total PAH	N	P	CB 28	CB 52	CB 101	CB 118	CB 138	CB 153	CB 180	ΣPCB7	Total CB	HCB	g- HCH	DDT	TBT	DBT		
PO501																														
TH005		0.0076	0.0067	0.9362	1.8148	2.5428	1.8217	1.2255	5.4679		0.0934	0.3248															2.693	0.99		
TH034		0.0005	0.0006	0.0434	0.1254	0.1220	0.0883	0.0740	0.2972		0.0036	0.0125			0.001	0.00	0.003	0.003	0.004	0.003	0.002	0.017	0.034				0.428	0.103		
TH034		0.0567	0.0179	2.0634	5.1533	8.8439	6.2145	3.5876	16.5656		1.2989	2.4476															21.735	2.673		
TH052		0.1346	0.5212	22.9437	32.1811	20.6725	43.4712	34.1672	109.4120		0.1641	0.6414															12.41	8.992		
TH056		0.0446	0.0461	6.2879	19.8227	9.5969	12.5034	14.8091	0.0468		0.1495	0.5496			0.104	0.10	0.104	0.11	0.11	0.104	0.104	0.148	0.155				46.779	4.226		
TH062		0.0006	0.0003	0.0277	0.0752	0.0873	0.0884	0.0640	0.2819																		0.101	0.026		
TH070		0.0000	0.0030	0.5360	1.1590	0.3700	0.8609	0.5803	2.0965																		0.394	0.224		
TH140		0.0074	0.0083	0.9217	1.7513	1.4748	1.5669	0.9217	4.5165																		2.765	0.184		
TH211		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000															0	0		
TH216		0.0016	0.0025	0.4616	0.9798	0.5682	0.7996	0.6919	2.0259		0.0100	0.0390															0.081	0.045		
TH217		0.0009	0.0014	0.2526	0.5352	0.3118	0.4373	0.3789	1.1072		0.0053	0.0208															0.043	0.024		
TH218		0.0006	0.0008	0.1509	0.3187	0.1874	0.2611	0.2267	0.6599		0.0030	0.0118															0.024	0.013		
TH219		0.0006	0.0008	0.1505	0.3176	0.1869	0.2603	0.2261	0.6579		0.0030	0.0117															0.024	0.013		
TY022		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000																		0	0		
TY025		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000															0	0		
TY042		0.0188	0.0141	1.6139	2.1153	2.4444	4.8574	2.0213	8.6180		0.9796	5.6742			0.11	0.06	0.094	0.063	0.125	0.125	0.063	0.564	1.316				1.567	0.47		
TY070		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000			0	0.00	0	0	0	0	0	0	0	0				0	0	
TY070		0.0248	0.0135	1.0892	1.8486	2.0487	7.9753	1.4769	15.4977																			4.317	0.802	
TY081		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000			0	0.00	0	0	0	0	0	0	0	0				0	0	
TY081		0.0299	0.0163	1.3153	2.2322	2.4739	9.6307	1.7834	18.7144		0.0000	0.0000			0	0.00	0	0	0	0	0	0	0	0				5.212	0.968	
TY085		0.0128	0.0100	2.5687	3.1395	2.2832	9.5611	2.1405	8.1340		0.5654	4.4895			0	0.00	0	0	0	0	0	0	0	0				0.02	0.02	
TY090		0.0076	0.0061	0.3613	0.5780	0.5058	2.3843	0.4335	2.9262		0.1223	0.6504																1.264	0.253	
TY130		0.0071	0.0041	0.3459	0.5975	0.8334	1.8083	0.4717	2.8776		0.1801	1.3856			0.053	0.04	0.036	0.033	0.033	0.03	0.015	0.239	0.552				29.79	0.94		
TY150		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000			0	0.00	0	0	0	0	0	0	0	0				0	0	
TY150		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000			0	0.00	0	0	0	0	0	0	0	0			0	0	0	
TY160		0.0249	0.0358	1.7731	3.8025	4.2692	8.2369	2.0633	14.1990		0.7460	3.5003			0	0.00	0	0	0	0	0	0	0	0				0.855	0.57	
TY160		0.6895	0.1935	16.0426	57.0176	44.3830	173.9122	28.1310	203.9166		5.2281	15.1549			0.46	0.41	0.414	0.348	0.471	0.661	0.673	3.476	8.635			2.3	60.067	27.186		
TY180		0.0015	0.0008	0.2355	0.3552	0.1872	0.4826	0.2683	0.9652																			0.097	0.039	
TY181		0.0019	0.0000	0.1687	0.1590	0.0389	0.2142	0.1103	1.1357																			0	0.114	
TY190		0.0005	0.0006	0.0810	0.1169	0.0912	0.2169	0.0863	0.3897		0.0285	0.1486																0.497	0.059	
WI010		0.0027	0.0069	1.6237	2.7803	2.6778	3.0546	2.2612	9.9363		0.3113	0.5447					0.105	0.093	0.105	0.102	0.043	0.603	1.121				8.204	2.207		
WI020		0.0019	0.0005	0.1601	0.3575	0.1452	0.1919	0.1662	0.6599																			0.174	0.1	
WI031		0.0036	0.0009	0.4323	0.5855	0.2438	0.3133	0.3073	1.1131		0.0145	0.0246																0.132	0.097	
WI045		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						0	0.00	0	0	0	0	0	0	0	0				0	0	
WI046		0.0004	0.0003	0.0476	0.0812	0.0918	0.0657	0.0476	0.2206						0	0.00	0	0.001	0.001	0.001	0	0.002	0.003					0.02	0.01	
WI060		0.1354	0.0704	0.4055	0.9596	0.9101	1.3711	0.7385	2.6763		0.0614	0.1162			0.006	0.01	0.006	0.005	0.007	0.007	0.003	0.041	0.071				4.622	0.761		
WI060		0.0399	0.0459	5.1076	7.1187	9.2092	7.9929	4.9921	26.3507		0.2327	0.4194			0.438	0.23	0.463	0.274	0.89	0.921	0.644	8.121	3.862				29.916	5.353		
WI060		0.0001	0.0000	0.0131	0.0086	0.0035	0.0064	0.0069	0.0195																			0.019	0.002	
WI071		0.0000	0.0000	0.0079	0.0078	0.0009	0.0035	0.0039	0.0116																			0.005	0.002	
WI080		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000			0	0.00	0	0	0	0	0	0	0	0				0	0	
WI080		0.0039	0.0029	0.4914	0.9938	0.8021	0.7213	0.6061	2.1337		0.0092	0.0195			0	0.00	0	0	0	0	0	0	0	0				0.248	0.109	
WI090		0.0000	0.0000	0.0015	0.0031	0.0083	0.0078	0.0022	0.0245																			0.015	0.01	
WI110		0.0016	0.0018	0.0452	0.0711	0.0832	0.1734	0.0492	0.2886		0.0078	0.0271			0	0.00	0.003	0.003	0.003	0.003	0.001	0.009	0.005				0.205	0.053		
WI110		0.0059	0.0032	0.2390	0.3793	0.4649	0.4572	0.2075	1.4821		0.0142	0.0393			0.001	0.00	0.006	0.008	0.007	0.007	0.006	0.054	0.042				0.856	0.182		
WI111		0.0015	0.0008	0.0767	0.1292	0.1793	0.1435	0.0803	0.5488		0.0160	0.0298			0	0.00	0	0	0	0	0	0	0	0				0.206	0.055	
IS015																														
Total		5.22	3.89	230.41	645.73	417.62	823.61	344.63	1 988.63	0.00	28.16	80.68			11.20	7.59	9.05	9.07	11.57	11.66	7.711									

Part II - Information

1. General information

The continental decimal system is used throughout this report. Empty cells indicate that no information was available. Italic numbers are used when the measured/calculated value was smaller than the actual number given in the cell.

2. Additional information

(Referring to section 4 of the Format for Annual Reporting on Dumping Operations at Sea (Agreement 2009-3))

2.1 Deposit site

2.1.1 Germany

The following two new deposit sites are notified for the first time by the German Federal Water and Shipping Directorate:

new OSPAR code	deposit sites
D/127	Harbour Wyk, Island of Foehr
D/128	Harbour List, Island of Sylt

Co-ordinates of all newly reported deposit sites are summarized in the following table:

Deposit site	Co-ordinates							
	long	lat	long	lat	long	lat	long	lat
D/127	54°41,67'	08°34,55'						
D/128	55°01,00'	08°26,40'						

2.1.2 Iceland

Deposit sites for dumping of dredged material at sea which were used in 2009 but not in 2010:
IS 45, IS 56

Deposit sites for dumping of dredged material at sea not used in 2009, but used in 2010:
IS 52, IS 53, IS 60 (Landeyjahofn; new deposit site/new code)

2.1.3 Ireland

Dumpsite IR/56 was new in 2010. Sediment was deposited in the intertidal zone as beach nourishment.

2.1.4 Netherlands

NL-16 is a relatively new dumpsite called Slijkgat. It was also used in 2009.

2.1.5 Norway

New Deposit Sites:

Name	ID	UTM33_N	UTM33_E
Fløyholmsundet	VA7	6457836	44330
Vigebukta	VA8	6468056	91161
Kolsdalsbukta	VA9	6465754	86967
Engøy south	VA10	6468201	17788
Grøningen southeast	HO6	6705822	-40965
Rolvsvågen	HO7	6724243	-15751
Strindfjorden	ST4	7047675	278837
Utvorda	NT6	7169522	306035
Sitter	NT7	7162815	306611
Ørsteinen	TR10	7634578	586206
Topsundet	TR11	7639876	558150
Gisundet	TR12	7700146	621106
Storbukt, Honningsvåg harbour	FI3	7912700	896658
Ulvesundet	SF7	6907147	-16051

2.1.6 Spain

The table below includes the OSPAR codes for new sites with their geographical coordinates and updates the information of sites reported in 2009.

Name	Code	Longitude	Latitude
Zumaia	E/1	1° 53' W	43° 23' N
Orio	E/2C	2° 20' W	43° 24' N
Bilbao	E/2	3° 09' W	43° 25' 10" N
Ondarroa	E/2C	2° 20' W	43° 24' N
Santander	E/3	3° 36,9' W	43° 34,4' N
Colindres	E/3B	3° 24,1' W	43° 27,7' N
Santoña	E/3B	3° 24,1' W	43° 27,7' N
Suances	E/3C	4° 1,78' W	43° 26,8' N
San Vicente de la Barquera	E/3D	4° 22,6' W	43° 23,7' N
Gijón	E/4	5° 39' 3" W	43° 37' 5" N
Llanes	E/4B	4° 44,38' W	43° 25,23' N
Tazonas	E/4F	5° 23' 40" W	43° 32' 85" N
Candás	E/4C	5° 44 '18" W	43° 35 '18" N
Ribadesella	E/4E	5° 3' 30,6" W	43° 29' 7,2" N
Avilés	E/5	5° 56,8' W	43° 36,8' N
San Juan de la Arena	E/5B	6° 3,7' W	43° 36' N
San Esteban de Pravia	E/5B	6° 3,7' W	43° 36' N
Navia	E/5C	6° 42,5' W	43° 34,3' N
Puerto de Vega	E/5E	6° 38' W	43° 34,5' N
Figueras	E/5F	7° 2' W	43° 35' N
A Coruña	E/7	8° 23' 30" W	43° 25' N
Miño	E/7C	8° 25' 00" W	43° 25,6' N
Sada	E/7C	8° 25' 00" W	43° 25,6' N
Vilagarcía	E/8	9° 02' W	42° 25' N
Marín-Pontevedra	E/9B	9° 2,5' W	42° 24,5' N
Huelva	E/10	6° 53' 8" W	36° 58' 8" N
Punta Umbría	E/10	6° 53' 8" W	36° 58' 8" N
Puerto de Santa María	E/12	6° 24' 30" W	36° 30' 30" N
Sancti-Petri	E/12	6° 24' 30" W	36° 30' 30" N

2.1.7 Sweden

In 2010 no new dumping sites were used within the OSPAR area.

Locations of Swedish dumping sites in the OSPAR Area, 2010

All coordinates (except, possibly, for a few that have been difficult to check) are in WGS84

Dumping sites marked "uncoded" were reported before 2000 without codes

Included in the reporting for 2010

Code	Dumping place	Latitude N degrees minutes	Latitude N degrees	Longitude E degrees minutes	Latitude E degrees	Depth (m)
SWE/1	Stora Björkholmen	58 55,8	58,930	11 09,8	11,163	
SWE/2	Stora Borgen	58 37,241	58,62068	11 11,606	11,19343	54
uncoded01	Ösöfjorden	58 27,2081	58,45347	11 16,0372	11,26728	
SWE/3	Bohus Malmön	58 21,0744	58,35124	11 21,1308	11,35218	
uncoded02	Byfjorden	58 20,1418	58,33570	11 52,4204	11,87367	
SWE/4	Norra hamnen, Lysekil	58 16,696	58,27827	11 25,273	11,42122	
uncoded03	Bårholmen	58 15,0925	58,25154	11 39,9500	11,66583	
SWE/5	Koljöfjorden	58 13,828	58,23047	11 34,670	11,57783	
SWE/27		58 13,122	58,21870	11 53,262	11,88770	
SWE/28		58 10,901	58,18168	11 25,665	11,42775	
uncoded04	Almön / Källön	58 03,4170	58,05695	11 46,7222	11,7787	
SWE/6	Räbbehuvud	58 02,0504	58,03417	11 29,1958	11,48660	
SWE/7	Holmen Grå	57 56,177	57,93628	11 32,731	11,54552	
SWE/8	Guleskären	57 50,013	57,83355	11 37,469	11,62448	
SWE/19	Öckerö	57 42,384	57,70640	11 40,486	11,67477	
SWE/9	Stora Kalvsund	57 42,0602	57,70100	11 40,4337	11,67390	
SWE/10	Hakefjorden	57 40,03	57,6672	11 45,21	11,7535	5-10
SWE/11	Vinga	57 36,64	57,6107	11 34,88	11,5813	45
SWE/26		57 32,293	57,53822	11 54,886	11,91477	4
SWE/23		57 27,50	57,45833	11 53,50	11,89167	18
SWE/21		57 19,29	57,3215	12 02,05	12,03417	
SWE/17		57 15,90	57,2650	12 03,97	12,0662	
SWE/12		57 04,747	57,07912	12 09,232	12,15387	
SWE/13		56 51	56,850	12 20,5	12,342	22
SWE/22		56 42,5	56,708	12 25,0	12,417	>25
SWE/24		56 35,681	56,59468	12 47,080	12,78467	

SWE/15		56 34,8	56,580	12 47,0	12,783	
SWE/25		56 34	56,567	12 27	12,450	30
SWE/14		56 33,802	56,56337	12 27,089	12,45148	
SWE/20		56 28	56,467	12 50	12,833	14
SWE/18		56 15,20	56,253	12 41,80	12,697	

2.1.8 United Kingdom

New disposal sites for 2010 are:

<i>Disposal Site Code</i>	<i>Disposal Site</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Site Shape</i>
HU123	Sherringham Shoal drillings	53.19393	0.47707	Polygon
HU123	Sherringham Shoal drillings	53.19907	0.47731	Polygon
HU123	Sherringham Shoal drillings	53.24158	0.45939	Polygon
HU123	Sherringham Shoal drillings	53.24158	0.45939	Polygon
HU123	Sherringham Shoal drillings	53.24815	0.50298	Polygon
HU123	Sherringham Shoal drillings	53.20609	0.52066	Polygon
HU123	Sherringham Shoal drillings	53.20609	0.52066	Polygon
HU123	Sherringham Shoal drillings	53.20605	0.52068	Polygon
HU123	Sherringham Shoal drillings	53.15084	0.52068	Polygon
HU123	Sherringham Shoal drillings	53.15083	0.52067	Polygon
HU123	Sherringham Shoal drillings	53.12482	0.48957	Polygon
HU123	Sherringham Shoal drillings	53.1474	0.49091	Polygon
HU123	Sherringham Shoal drillings	53.14745	0.47504	Polygon
HU123	Sherringham Shoal drillings	53.14745	0.47502	Polygon
HU123	Sherringham Shoal drillings	53.14745	0.47486	Polygon
HU152	Wells Disposal A	52.96983	0.85216	Polygon
HU152	Wells Disposal A	52.9718	0.8522	Polygon
HU152	Wells Disposal A	52.97179	0.85254	Polygon
HU152	Wells Disposal A	52.9698	0.85259	Polygon
HU153	Wells disposal site B	52.96979	0.85315	Polygon
HU153	Wells disposal site B	52.97025	0.85314	Polygon
HU153	Wells disposal site B	52.97178	0.85315	Polygon
HU153	Wells disposal site B	52.97232	0.85461	Polygon
HU153	Wells disposal site B	52.97117	0.85546	Polygon
HU153	Wells disposal site B	52.97004	0.85562	Polygon
HU154	Wells disposal site C	52.97028	0.85257	Polygon
HU154	Wells disposal site C	52.97025	0.85314	Polygon
HU154	Wells disposal site C	52.96979	0.85315	Polygon
HU154	Wells disposal site C	52.9698	0.85259	Polygon
IS099	Broughton	53.18983	-2.96903	Polygon
IS099	Broughton	53.19023	-2.96862	Polygon
IS099	Broughton	53.18958	-2.96682	Polygon
IS099	Broughton	53.18918	-2.9672	Polygon
PO501	JE002 St.Aubins	49.186333	-2.166833	Circle

2.2 Method of determination

2.2.1 France

Definition of assumptions made in calculating quantities of dry matter in Table 3a

Relationship between the saturated density of the mixture ρ_{sat} and the concentration of dry matter

ρ_{ms} :

These two parameters are connected through the following relationship:

$$\rho_{ms} = \frac{\rho_{ss}}{(\rho_{ss} - \rho_o)} \times (\rho_{sat} - \rho_o) \text{ in which:}$$

- ρ_{sat} = density of the mixture (in kg/m³)
- ρ_{ms} = concentration of dry matter in the mixture (in kg dry matter/m³)
- ρ_o = density of water at 4°C (in kg/m³)
- ρ_{ss} = density of the dry sediment (in kg/m³).

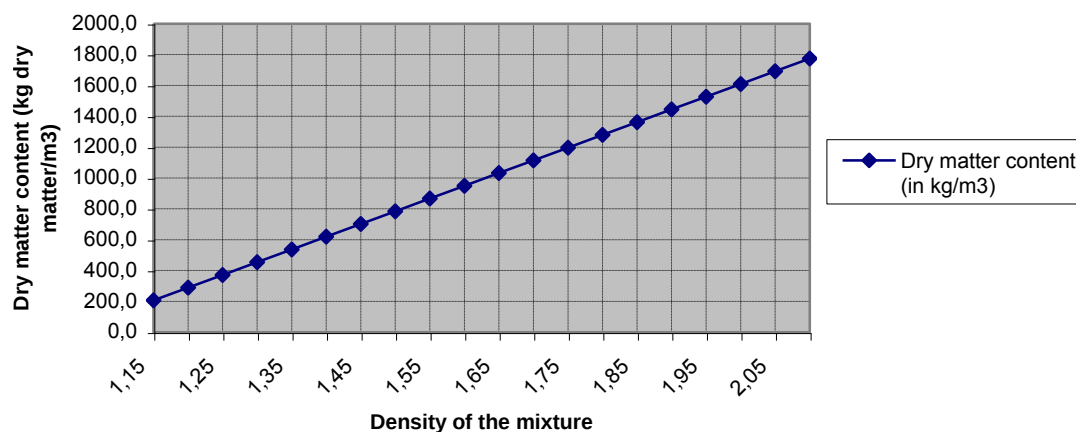
Assuming that $\rho_{ss} = 2\,600 \text{ kg/m}^3$ and $\rho_o = 1\,025 \text{ kg/m}^3$, the following simplified formula is obtained:

$$\rho_{ms} = 1\,650,8 \times (d - 1\,025)$$

where d is the density of the mixture.

This can be represented graphically as follows:

Estimation of dry matter content as a function of the density



Calculation of quantities of dry matter deposited

If the volume in situ to be dredged is known, an approximate calculation of the quantities of dry matter dredged can be carried out using the following assumptions according to the situation encountered:

Type of material	Mean density in situ	Density for calculation	Dry matter content (kg dry matter/m ³)
Fresh sludge	1,1 to 1,3	1,2	288,9

Consolidated sludge	1,3 to 1,6	1,45	701,6
Sand	1,6 to 2	1,8	1 279,4

In practice, data relating to the mean densities in situ of the sediments dredged in the principal French ports are known and listed by the Groupement d'Interêt Economique Dragages-Ports (Port-dredging Economic Interest Grouping).

If the volume in the hoppers is known, an approximate calculation of the quantities of dry matter dredged can be carried out using the following assumptions according to the situation encountered:

Type of dredging	Type of material	Mean density in the Hoppers	Density for calculation	Dry matter content (kg dry matter/m ³)
Trailer Suction dredge	Liquid sludge	1,2	1,2	288,9
	Consolidated sludge	1,25 to 1,35	1,3	454,0
	Sand	1,8	1,8	1 279,4
Mechanical dredge	Fresh sludge	1,15 to 1,25	1,2	288,9
	Consolidated sludge	1,3 to 1,4	1,35	536,5
	Sand	1,8	1,8	1 279,4

Hydrocarbons

Hydrocarbons (Table 3b) are analysed on 2mm fraction of marine sediments, by extraction with CC14 in Infra Red.

Total CB and Oil were not requested to laboratories in 2005.

2.2.2 Germany

For Germany where necessary, the quantities in Table 3a have been converted from cubic metres into tonnes dry weight. The following conversion factors (specific gravity) have been used:

in case of silt: 1,2
in case of sand: 1,8
in case of lacking information or composition of sand and silt: 1,5
in cases where no dry weight (DW) was indicated, the DW was estimated to be 50% (in order to calculate the annual load from the concentration given).

DDT:

From 2002 onwards, the figure given under DDT reflects the "pp-DDT-portion". Additional information for pp-DDD and pp-DDE are given in the column "other" in Table 3b.

Total PAH:

Like in the preceding years, the figure under total PAH reflects the sum of PAH₆.(benzo[ghi]perylene; benzo[a]pyrene; fluoranthene; indeno[1,2,3-cd]pyrene; benzo[b]fluoranthene; benzo[k]fluoranthene)

2.2.3 Ireland

- Only CB 28; CB 52; CB 101; CB 118; CB 138; CB 153; and CB 180 measured
- For PAH, usually US EPA 16 PAH measured.
- Other CB congeners and PAH compounds requested in the event of a known problem or source.

PCB and OC determination:

Sample plus surrogate standards are extracted with DCM/Acetone by ASE. The solvent extract is reduced in volume and cleaned up using High Resolution Size Exclusion Chromatography (SEC/GPC). The extract is further cleaned up on Florisil and Silica columns. The cleaned up extract is analysed by GCMS in SIM mode.

PAH determination:

The sediment sample is extracted with an Accelerated Solvent Extraction system using a Dichloromethane/Acetone (50/50) solvent mixture. The extract is cleaned up with Gel Permeation chromatography and Silica gel and analysed via GC/MS in SIM mode.

Extractable hydrocarbons:

Sediment is extracted with pentane, dried and analysed by fluorescence spectroscopy.

The limits of detection requested from laboratories are as follows. Occasionally, these cannot be met. Analysis are generally not sent elsewhere if known problems or sources do not exist in the dredged area.

Contaminant	Concentration	Units (dry weight)	Contaminant	Concentration	Units (dry weight)
Hg	0,05	mg kg ⁻¹	CB28	1,0	µg kg ⁻¹
As	1,0	mg kg ⁻¹	CB52	1,0	µg kg ⁻¹
Cd	0,1	mg kg ⁻¹	CB101	1,0	µg kg ⁻¹
Cu	5,0	mg kg ⁻¹	CB118	1,0	µg kg ⁻¹
Pb	5,0	mg kg ⁻¹	CB138+163	1,0	µg kg ⁻¹
Zn	10,0	mg kg ⁻¹	CB153	1,0	µg kg ⁻¹
Cr	5,0	mg kg ⁻¹	CB180	1,0	µg kg ⁻¹
Ni	15	mg kg ⁻¹	DDE pp	1,0	µg kg ⁻¹
TBT & DBT	0,01	mg kg ⁻¹	DDT pp	1,0	µg kg ⁻¹
PAHs	20	µg kg ⁻¹	DDD pp	1,0	µg kg ⁻¹
			Dieldrin	1,0	µg kg ⁻¹
			Lindane	1,0	µg kg ⁻¹
			HCB	1,0	µg kg ⁻¹

All sample batches are required to have CRM analysed alongside, and results submitted as part of the report.

2.2.4 Spain

The grain size fraction analysed, in all cases, it has been smaller than 0,063 mm. The methodology used for the analysis is the following:

Sample preparation

- Drying of the sample at 60°C during 24h.
- Sieving of the sample with a 2 mm sieve.
- Separation, when done, of the smaller than 0,063 mm fraction, using water and a 0,063 mm plastic sieve.
- Homogenisation and grinding of the sample in an agate mortar.
- Determination of the humidity by drying at 105°C up to constant weight

Poly-chlorinated-biphenyls

- Extraction of homogenised and grinded sample with a methylene chloride:hexane (1:1) mixture.
- Extract concentration and passing through an anhydrous sodium sulphate column.
- Sulphur elimination by purification with powder of copper.
- Extract purification in column, avoiding the organochlorated compounds with a mixture of ethylic ether in hexane at successive concentrations of 6, 15 and 50%, ending with pure hexane.
- Quantitative determination by gas chromatography with electron capture detector, using an HP-S capillary column of 0,22 mm inner diameter.

Polyaromatic hydrocarbons

- Extraction by means of decantation, mixture with acetone:hexane (1:1) and ultrasounds.
- Purification by means of decantation with salt saturated with sodium sulfate.
- Determination using gas chromatography with a 60 mm capillary column, BOD5 and flame ionization detector.
- Confirmation, when necessary, by means of mass chromatography.

2.2.5 United Kingdom

UK methods of determination are all as previously reported to EIHA/SEABED.

Total PCBs measured consists of the following congeners:

CB 18	CB 49	CB 110	CB 149	CB 170
CB 28	CB 52	CB 118	CB 151	CB 180
CB 31	CB 66	CB 128	CB 153	CB 183
CB 44	CB 101	CB 138	CB 156	CB 187
CB 47	CB 105	CB 141	CB 158	CB 194

Total PAHs measured consists of the following PAH compounds:

2, 3 Benzantracene	Benzo[ghi]perylene	Fluoranthene
Acenaphene	Benzo [k] fluoranthene	Fluorene
Acenaphthylene	C1-Naphthalenes	Indeno[123-cd]pyrene
Anthracene	C1- Phenanthrenes	Naphthalene
Benzo[a]anthracene	C2-Naphthalenes	Perylene
Benzo[a]pyrene	C3-Naphthalenes	Phenanthrene
Benzo [b] fluoranthene	Chrysene	Pyrene
Benzo[e]pyrene	Dibenzo[a,h]anthracene	

All analyses of dredged material on <2mm fraction. Methods of determination as specified in reports listed below:

- Allchin, C.A., Kelly, C.A. and Portmann, J.P., 1989. Methods of analysis for chlorinated hydrocarbons in marine and other samples. Aquatic Environmental Protection: Analytical Methods, MAFF Directorate of Fisheries Research, Lowestoft, (6), pp.25.
- Jones, B.R. and Laslett, R.E., 1994. Methods for analysis of trace metals in marine and other samples. Aquatic Environmental Protection: Analytical Methods, MAFF Directorate of Fisheries Research, Lowestoft, (11), pp. 29.
- Kelly, C.A., Law, R.J., and Emerson, H.S., 2000. Methods of analysing hydrocarbons and polycyclic aromatic hydrocarbons (PAH) in marine samples. Science Series, Aquatic Environmental Protection: Analytical Methods, CEFAS Lowestoft. (12), pp. 18.
- Law, R.J., Fileman, T.W. and Portmann, J.P., 1988. Methods of analysis of hydrocarbons in marine and other samples. Aquatic Environmental Protection: Analytical Methods, MAFF Directorate of Fisheries Research, Lowestoft, (2), pp. 25.
- Waldock, M.J., Waite, M.E., Miller, D., Smith, D.J. and Law, R.J., 1989. The determination of total tin and organotin compounds in environmental samples. Aquatic Environmental Protection: Analytical Methods, MAFF Directorate of Fisheries Research, Lowestoft, (4), pp. 25.

2.3 Toxicity

Spain: In the case of Avilés Harbour (E/5), additionally to the chemical characterisation, two different bioassays using *Chlorella vulgaris* and Microtox (*Vibrio fischeri*), were conducted. The results indicated a negative toxicity.

2.4 Quality assurance of analyses of dumped material

a. Do the laboratories carrying out the analyses undertake: <i>Contracting Parties responding "Yes" to this question are indicated under the respective columns with their country abbreviation.</i>		All	None	Some
(i)	the analysis of blank samples and laboratory reference materials with each batch of samples of waste and other material dumped in the maritime area that is analysed by that laboratory;	Irl, Is, F, UK		Se
(ii)	periodic comparative analysis of laboratory reference materials and certified reference materials;	Irl, F, Se, UK		Is*
(iii)	the compilation of quality control charts based upon the data resulting from the analyses of the laboratory reference materials and certified reference materials, and the use of those quality control charts to monitor analytical performance in relation to all samples of dumped wastes or other materials;	Irl*, Is, F, Se, UK		Is**
(iv)	periodic participation in interlaboratory comparison exercises, including, where possible, international comparison exercises;	Irl, Is, F (at least yearly), Se, UK		

a. Do the laboratories carrying out the analyses undertake: <i>Contracting Parties responding "Yes" to this question are indicated under the respective columns with their country abbreviation.</i>	All	None	Some
(v) periodic participation in national and, where possible, international laboratory proficiency schemes, under which: - participating laboratories are asked to analyse samples of substances which are provided by the organisers of the scheme; - the composition of those samples is not disclosed in advance; - the results of the scheme for each participating laboratory are made available to all participating laboratories.	Irl, F (only in national comparison exercises), Se, UK		IS***

x Ireland: compiled and maintained by analysing laboratory.

* Iceland: in some cases SRM's have been used by laboratories

** Iceland: quality control charges not used as quality criteria in the use of all instruments.

*** Iceland: information not available for all laboratories

- b. If reporting "Some" in the table above, please indicate which parts of the data set are not subject to the full range of QA procedures.

In Germany, several laboratories, often commercial laboratories, are involved in analyses of dredged material. Most of these laboratories are accredited and apply the QA procedures (i) to (v).

- c. Describe any practical action taken to apply the QA procedures described above (e.g. participation in interlaboratory comparison exercises and international QA/QC schemes).

Iceland: Analytical results obtained in international accredited laboratory, i.e. which has internal audit and is working according to ISO 17025.

Ireland: 5 out of 6 analyses were carried out by UK Environment Agency National Laboratory Service, which takes part in the QUASIMEME Laboratory Proficiency Scheme for sediment analysis. 1 out of 6 analysis carried out by TES Bretby, UK. Sediments testing accredited by UKAS to ISO17025 and lab participates in MCERTS standards.

- d. Are any special difficulties encountered in applying Quality Assurance procedures?

Ireland: Sometimes LoDs specified cannot be achieved. This provides a difficulty in calculating quantities for Table 3b.

In cases where results are <LoD, the following procedures were applied to get the best "guesstimate"

- LoD was excluded from calculations for average concentrations, if there were other values in the sample set.*
- Half of LoD was used to calculate quantities of contaminants.*
- If LoD is considered very high, 95%ile value for background sediment is applied, for samples in remote areas.*

- *If LoD is appropriately low, then no amount is reported for samples in remote areas.*

2.5 Other relevant information

3. Footnotes to all tables

3.1 Table 1

3.1.1 Belgium

- (1) The amounts licensed are the maximum amounts per year. The permits issued are valid for 2 years, 01.01.2010 – 31.12.2011. It should also be noted that these permits only consider dredged material dumped at sea. No permits were issued for internal waters.

3.1.2 Germany

- (1) Permits for dredging/disposing of dredged material are issued by the competent authorities of the Federal States. Permits are not issued for dredging/disposing activities of the German Federal Water and Shipping Directorate (the Directorate does not issue permits for its own activities). However, the dredging/disposing activities of the Directorate are governed by national regulations which are in accordance with OSPAR and LC requirements. Five deposit sites are notified for the first time.

3.1.3 Iceland

- (1) According to Iceland law, dumping of vessels and aircrafts is not permitted.

3.1.4 Ireland

- (1) Three new permits were issued in 2010.
- (3) Several existing multi-annual permits still active from previous years although no dredging or dumping took place on most.
- (4) Two permits applied to plough dredging.
- (5) The amount licensed was substantially more than the amount dumped. This is partly because most applications contained substantial amounts for contingency.
- (6) Total amount licensed is calculated in wet weight. Average moisture content was used to recalculate as dry wet.

3.1.5 Netherlands

- (1) Since early 2009 a new system of regulating the disposal of dredged material is in effect in the Netherlands. The planned disposal needs to be announced and agreed upon within 5 working days after the announcement. This so called 'bbk-announcement' should at least give insight in the sediment quality and expected amounts. This information is identical to the application of a permit but a formal permit is no longer required.
- (2) Announcements mentioned under 1) are based on the estimated amounts to be dredged in cubic metres (not metric tonnes) therefore total amounts are estimated.

- (3) Permits (and announcements mentioned under 1) issued for dumping of dredged materials in national waters are numerous and are not taken into account in the overview of total amounts licensed in tables 1 and 2 but are specified in table 3.

3.1.6 Spain

- (1) In 2010 the following new permits were issued:
- Zumaia (E/1) (1 permit)
 - Orio (E/2C) (1 permit)
 - Ondarroa (E/2C) (2 permits)
 - Llanes (E/4B) (1 permit)
 - Tazones (E/4F) (1 permit)
 - Avilés (E/5) (1 permit)
 - Miño (E/7C) (1 permit)
 - Sada (E/7C) (1 permit)
 - Puerto de Santa María (E/12) (1 permit)
 - Sancti-Petri (E/12) (1 permit)
- (2) In the following cases the disposal operations were licensed in previous years:
- Santander (E/3): 2 permits issued in 2009 and extended in 2010.
 - A joint permit was issued for the following harbours: Santoña (E/3B), Colindres (E/3B), Suances (E/3C) y San Vicente de la Barquera (E/3D), in 2006 for the period 2006-2009, and extended in 2010.
 - Candás (E/4C): 1 permit issued in 2006 for the period 2006-2010.
 - Ribadesella (E/4E): 1 permit issued in 2008 for the period 2008-2012.
 - San Esteban de Pravia y San Juan de la Arena (E/5B): 1 permit issued in 2007 for the period 2008-2012.
 - Navia (E/5C): 1 permit issued in 2007 for the period 2008-2012.
 - Vega (E/5E): 1 permit issued in 2009 for the period 2009-2013.
 - Figueras (E/5F): 1 permit issued in 2008 for the period 2008-2012.
 - A Coruña (E/7): 1 permit issued in 2008.
 - Vilagarcía (E/8): 1 permit issued in 2009.
 - Marín (E/9B): 1 permit issued in 2009.
 - Huelva (E/10): 1 permit issued in 2009.
 - Punta Umbría (E/10): 1 permit issued in 2009.

3.1.7 Sweden

- (1) 13 new Swedish licenses were issued in 2010 for the OSPAR Area. 3 of these licenses (approximately 1 978 500 tonnes) are also reported to HELCOM. For Skagerrak alone 10 licenses (approximately 9 880 tonnes) were issued.

3.1.8 United Kingdom

- (1) UK licensed tonnages are usually on a wet weight basis. These are the estimated dry weight equivalents.

- (2) A significant number of UK dredged material licenses are now issued for 3 years, including some with very large tonnages.
- (3) 6 000 tonnes dry weight of fish waste was licensed for deposit in the sea in 2009 under a 3 year licence issued in February 2009 to run from 5 February 2009 to 4 February 2012 *i.e.* 2 000 tonnes per annum. The material was licensed for deposit directly onto the intertidal zone but is not dumping under the terms of the Convention. 1 708 tonnes of fish waste was deposited under this licence during 2010.

3.2 Table 2

3.2.1 France

- (1) Favourable conclusions at the end of the Environmental Impact Assessment.
- (2) Site F/05904: tonnes mentioned come from 3 particular dredging sites. On that same site, others dumping operations occurred without exceeding the level 2.

3.2.2 Germany

- (1) The maintenance of the Hamburg Seaport requires continuous dredging of the access channels to the harbour basins. According to the concept of management of dredged material established by the authority for economic and environmental affairs of the City of Hamburg, disposal of dredged material not exceeding given quality criteria can be carried out in the Elbe downstream of Hamburg only during winter time. About 1 Mio m³/a of highly contaminated dredged material is deposited on land, partially after mechanical treatment of the material. In summer 2005, there was an increasing need for dredging in order to keep accesses to the harbour basins open. However, disposal in the river Elbe in summer was not permitted, since it could severely affect the water quality (e.g. oxygen depletion). Moreover, it is suspected that large amounts of dredged material disposed of downstream of Hamburg is transported back to the harbour area. In order to reduce the need for dredging, the Hamburg Port Authority intended to remove part of the material from the sediment cycle and deposit it on land. However, it was not possible to increase the capacity of the sediment treatment plant.

Thus, in summer 2005, the Federal State Schleswig-Holstein permitted disposing of 0,8 Mio m³ of dredged material in 2005 and a further 3,7 Mio m³ in the period 2006 to 2008 at a sediment disposal site in the Southern German Bight, provided the permit conditions of Schleswig-Holstein were met. A long term sediment management concept is being developed. Disposal of dredged material is accompanied by a comprehensive monitoring programme.

The average concentrations of contaminants exceeding action level 2 and the related amount of dredged material are shown in Table 2 in column (3) + (4).

- (2) Part of the dredged material from the inner Elbe estuary beyond the OSPAR-Convention area was disposed of in the OSPAR area, since the capacity of deposits near the dredging sites was depleted. Furthermore, it is supposed that there is a return transport of dredged material from close-by deposits due to hydromorphological conditions. Disposal of part of the material at more seaward sites should reduce the increased sediment amounts to be dredged. A new concept for the management of dredged material is under development.

The average concentrations of contaminants exceeding action level 2 and the related amount of dredged material are shown in Table 2 in column (3) + (4).

- (3) Although pp-DDE and pp-DDD concentrations exceed action level 2 slightly, disposal in the Elbe estuary was allowed, as no contaminants are added to the estuary. Sediments are dredged and relocated within short distance. A considerable amount of dredged material

disposed of is returned by the currents, and therefore the same material has to be dredged and disposed of repeatedly. The concentrations of pp-DDE and pp-DDD in the dredged material and in suspended particulate matter of the Elbe are very similar. They originate from the upper reaches of the Elbe. There are no local sources of these contaminants in the dredging area.

The average concentrations of contaminants exceeding action level 2 and the related amount of dredged material are shown in Table 2 in column (3) + (4).

3.2.3 Iceland

- (1) Concentrations of contaminants in samples of dredged material did not exceed the regulatory limits (upper levels) for disposal at sea.

3.2.4 Ireland

- (1) Repeat and follow up sampling and analysis indicated 1 out of 20 samples with elevated Hg. Total quantity quite small, disposed of at well used dumpsite.
- (2) Originally, 1 out of 10 samples had concentration higher than upper action level. Overall concentration between lower and upper AL. Follow-up analysis indicated either hotspot or laboratory anomaly so dumping was permitted.

3.2.5 Sweden

No material dumped during 2010 was considered to have exceptionally high pollutant concentrations.

3.3 Table 3 a

3.3.1 Germany

- (1) Sand which is exempted from analyses according to paragraph 5.3 of the OSPAR Guidelines for the Management of Dredged Material is given as additional information.

3.3.2 Iceland

- (1) In recent years Table 3a in the Iceland report has contained information on all dredged material, irrespective of the method of disposal used, i.e. whether the dredged material is dumped at sea or disposed of to landfills. This year, a decision was made to include only information on dredged material dumped at sea in Table 3a, since the format provided by OSPAR is for the annual reporting on dumping operations at sea. Therefore, dredged material disposed to landfills is not included. However, the map showing deposit sites for dredged material in Iceland still provides information on all dredged material (see map legend).

3.3.3 Netherlands

- (1) In Scheveningen Harbour, Eastern Scheldt and Slijkgat no dredging was done in 2010, therefore no amounts are stated for the deposit site NL-6, NL-10 and NL-16.
- (2) The amounts for deposit sites NL-13, 14 and 15 were not available at the time of reporting.

3.3.4 Norway

- (1) All weights are wet weights.

3.3.5 Sweden

- (1) Two dredging sites: 100 m³ sand (supposed to weigh 150 tonnes dw) and 100 m³ (supposed to weigh 100 tonnes dw), both permits issued in 2009. Previously used dumping site.

- (2) Three dredging sites: 150 m³ (assumed to weigh 90 tonnes dw), 500 m³ (assumed to weigh 375 tonnes dw) and 1500 m³ (assumed to weigh 1950 tonnes dw). All three Permits issued in 2010. Previously used dumping site.
- (3) Three dredging sites: 150 m³ (assumed to weigh 112 tonnes dw and carried out in 2009 but not reported before), 1 800 m³ (assumed to weigh 900 tonnes dw) and 500 m³ (assumed to weigh 300 tonnes). The last dredging/dumping was not confirmed, but assumed to have taken place in 2010. Permits issued in 2009 and 2010.
- (4) The amount in tonnes dry weight and amounts of pollutants were calculated by the harbour. Permit issued in 2001. Previously reported dumping site. Also reported to HELCOM.
- (5) 2000 m³. Permit issued in 2009. Previously reported dumping site. Also reported to HELCOM.
- (6) Dredging at four sites (Älvsborg, Majnabbe, Björlanda and Torshamnen). Permit issued in 2001. The amounts in tonnes dry weight and amounts of pollutants were calculated by the harbour. Previously reported dumping site. Also reported to HELCOM.
- (7) 60 000 m³ clay-gyttja (measured on the bottom at the dredging site). Previously reported dredging site. Also reported to HELCOM.
- (8) 500 m³ sand. Permit issued in 2008. Previously used dumping site. The dumping was done in 2009 but has not been reported before. Also reported to HELCOM.

3.3.5 United Kingdom

- (1) NS100 was a deposit site in the North Sea disposal of pipeline pre-sweep sediment.

3.4 Table 3 b

3.4.1 Germany

- (1) If more than the half of the values of concentration which were used to calculate the average were under the limit of detection . limit of detection than is the load marked by "<" and a superscript number. This number equates to the limit of detection in mg/kg.

1 => 0,05

2 => 0,1

3 => 0,5

4 => 1

5 => 50

3.4.2 Iceland

- (1) Concentrations of contaminants in samples did not exceed level 3 (disposal at sea generally allowed) of the national action levels, and in general, analysed values were within the range observed in unpolluted sediments. Therefore, calculations of loads are not considered relevant.

3.4.3 Ireland

- (1) This year, Ireland adopted a new approach using a combination of WFD guidance and best professional judgement to calculate amounts of contaminants disposed in cases where chemical analysis results are lower than LoD. While it may appear that the quantities of contaminants disposed of have, in some cases, significantly increased this is in fact a result of the method of calculation. The intention is to give a more accurate picture of amounts, so that a best estimate is reported instead of zero, as has occasionally been the case in the past.

Limits of Detection indicated by < in Table 3b

- Dumpsite 33, DDT - <10 µg kg⁻¹
- Dumpsite 56, PBC - < 0.1 µg kg⁻¹
- Dumpsite 56, □- HCH / HCB - < 3 µg kg⁻¹
- Dumpsite 56, TBT / DBT - < 0.003 µg kg⁻¹

3.4.4 Netherlands

- (1) In Scheveningen Harbour, Eastern Scheldt and Slijkgat no dredging was done in 2010, therefore no amounts are stated for the deposit site NL-6, NL-10 and NL-16.
- (2) The amounts for deposit sites NL-13, 14 and 15 were not available at the time of reporting.

3.4.5 Sweden

The numbering is the same as in Table 3a

- (3) Quantification limits for Hg: <1, <0,05 and <0,1 mg/kg., for ΣPCB7 0,01, 0,007 and 0,0035 mg/kg.
- (4) The amount in tonnes dry weight and amounts of pollutants were calculated by the harbour. Quantification levels for ΣPCB7 and TBT are not stated.
- (5) The amounts of Hg and Cd are estimated (limits of quantification: Cd <0,1 Hg <0,05 mg/kg).
- (6) The amounts in tonnes dry weight and amounts of pollutants were calculated by the harbour. Quantification level for TBT is not stated.
- (7) In all the 31 samples analysed for TPhT, the concentration is below the limit of quantification (<1 µg/kg).
- (8) The amount of Hg is estimated (Limit of quantification <0,04 mg/kg). All ΣPCB7 concentrations below the limit of quantification (<0,0004 mg/kg).

4. Legend to all tables

NA	Not applicable
ND	Not determined
NI	No information
DL	Detection limit

Figure 1: Location of Dumping sites in 2010

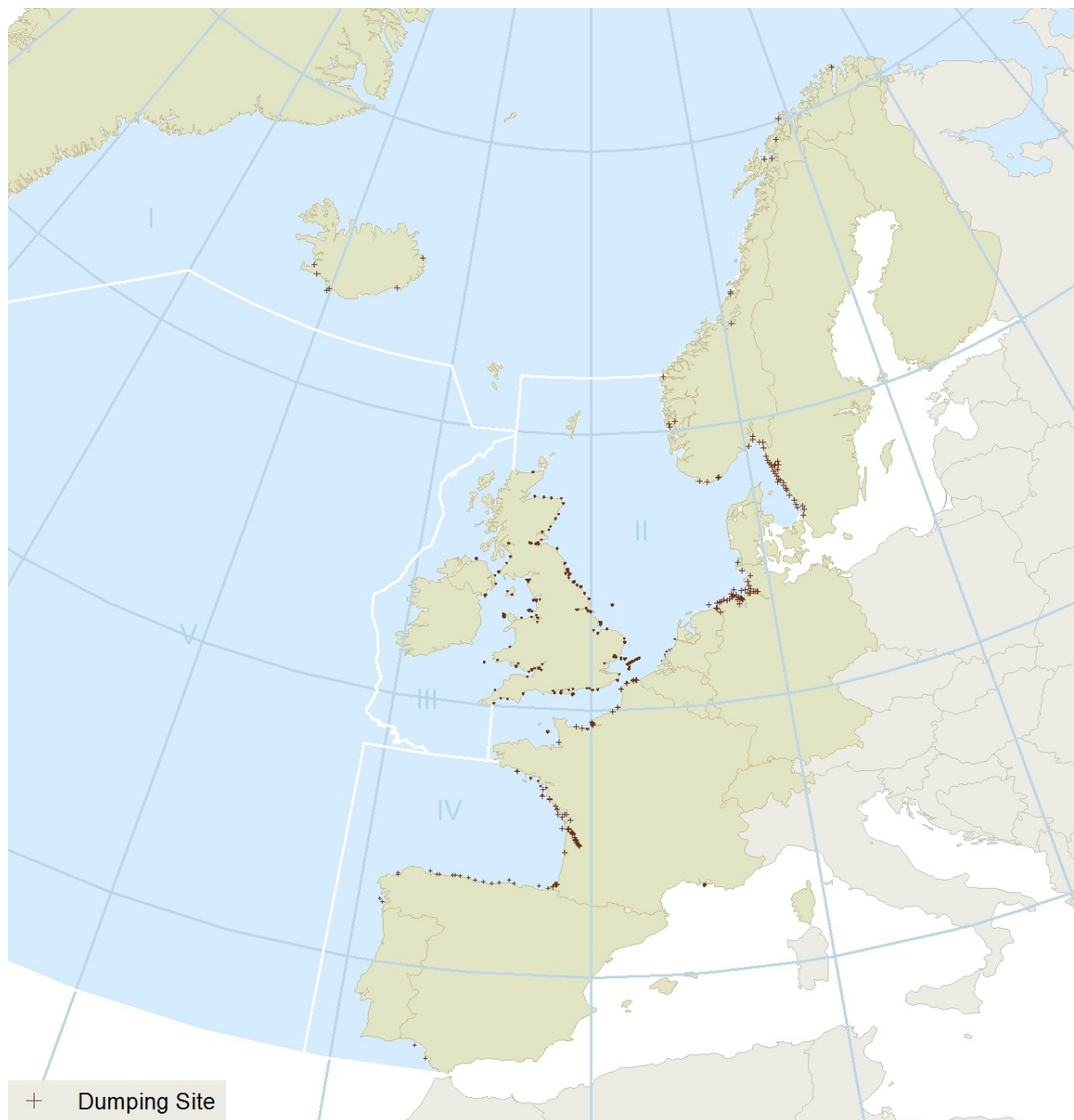


Figure 2a: Location of Dumping Sites in Belgium

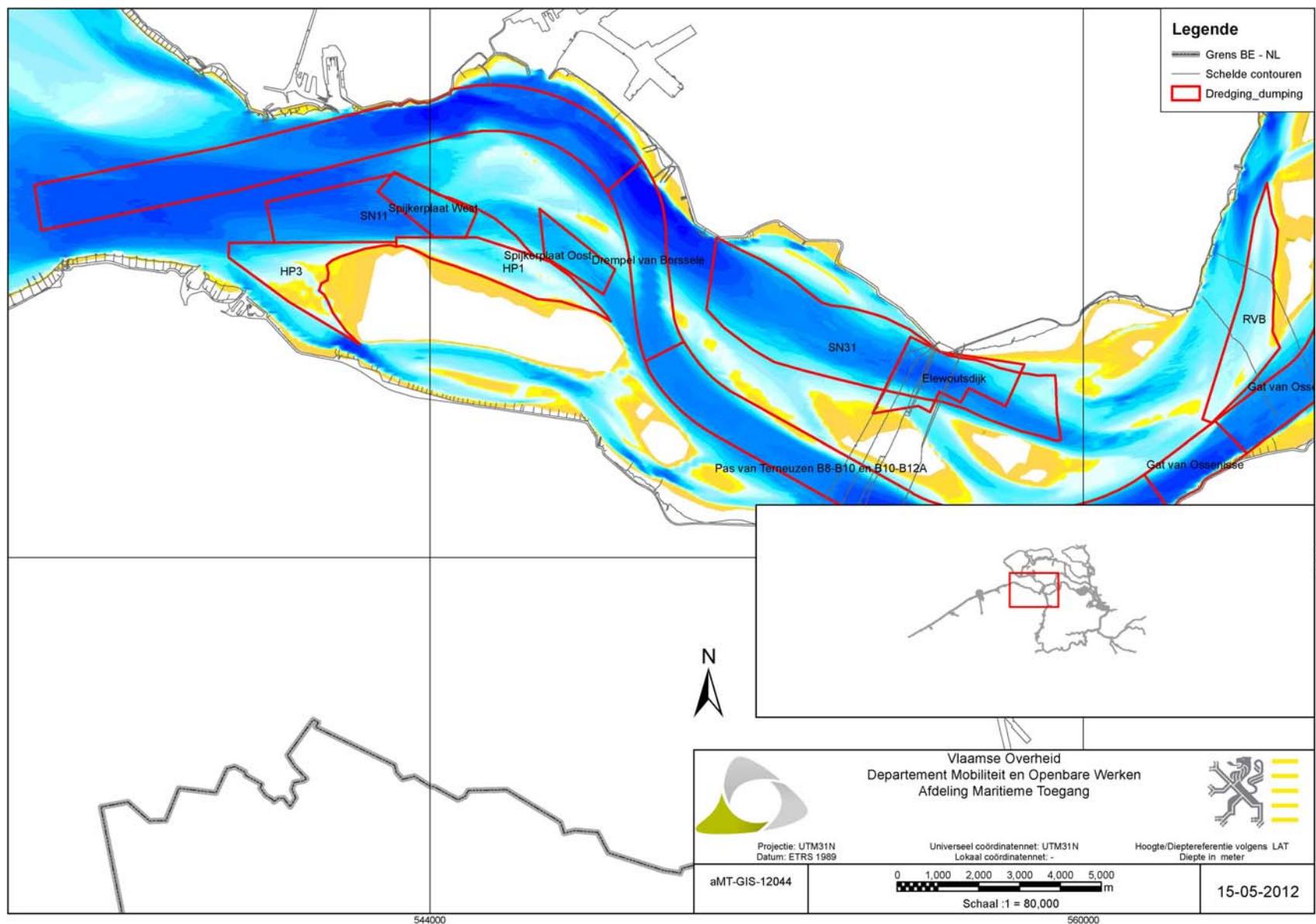


Figure 2b:

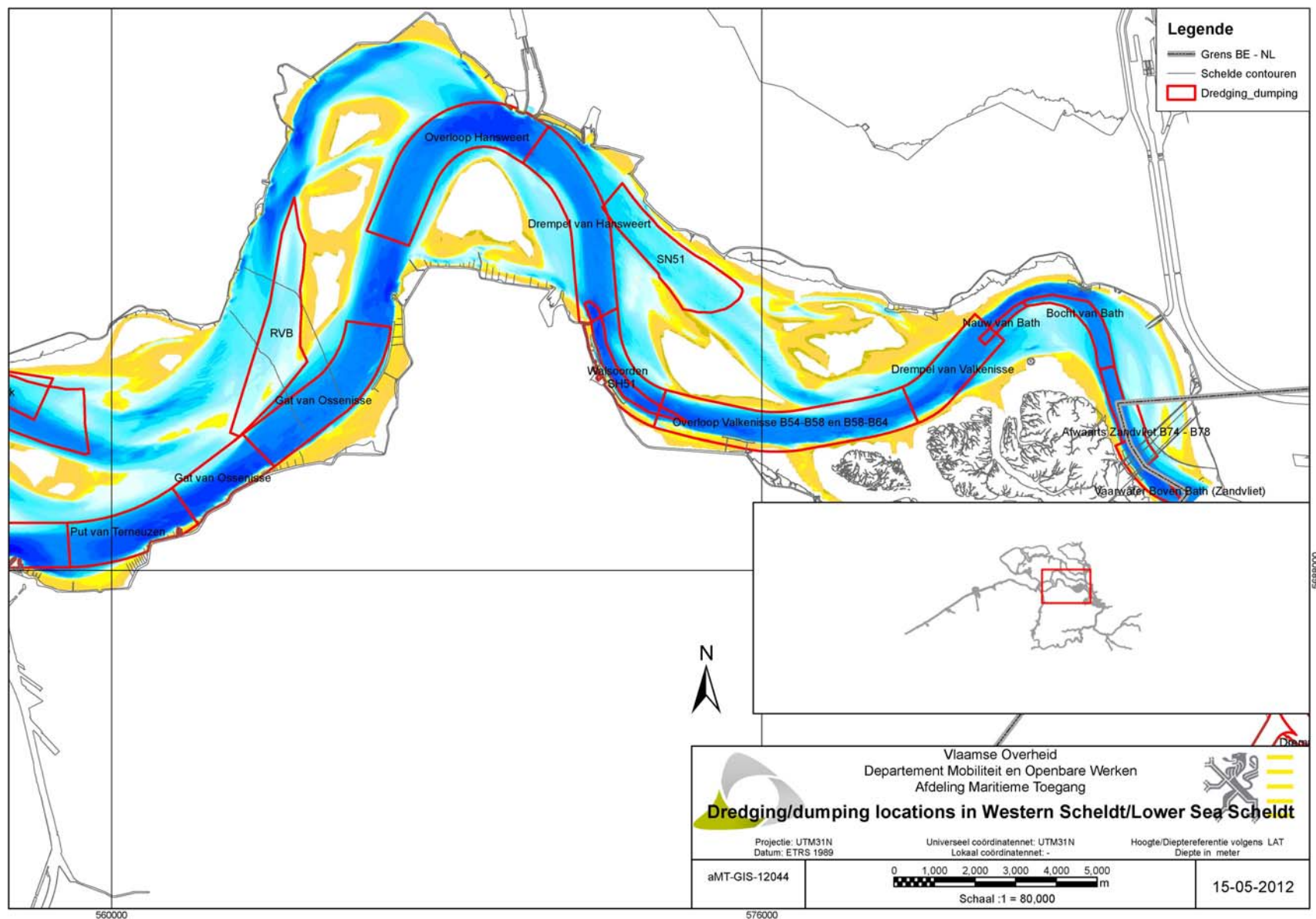


Figure 2c:

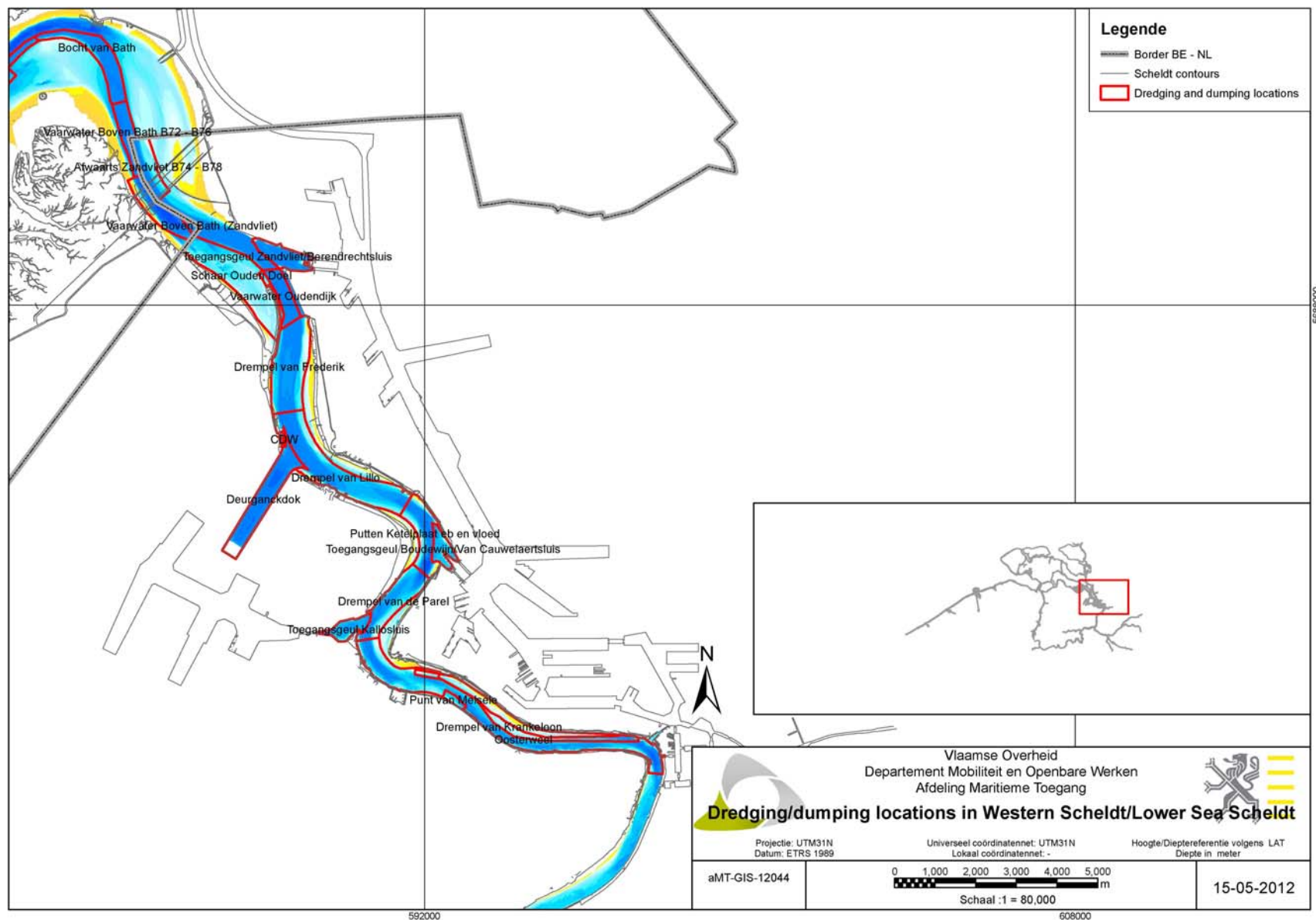


Figure 3: Location of Dumping Sites in France

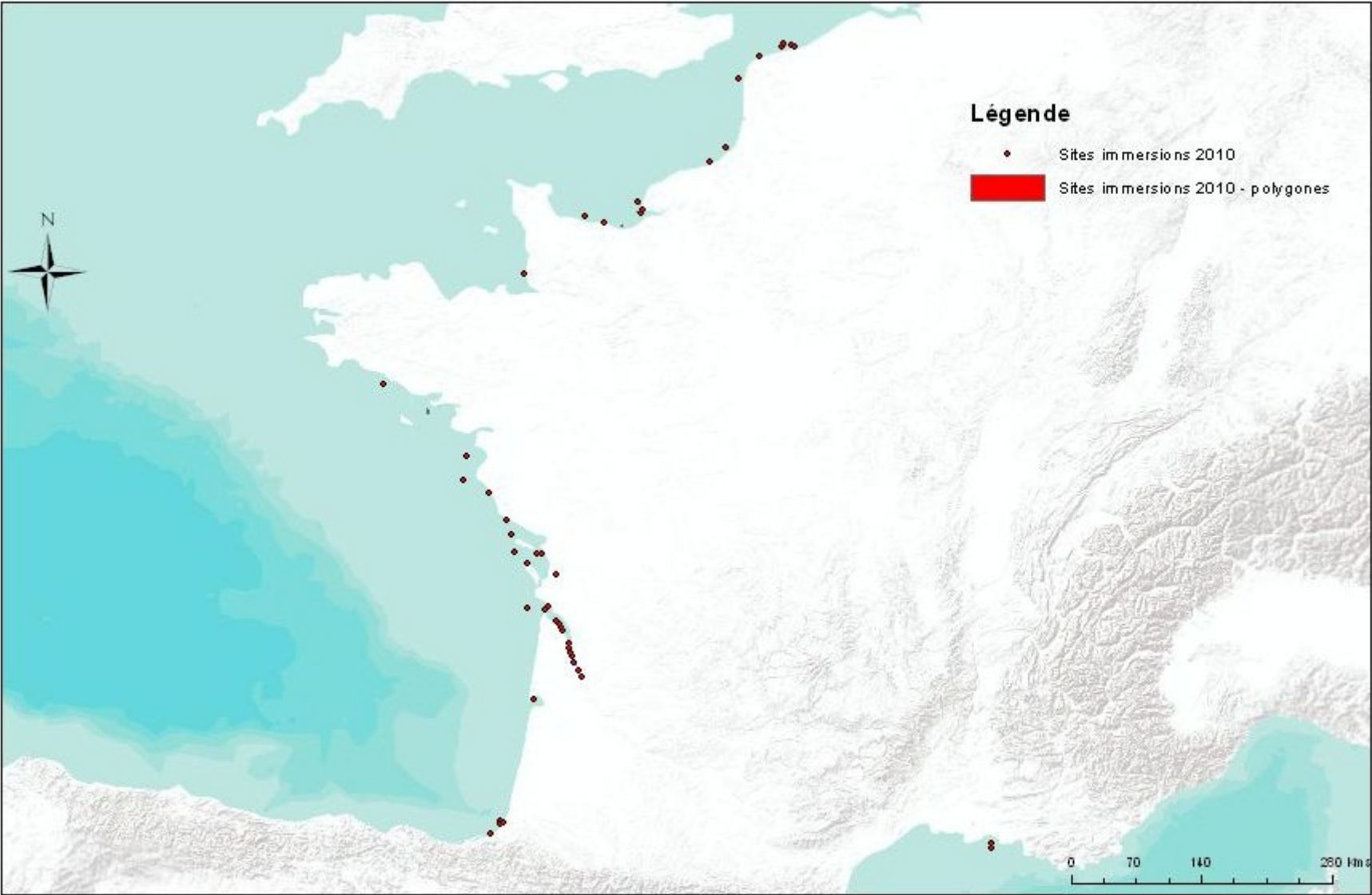


Figure 4: Location of Dumping Sites in Germany

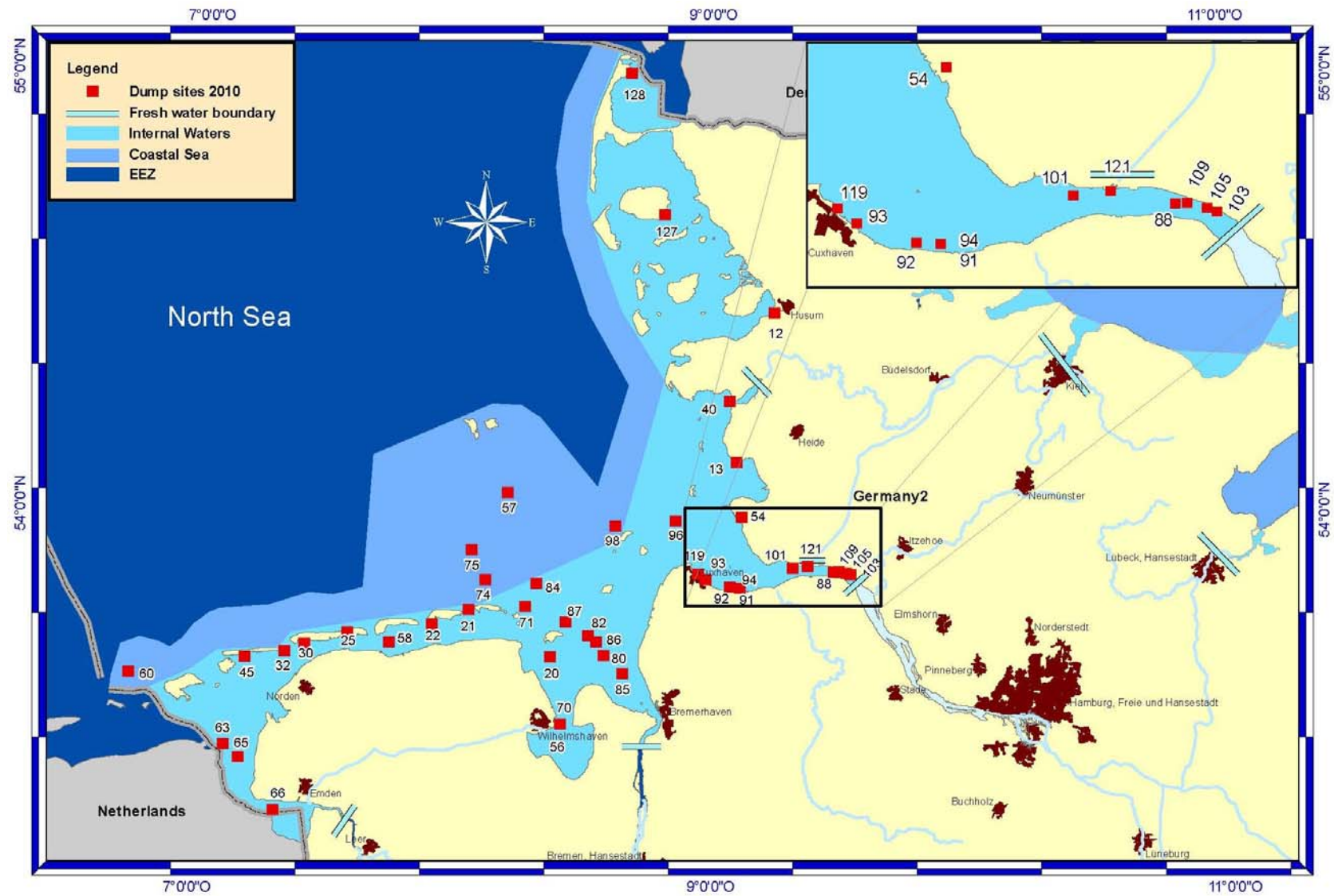


Figure 5: Location of Dumping Sites in Iceland

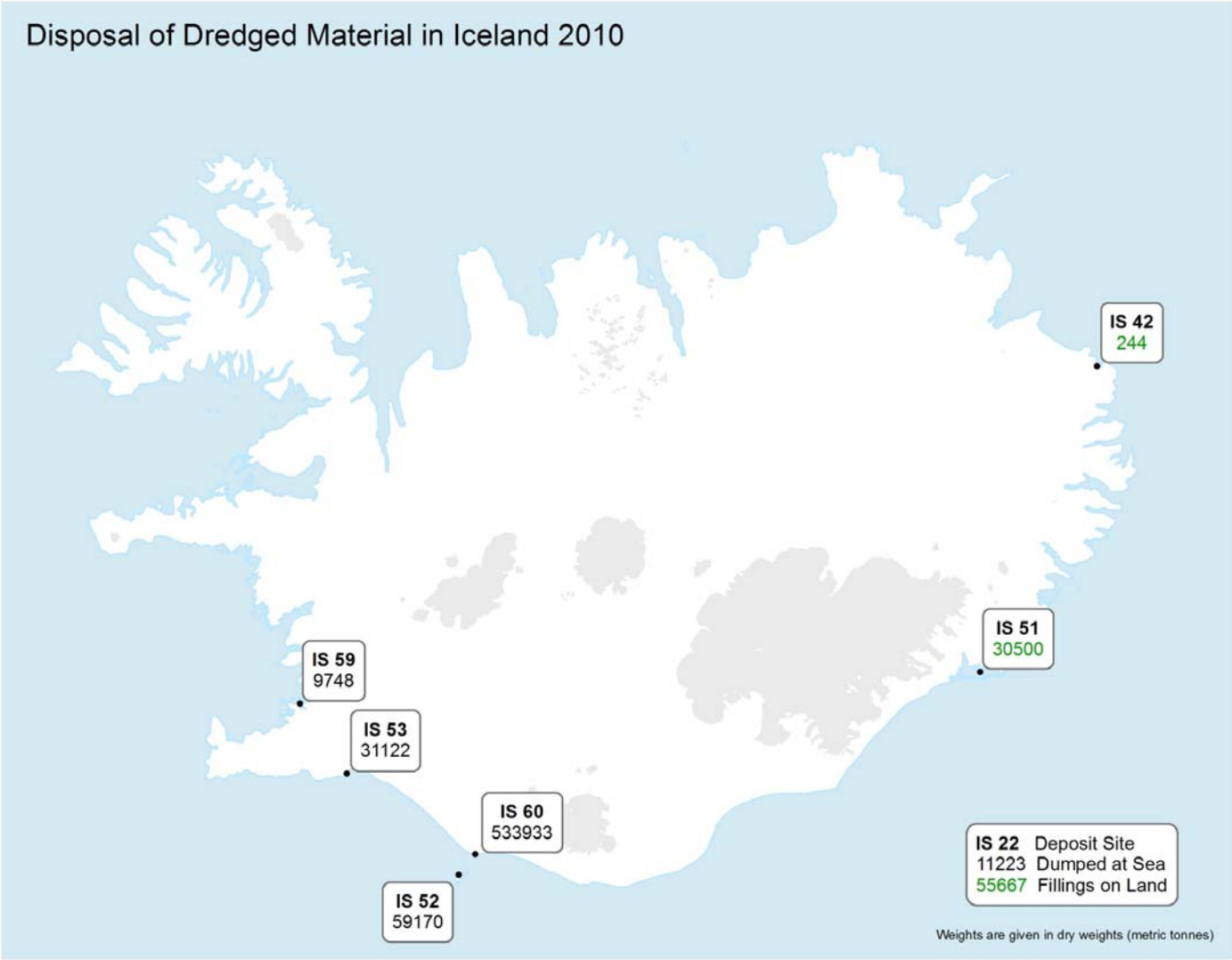


Figure 6a: Location of Dumping Sites in the Netherlands

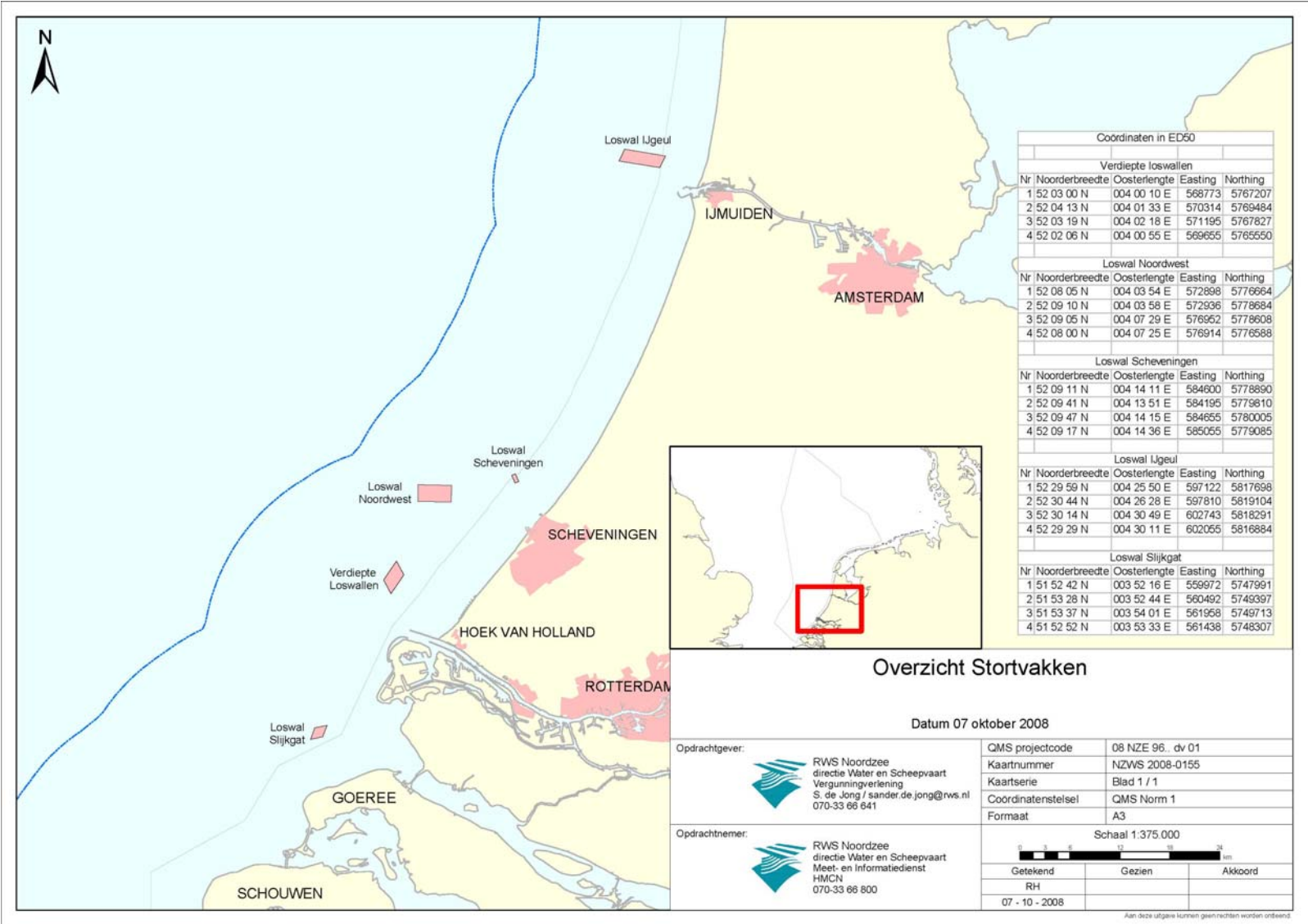
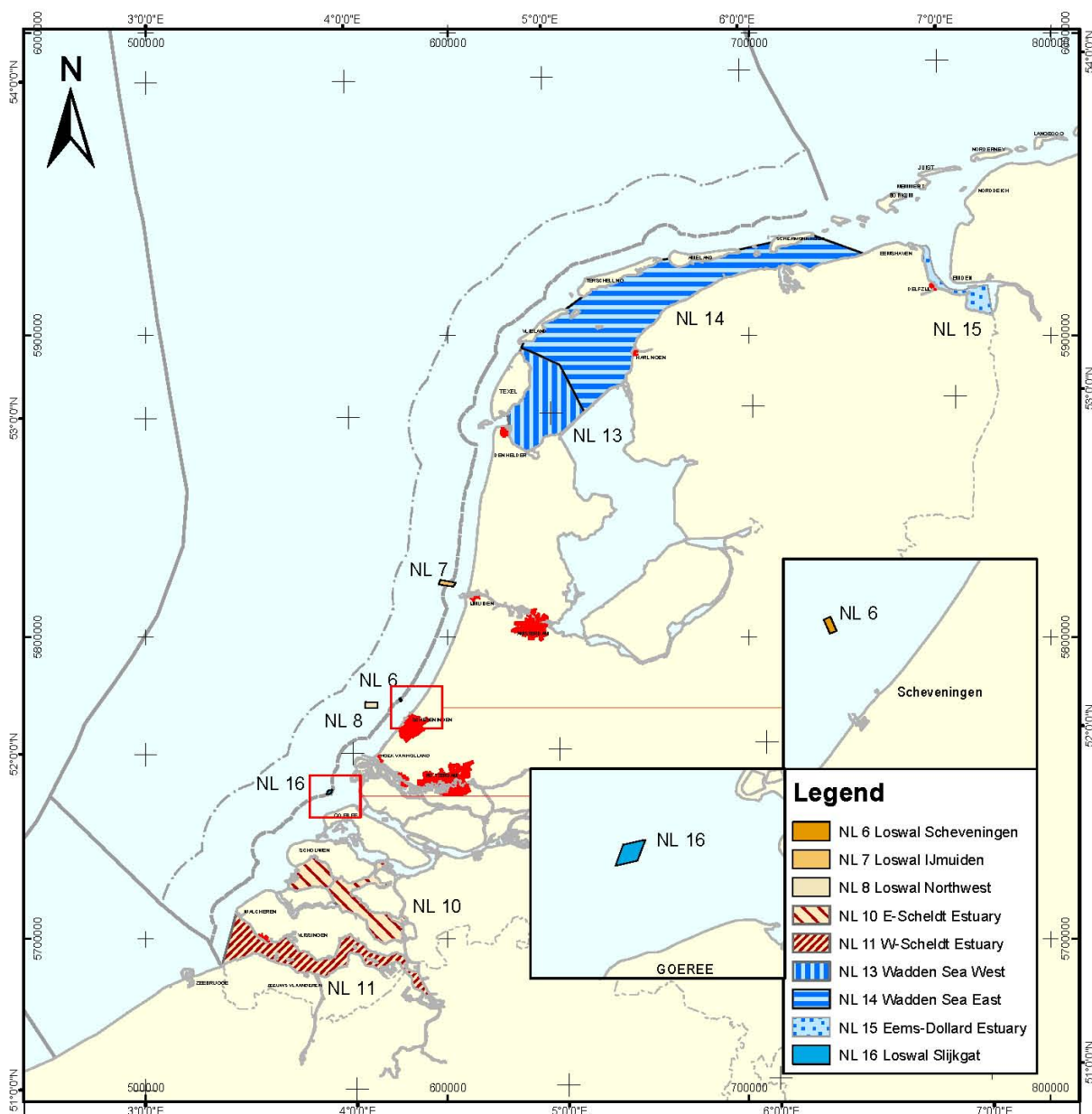


Figure 6b:



Approximate position of the dumping sites for dredged materials in Oslo convention waters used in 2009 by the Netherlands

Opdrachtgever:



RWS Noordzee
directie Water en Scheepvaart (WS)
afdeling Vergunningverlening (WSV)
S. de Jong
070-3366641

QMS projectcode

10 NZE 9639_01

Kaartnummer

NZWS-2010 - 0140

Kaartserie

Blad 1/1

Coördinatenstelsel

ETRS89 UTM zone 31N

Formaat

A4

Opdrachtnemer:



RWS Noordzee
directie Water en Scheepvaart (WS)
Meet- en Informatiedienst (WSM)
HMCN
070-3366800

Schaal 1:1.750.000

0 12,5 25 50 75 100 km

Getekend

Gezien

Akkoord

GM

14 - 04 - 2010

Aan deze uitgave kunnen geen rechten worden ontleend.

Figure 7: Location of Dumping Sites in Spain

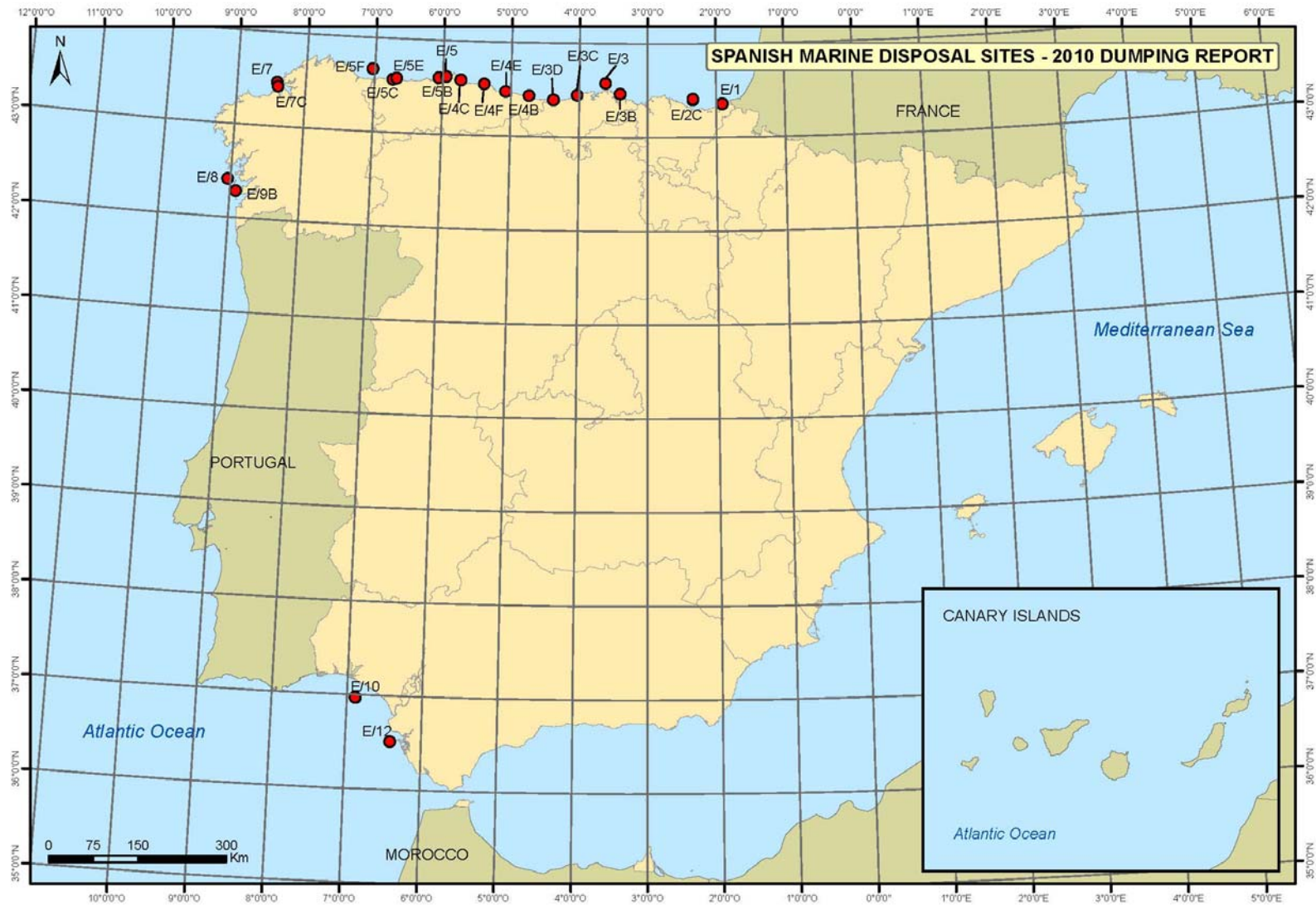


Figure 8a: Location of Dumping Sites in the UK

Marine disposal sites in South Wales and the Bristol Channel.
Site codes and quantities deposited in tonnes dry weight, in 2010.

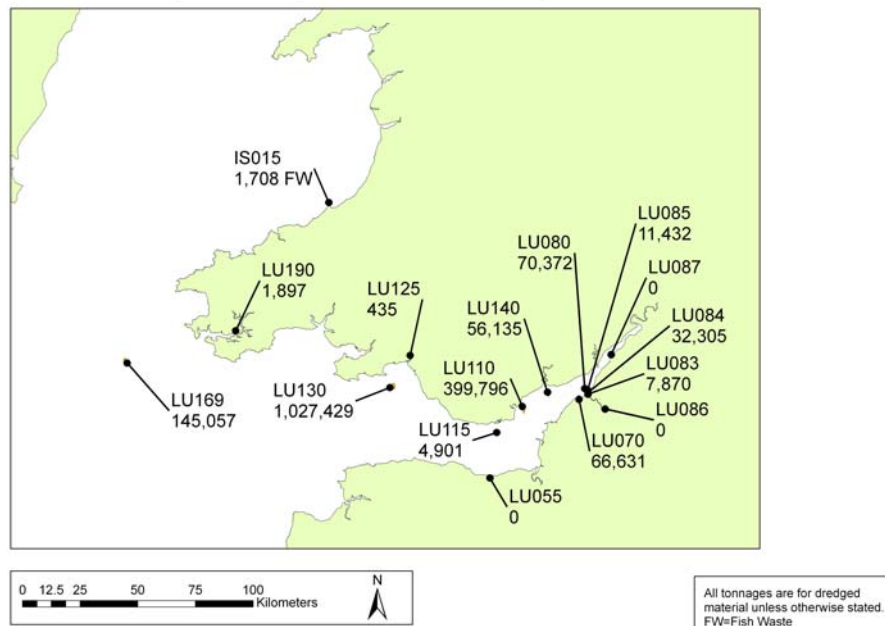


Figure 8b:

Marine disposal sites in SW England. Site codes and quantities deposited in tonnes dry weight, in 2010.

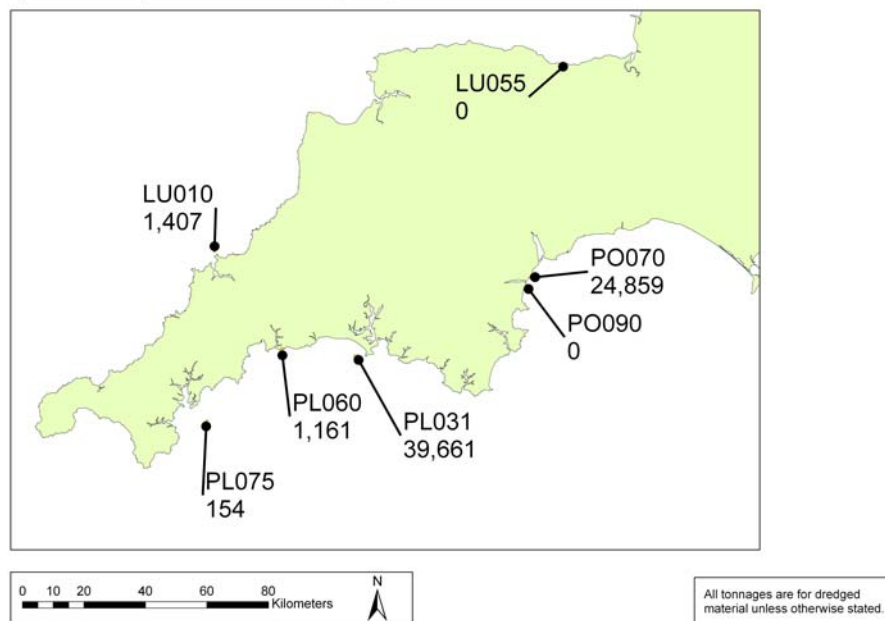


Figure 8c:

Marine disposal sites in NE England. Site codes and quantities deposited in tonnes dry weight, in 2010.

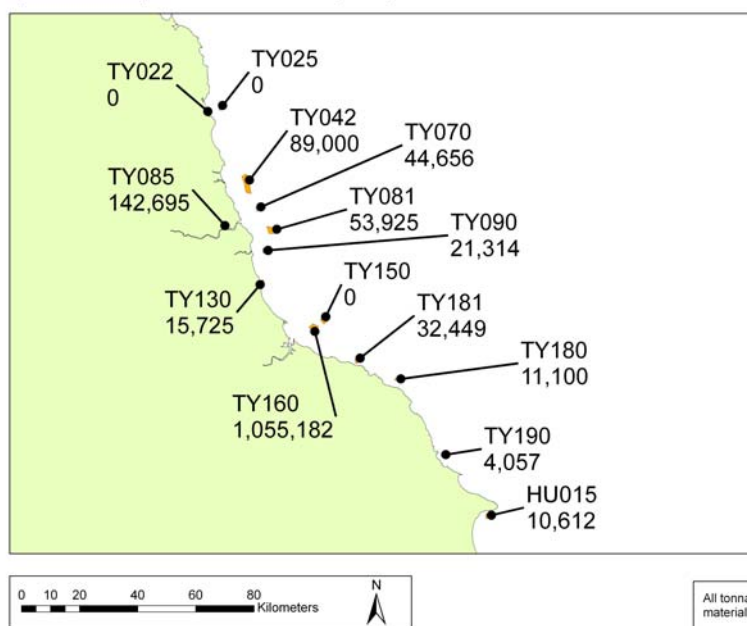


Figure 8d:

Marine disposal sites in southern England. Site codes and quantities deposited in tonnes dry weight, in 2010.

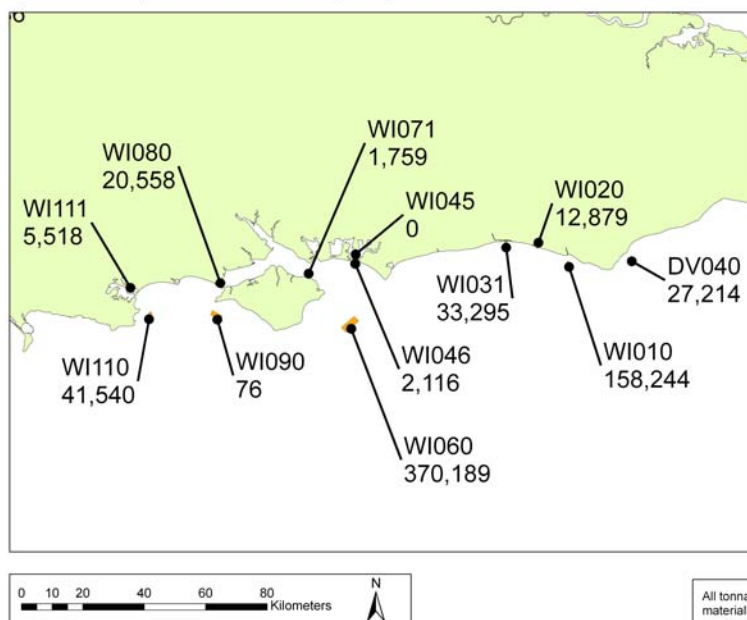


Figure 8e:

Marine disposal sites in North Wales and NW England.
Site codes and quantities deposited in tonnes dry weight, in 2010.

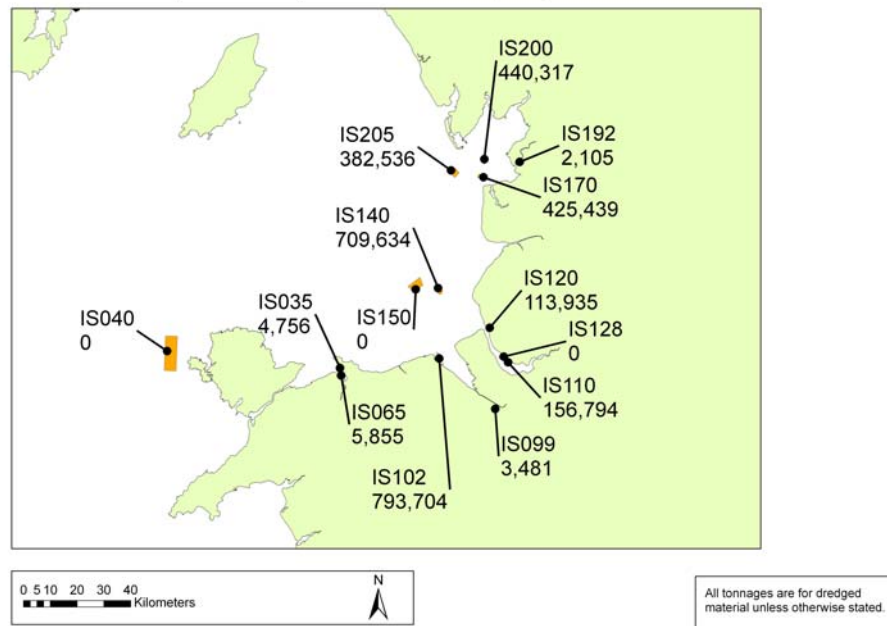


Figure 8f:

Marine disposal sites in Northern Ireland, SW Scotland and the Isle of Man.
Site codes and quantities deposited in tonnes dry weight, in 2010.

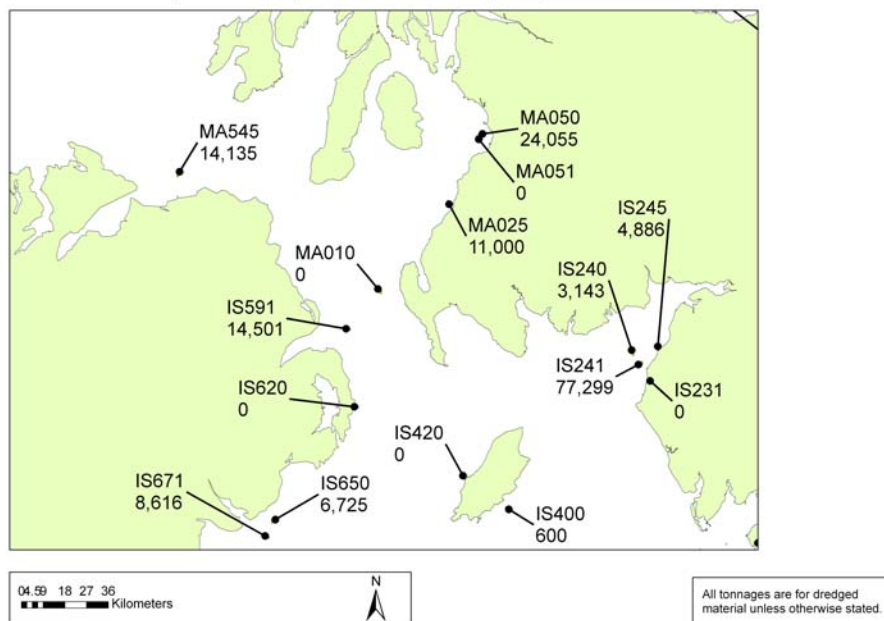
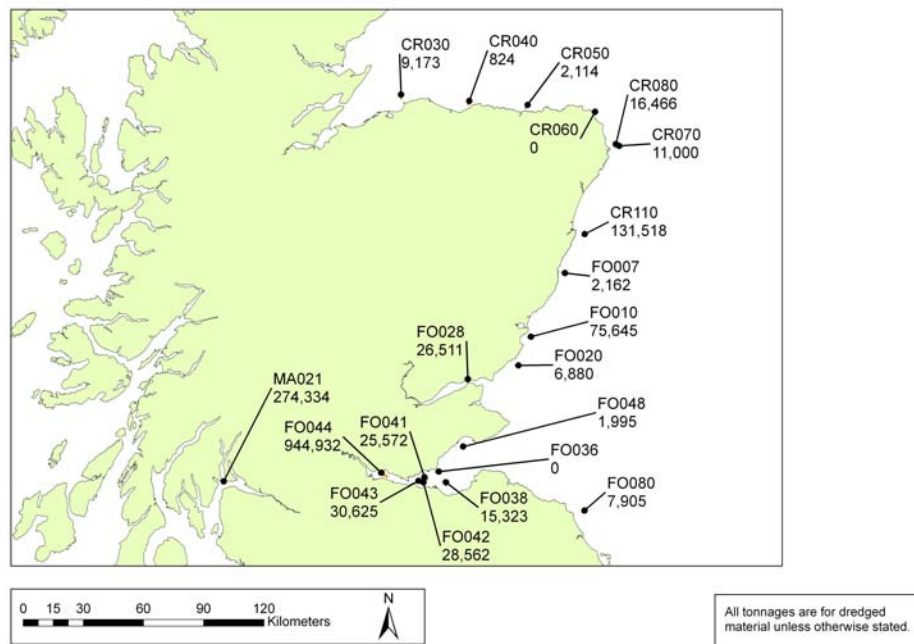


Figure 8g:

Marine disposal sites in East Scotland. Site codes and quantities deposited in tonnes dry weight, in 2010.





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**OSPAR's vision is of a clean, healthy and biologically diverse
North-East Atlantic used sustainably**

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