



Annual OSPAR report on dumping of wastes or other matter at sea in 2008

Denmark had not sent any data for 2008 at the time of publication.

OSPAR Convention

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

Convention OSPAR

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

Contents

Part I

Report on Dumping Permits Issued in 2008

Table 1:	Overview of number of permits issued, tonnes licensed and tonnes dumped in 2008
Table 2:	Specific reporting on dumping operations of dredged material exceeding national action levels for sea disposal within 2008

Report on the Amounts of Wastes or other Matter Dumped at Sea in 2008

Table 3a:	Details of categories, origin or dredged material, dredging operation, deposit sites and dumping amounts
Table 3b:	Total loads (methods of determination indicated in Part II)

Part II

General information
Additional information
Footnotes to all tables

Part III

Maps

The maps will be inserted at a later stage.

Part III

Figure 1:	Locations of dumping sites in 2008
Figure 2a:	Belgium
Figure 2b:	Belgium (Internal waters)
Figure 3a:	France (English Channel)
Figure 3b:	France (Atlantic Ocean)
Figure 4a:	Germany
Figure 4b:	Germany (Estuary of the Elbe)
Figure 5:	Iceland
Figure 6:	Ireland
Figure 7:	the Netherlands

Part I - Tables

Report on Dumping Permits Issued in 2008

Table 1 Overview of number of permits issued, tonnes licensed and tonnes dumped in 2008

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	11				0	33 780 000	30 906 907	
France	39					75 195 000	21 700 530	(1), (2)
Germany	19				29		16 069 000	(1), (2), (3)
							28 700 000	(4)
							about 400	(5)
Iceland	1					345 000	374 137	(1)
Ireland	9					863 842	436 425	(1)
Netherlands	9				numerous	25 000 000 m ³	12 597 489	(1), (2), (3)
Norway	82					1 365 763	1 580 596	(1)
		6				209 750		
			7			3 433		
				2		1 650		
Portugal	18					4 571 285	7 607 732	
		2				27 500		
Spain	18					2 009 344	2 009 344	(1) (2)
Sweden	10					56 200	47 425	(1)
United Kingdom	186					54 176 221	16 313 235	(1)(2)
			1			2000		(3)

Table 2 Specific reporting on dumping operations of dredged material exceeding national action levels for sea disposal within 2008

OSPAR-codes	Contaminants of concern			Tonnes dumped	Reasons for allowing disposal	Notes
Deposit site code	Type	Upper action level (mg/kg)	Average concentration in the material (mg/kg)	(dry weight)		
FRANCE						
F/08508	Cu	90	214	3460	(1)	
F/08508	Cu	90	105	3020	(1)	
F/06401	CB180	50	63	4620	(1)	
F/97402	Ni	74	147	40900	(1)	
GERMANY			(1)			
D/57	CB180	0,006	0,0084	620 000	(2)	
D/21	HCB	0,006	0,0072	2 000	(5)	
D/57			0,0147	620 000	(2)	
D/88			0,0101	1 151 000	(3)	
D/107			0,0098	10 000	(3)	
D/120			0,0090	761 000	(3)	
D/57	y-HCH	0,0006	0,0007	78 000	(2)	
D/57	p.p.-DDT	0,003	0,0122	620 000	(2)	
D/88			0,0061	1 151 000	(3)	
D/107			0,0050	10 000	(3)	
D/120			0,0034	761 000	(3)	
D/57	p.p.-DDD	0,01	0,0271	620 000	(2)	
D/88			0,0163	1 151 000	(3)	
D/101			0,0120	3 135 000	(4)	
D/107			0,0173	10 000	(3)	
D/120			0,0151	761 000	(3)	
D/121			0,0120	586 000	(4)	
D/57	p.p.-DDE	0,003	0,0099	620 000	(2)	
D/88			0,0062	1 151 000	(3)	
D/101			0,0038	3 135 000	(4)	
D/107			0,0062	10 000	(3)	
D/120			0,0064	761 000	(3)	
D/121			0,0038	586 000	(4)	

Amounts of wastes or other matter dumped at sea in 2008

Table 3a Details of categories, origin of dredged material, 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 name of watersystem	type of areas dredged			dredging operation type		(in metric tonnes) dry weight	notes
						Harbour	Estuary	Sea	capital	maintenance		
Belgium												
B/1	x				Pas van het Zand			X		x	2 010 273	
B/1	x				CDNB Zeebrugge			X		x	982 264	
B/1	x				Voorhaven			X		x	78 978	
B/1	x				Scheur Oost			X		x	572 442	
B/1	x				Scheur West			X		x	1 244 356	
B/1	x				Pas van het Zand			X	X		545 907	
B/3	x				Pas van het Zand			X		x	46 301	
B/3	x				CDNB Zeebrugge			X		x	12 483	
B/3	x				Pas van het Zand			X	X		369 804	
B/6	x				Haven en voorhaven Zeebrugge			X		x	3 425 698	
B/6	x				CDNB Zeebrugge			X		x	1 169 213	
B/6	x				Spuikom Blankenberge	X				x	7 023	
B/6	x				Vlotkom Blankenberge	X				x	1 825	
B/9	x				Ingangseul Oostende			X		x	318 264	
B/9	x				Montgomerydok Oostende	X				x	8 159	
B/9	x				Haven Oostende	X				x	457 122	
B/9	x				Nieuw vaargeul Oostende			X	X		335 283	
B/99	x				Toegangsgeul Nieuwpoort			X		x	12 741	
B/99	x				Vaar- en havengeul Nieuwpoort			X		x	32 209	
B/99	x				Nieuwe jachthaven			X		x	9 990	
B/99	x				Oude vlotkom	X				x	3 981	
B/99	x				Novus Portus	X				x	613	
B/int 1a	x				Drempel van Vlissingen					x	123 120	
B/int 1a	x				Drempel van Borssele					x	932 588	
B/int 1a	x				Gat van Ossenis (30-34)					x	1 948	
B/int1b	x				Drempel van Vlissingen					x	193 106	
B/int1b	x				Drempel van Borssele					x	264 720	
B/int2c	x				Drempel van Borssele					x	405 908	
B/int 4	x				Drempel van Hansweert					x	266 692	
B/int 4	x				Dr. Valkenisse 50-54					x	44 876	

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			dredging operation type		(in metric tonnes) dry weight	notes
						Harbour	Estuary	Sea	capital	maintenance		
B/int 4	x				Dr. Valkenisse 58-62					x	243 666	
B/int 4	x				Drempel van Valkenisse					x	209 668	
B/int 4	x				Drempel van Bath					x	8 012	
B/int 7	x				Drempel van Hansweert					x	22 914	
B/int 7	x				Dr. Valkenisse 50-54					x	64 242	
B/int 7	x				Dr. Valkenisse 58-62					x	143 538	
B/int 7	x				Drempel van Valkenisse					x	335 576	
B/int 7	x				Drempel van Bath					x	264 640	
B/int 7	x				Vaarwater boven Bath					x	19 334	
B/int 8	x				Drempel van Vlissingen					x	31 056	
B/int 8	x				Drempel van Borssele					x	660 288	
B/int 8	x				Pas van Terneuzen					x	491 396	
B/int 8	x				Put vanTerneuzen					x	24 808	
B/int 8	x				Drempel van Hansweert					x	104 330	
B/int 8	x				Dr. Valkenisse 50-54					x	119 592	
B/int 8	x				Dr. Valkenisse 58-62					x	315 694	
B/int 8	x				Drempel vanValkenisse					x	120 256	
B/int 8	x				Nauw van Bath					x	89 548	
B/int 8	x				Drempel van Bath					x	36 064	
B/int 8	x				Vaarwater boven Bath					x	68 896	
B/int 9	x				Gat van Ossenis (30-34)					x	2 016	
B/int 9	x				Drempel van Hansweert					x	2 920 064	
B/int 9	x				Drempel van Walsoorden					x	66 208	
B/int 9	x				Dr. Valkenisse 54-58					x	273 718	
B/int 9	x				Dr. Valkenisse 58-62					x	1 985 618	
B/int 9	x				Drempel van Valkenisse					x	1 649 252	
B/int 9	x				Nauw van Bath					x	7 756	
B/int 9	x				Drempel van Bath					x	575 746	
B/int 9	x				Vaarwater boven Bath					x	8 012	
B/int 15	x				Drempel van Bath					x	5 316	
B/int 0	x				Drempel van Frederik					x	89 432	
B/int 0	x				Toeg. Kallosluis					x	176 512	
B/int 0	x				Toeg. Bou/Cau sluis					x	63 370	
B/int 0	x				Deurganckdok					x	222 472	
B/int 1bis	x				Drempel van Zandvliet					x	879 114	

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			dredging operation type		(in metric tonnes) dry weight	
B/int 1bis	x				Toeg. Zand/Beren-sluis					x	2 676	
B/int 1bis	x				Vaarwater Oudendijk					x	28 570	
B/int 1bis	x				Drempel van Frederik					x	732 928	
B/int 1bis	x				Drempel van Lilo					x	357 952	
B/int 1bis	x				Vaarwater Pl. Lilo					x	86 856	
B/int 1bis	x				Drempel vd Parel					x	55 666	
B/int 1bis	x				Ro Ro Steiger					x	143 356	
B/int 1bis	x				Krankeloon					x	57 948	
B/int 1bis	x				Kaaien 23-27					x	15 944	
B/int12	x				Containerkaai Noord					x	4 260	
B/int12	x				Drempel van Zandvliet					x	4 890	
B/int12	x				Toeg. Zand/Beren-sluis					x	213 674	
B/int12	x				Drempel van Frederik					x	38 876	
B/int12	x				Drempel van Lilo					x	46 222	
B/int12	x				Vaarwater Pl. Lilo					x	3 346	
B/int12	x				Toeg. Kallosluis					x	397 316	
B/int12	x				Toeg. Bou/Cau sluis					x	84 878	
B/int12	x				Dr. van Deurganckdok					x	41 234	
B/int 12	x				Deurganckdok					x	746 170	
B/int 13	x				Containerkaai Noord					x	4 138	
B/int 13	x				Drempel van Zandvliet					x	10 994	
B/int 13	x				Toeg. Zand/Beren-sluis					x	722 446	
B/int 13	x				Drempel van Lilo					x	44 228	
B/int 13	x				Vaarwater Pl. Lilo					x	17 270	
B/int 13	x				Drempel vd Parel					x	254 382	
B/int 13	x				Ro Ro Steiger					x	28 812	
B/int 13	x				Krankeloon					x	30 898	
B/int 13	x				Kaaien 23-27					x	554 966	
Total											30 906 907	

France												
F/05901	x					x				x	913 369	
F/05902	x					x				x	301 508	
F/05903	x					x				x	82 435	
F/05904	x					x				x	457 037	
F/06201	x					x				x	437 000	

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			dredging operation type		(in metric tonnes) dry weight	notes
						Harbour	Estuary	Sea	capital	maintenance		
F/06202	x					x				x	623 000	
F/07601	x					x				x	5 705 000	
F/07602	x					x	x			x	2 083 108	
F/07603	x					x				x	69 332	
F/07604	x					x				x	35 410	
F/07605	x					x	x			x	33 239	
F/07606	x					x				x	45 976	
F/01401	x					x				x	383 830	
F/01403	x					x				x	16 360	
F/01407	x					x				x	20 510	
F/01409	x					x				x	59 119	
F/05601	x					x				x	93 000	
F/04412	x					x				x	18 778	
F/04401	x						x			x	3 097 161	
F/08501	x					x				x	8 380	
F/08503	x					x				x	25 919	
F/08506	x					x				x	27 445	
F/08507	x					x				x	2 140	
F/08508	x					x				x	36 760	
F/08510	x					x				x	2 704	
F/08513	x					x				x	7 170	
F/01706	x					x				x	58 000	
F/01701b	x					x				x	162 600	
F/01707	x					x				x	150 000	
F/01710	x					x				x	12 900	
F/01715	x					x				x	4 600	
F/01711b	x					x				x	5 200	
F/01714b	x					x				x	6 000	
F/03326	x					x				x	4 700	
F/03328	x					x				x	4 400	
F/03327	x					x				x	5 600	
F/03319	x					x				x	1 087 000	
F/03318	x					x				x	121 000	
F/03311;F/03314;F/03315;F/03316 ;F/03317	x					x				x	960 000	

OSPAR-codes	categories				In case of dredged material						total quantity (in metric tonnes) dry weight	notes
Deposit site	dredged material	inert material	fish waste	others	origin name of watersystem	type of areas dredged			dredging operation type			
						Harbour	Estuary	Sea	capital	maintenance		
F/03307;F/03308;F/03309;F/03311	x					x				x	2 768 000	
F/03301;F/03303;F/03305;F/03306;F/03307;F/03311	x					x				x	1 363 000	
F/03330	x					x				x	24 000	
F/03312	x					x				x	9 070	
F/06401	x						x			x	186 110	
F/06401 – F/06403	x					x	x			x	182 660	
Total											21 700 530	

Germany												
D/12	x				Husum harbour	x				x	61 000	
D/13	x				Harbour and outer harbour of Büsum	x				x	19 000	
D/20	x				Outer harbour of Hooksiel	x				x	11 000	
D/21	x				Wangerooge harbour	x				x	2 000	
D/22	x				Spiekeroog harbour	x				x	14 000	
D/25	x				Baltrum harbour	x				x	1 000	
D/30	x				Norderney harbour	x				x	4 000	
D/32	x				Norddeich harbour	x				x	9 000	
D/36	x				Borkum, Minitrain harbour and approach channel of Borkum island	x				x	1 000	
D/44	x				Langeoog harbour	x					3 000	
D/45	x				Approach channel of Juist harbour	x				x	12 000	
D/52	x				Wyk habour (Föhr)	x				x	13 000	
D/54	x				Friedrichskoog harbour	x				x	58 000	
D/55	x				Amrum /Wittdün approach channel of harbour	x				x	2 000	(1)
D/56	x				Wilhelmshaven	x	x			x	128 000	
D/57	x				Hamburg harbour Norderelbe	x				x	620 000	
D/58	x				Langeoog harbour, Bensersiel harbour and approach channel to Bensersiel harbour	x				x	15 000	
D/60	x				Ems estuary, navigation channel km 90,0-105,0; Borkum harbour		x			x	621 000 1 000	(1)
D/63	x				Ems estuary, navigation channel km 40,7-74,6		x			x	1 466 000 1 181 000	(1)
D/65	x				Ems estuary, navigation channel km 31-53		x			x	1 943 000 1 301 000	(1)
D/71	x				Jade bay / navigation channel km 6,0-54,0	x	x			x	31 000 1 177 000	(1)

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			dredging operation type		(in metric tonnes) dry weight	notes
						Harbour	Estuary	Sea	capital	maintenance		
D/72	x				Jade bay / navigation channel km 6,0-15,0	x	x			x	33 000	
D/73	x				Jade bay / navigation channel km 41,0-54,0	x	x			x	21 000	
D/74	x				Jade bay / navigation channel km 35-54,0	x	x			x	668 000	(1)
											277 000	(2)
D/75	x				Jade bay / navigation channel km 41,0-54,0	X	X			X	1 061 000	
D/76	x				Jade bay / navigation channel Neuer Vorhafen WHV	X	X			X	201 000	
D/78	x				Jade bay / navigation channel Neuer Vorhafen WHV	X	X			X	277 000	
D/80	x				Weser estuary / navigation channel km 85-91,0		X			X	743 000	
D/82	x				Weser estuary / navigation channel km 70,4-78,0; km 91,0-110,0		X			X	331 000	
D/84					Weser estuary / navigation channel km 110-130,0		X			X	1 479 000	
D/85	x				Weser estuary / navigation channel km 85,0-91,0		x			x	977 000	(1)
											473 000	(2)
D/86	x				Weser estuary / navigation channel km 91,0-110,0		x			x	1 136 000	(1)
											466 000	(2)
D/87	x				Weser estuary / navigation channel km 91,0-110,0		x			x	2 243 000	(1)
D/88	x				Elbe estuary / navigation channel; km 638-717	x	x			x	1 616 000	(1)
											1 151 000	(2)
D/91	x				Elbe estuary / navigation channel; okm 689,8-726,0; Weststrecke	x	x			x	42 000	(1)
D/92					Elbe estuary / navigation channel; km 689,9-732,0	x	x			x	1 210 000	(1)
D/93	x				Elbe estuary / navigation channel; km 698,5-739,0	x	x			x	2 394 000	(1)
											93 000	(2)
D/94	x				Elbe estuary / navigation channel; km 698,5-748,0					x	7 277 000	(1)
											206 000	(2)
D/95	x				Elbe estuary / navigation channel; Altenbruch km 717,0-726,0	x	x			x	86 000	(1)
D/96	x				Elbe estuary / navigation channel; km 717,0-739,0	x	x			x	1 394 000	(1)
D/98	x				Elbe estuary / navigation channel; Altenbruch km 717,0-726,0; km 732,0-748,0	x	x			x	3 540 000	(1)
D/101	x				outer port of the lock to the "Nord-Ostsee-Kanal" (Kiel-Canal); inner part of "Nord-Ostsee-Kanal"	x	x			x	3 135 000	
D/107	x				Elbe estuary / navigation channel; Wedel km 638,9-670	x	x			x	312 000	(1)
											10 000	(2)
D/110	x				Jade bay / navigation channel km 15,0-22,0	x	x			x	5 000	(3)
D/111	x				Jade bay / navigation channel km 22,0-35,0	x	x			x	14 000	(3)
D/119	x				Cuxhaven harbour	x				x	1 742 000	(1) (3)
											115 000	(1) (2)

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			dredging operation type		(in metric tonnes) dry weight	notes
						Harbour	Estuary	Sea	capital	maintenance		
D/120	x				Sediment trap		x			x	761 000	
D/121	x				Inner port of the lock Brunsbüttel and adjacent inner part of Kiel-Canal						586 000	
D/122		x			Land based inert material						320 stones each 1-3 t	(4)
D/123		x			Land based inert material							
D/124		x			Land based inert material							
Total											44 769 000	

Iceland											
IS/4	x					x			x		27 816
IS/5	x					x			x		3 904
IS/6	x					x			x		8 296
IS/8	x					x			x		32 696
IS/13	x					x			x		1 830
IS/27	x					x			x		52 850
IS/35	x					x			x		1 098
IS/39	x					x			x		7 076
IS/41	x					x			x		45 262
IS/46	x					x			x		3 660
IS/50	x					x			x		2 013
IS/51	x					x			x		30 500
IS/51	x					x				x	61 000
IS/53	x					x				x	17 690
IS/59	x					x			x		78 446
Total											374 137

Ireland											
IRL/8	x				Waterford Port and approaches	x	X			x	82 887
IRL/47	x				Drogheda Port and approaches	x	x			x	35 088
IRL/20	x				Drogheda Port and approaches	x	x			x	6 154
IRL/36	x				Fenit Harbour					x	26 198
IRL/17	x				Cork Harbour	x	x		x	x	242 185
IRL/54	x				Kilronan Harbour			X	x		43 912
Total											436 425

Netherlands											
NL-6	x				Scheveningen	x				x	412 298

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			dredging operation type		(in metric tonnes) dry weight	notes
						Harbour	Estuary	Sea	capital	maintenance		
NL-7	x				IJmuiden	x	x		x	x	3 347 433	
NL-8	x				Rotterdam	x				x	5 127 562	
NL-10					Eastern Sceldt							(1)
NL-11					Western Sceldt							(1)
NL-13					Waddensea West							(1)
NL-14	x				Waddensea East	x	x			x	2 060 316	
NL-15	x				Ems-Dollard	x	x			x	1 649 880	
Total											12 597 489	

Norway												
OS1	x				Oslo fjord	x				x	320	
OS1	x				Oslo fjord	x				x	480	
OS2	x				Oslo fjord	x				x	21 000	
OS2	x				Oslo fjord	x				x	1 100	
OS2	x				Oslo fjord	x				x	480	
OS2	x				Oslo fjord	x				x	5 000	
OS2	x				Oslo fjord	x				x	320	
OS3	x				Oslo fjord	x				x	64 000	
OS3	x				Oslo fjord	x				x	3 200	
OS3	x				Oslo fjord	x				x	900	
OS3	x				Oslo fjord	x				x	700	
OS4	x				Oslo fjord	x				x	800	
OS4	x				Oslo fjord	x				x	950	
OS4	x				Oslo fjord	x				x	3 500	
VE1	x				Oslo fjord	x				x	3 600	
VE1	x				Oslo fjord	x				x	1 200	
VE1	x				Oslo fjord	x				x	4 160	
VE1	x				Oslo fjord	x				x	1 200	
VE1	x				Oslo fjord	x				x	800	
VE1	x				Oslo fjord	x				x	800	
VE1	x				Oslo fjord	x				x	1 440	
VE1	x				Oslo fjord	x				x	576	
VE1	x				Oslo fjord	x				x	720	
VE1	x				Oslo fjord	x				x	3 360	
VE1	x				Oslo fjord	x				x	3 200	
VE1	x				Oslo fjord	x				x	1 200	

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			dredging operation type		(in metric tonnes) dry weight	notes
						Harbour	Estuary	Sea	capital	maintenance		
VE1	x				Oslo fjord	x				x	560	
VE1	x				Oslo fjord	x				x	640	
VE1	x				Oslo fjord	x				x	1 152	
VE1	x				Oslo fjord	x				x	1 600	
VE1	x				Oslo fjord	x				x	320	
VE1	x				Oslo fjord	x				x	1 120	
VE1	x				Oslo fjord	x				x	1 600	
VE1	x				Oslo fjord	x				x	4 160	
VE1	x				Oslo fjord	x				x	864	
VE1	x				Oslo fjord	x				x	800	
VE1	x				Oslo fjord	x				x	960	
VE1	x				Oslo fjord	x				x	640	
VE1	x				Oslo fjord	x				x	1 200	
VE1	x				Oslo fjord	x				x	1 440	
VE1	x				Oslo fjord	x				x	2 400	
VE1	x				Oslo fjord	x				x	960	
VE1	x				Oslo fjord	x				x	960	
VE1	x				Oslo fjord	x				x	320	
VE1	x				Oslo fjord	x				x	320	
VE2	x				Oslo fjord	x				x	1 280	
BU1	x				Oslo fjord	x				x	5	
BU1	x				Oslo fjord	x				x	4	
VA1	x				Skagerak	x				x	7 920	
VA1	x				Skagerak	x				x	1 140	
VA1	x				Skagerak	x				x	4 080	
VA2	x				Skagerak	x				x	24 000	
VA3	x				Skagerak	x				x	40 560	
VA4	x				Skagerak	x				x	120	
VA5	x				Skagerak	x				x	202 120	
VA6	x				Skagerak	x				x	540	
HO1	x				North Sea	x				x	3 360	
HO2	x				North Sea	x				x	423 900	
SF1	x				North Sea	x				x	1 500	
SF2	x				North Sea	x				x	50	
SF3	x	x			North Sea	x				x	130 500	

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 Harbour Estuary Sea			dredging operation type capital maintenance		(in metric tonnes) dry weight	
SF4		x			North Sea	x				x	15 000	
SF5		x			North Sea	x				x	121 000	
MR1		x			Norwegian Sea	x				x	53 750	
MR2	x				Norwegian Sea	x				x	3 576	
MR3	x				Norwegian Sea	x				x	900	(1)
MR3	x				Norwegian Sea	x				x	750	(1)
MR4	x				Norwegian Sea	x				x	2 500	
MR5	x				Norwegian Sea	x				x	8 000	
MR6		x			Norwegian Sea	x				x	2 400	
MR7	x				Norwegian Sea	x				x	12 000	
ST1	x				Norwegian Sea	x				x	1 440	
ST2	x				Norwegian Sea	x				x	24 000	
ST2	x				Norwegian Sea	x				x	72 000	
ST2	x				Norwegian Sea	x				x	76 800	
ST3		x			Norwegian Sea	x				x	17 600	
NT1	x				Norwegian Sea	x				x	3 024	
NT2	x				Norwegian Sea	x				x	6 100	
NT3	x				Norwegian Sea	x				x	32 000	
NT4	x				Norwegian Sea	x				x	14 400	
NO1	x				Norwegian Sea	x				x	1 072	
NO1	x				Norwegian Sea	x				x	17 360	
NO2	x				Norwegian Sea	x				x	240	
NO3	x				Norwegian Sea	x				x	3 520	
NO3	x				Norwegian Sea	x				x	1 730	
NO4	x				Norwegian Sea	x				x	6 400	
NO5			x		Norwegian Sea						400	
NO6			x		Norwegian Sea						400	
NO7			x		Norwegian Sea						350	
TR1	x				Norwegian Sea	x				x	24 000	
TR2	x				Norwegian Sea	x				x	51 500	
TR3	x				Norwegian Sea	x				x	8 000	
TR1	x				Norwegian Sea	x				x	8 000	
TR4			x		Norwegian Sea						733	
TR4			x		Norwegian Sea						145	
TR4			x		Norwegian Sea						1 105	

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			dredging operation type		(in metric tonnes) dry weight	notes
						Harbour	Estuary	Sea	capital	maintenance		
TR5			x		Norwegian Sea						300	
Total											1 580 596	

Portugal											
P/1	x				Póvoa de Varzim	x				x	80 000
P/2	x				Vila do Conde	x				x	80 000
P/3	x				Figueira da Foz	x				x	117 000
P/4	x				Figueira da Foz	x				x	110 000
P/5	x				Figueira da Foz	x				x	1 794 250
P/6	x				Figueira da Foz	x				x	500 000
P/7	x				Figueira da Foz	x				x	225 000
P/8	x				Nazaré	x				x	211 568
P/9	x				Lisboa		x			x	250 000
P/10	x				Lisboa		x			x	1 062 500
P/11	x				Seixal		x			x	28 410
P/12	x				Seixal		x			x	33 102
P/13	x				Sesimbra	x				x	5 000
P/14	x				Setúbal	x				x	14 455
P/15	x				Tavira	x				x	17 500
P/16	x				Tavira	x				x	12 500
P/17	x				Açores	x				x	7 500
P/17		x			Açores	x				x	15 000
P/18	x				Açores	x				x	
P/18		x			Açores	x				x	
Total											7 607 732

Spain											
E/2C	x				Ondarroa		x			x	8 204
E/3B	x				Laredo	x				x	36 317
E/3B	x				Colindres		x			x	12 259
E/3B	x				Santoña	x				x	3 596
E/3C	x				Suances		x			x	58 284
E/3D	x				San Vicente de la Barquera	x				x	32 078
E/4B	x				Llanes		x			x	20 550
E/5	x				Avilés		x			x	493 581
E/5B	x				San Esteban de Pravia		x			x	357 788
E/5B	x				San Juan de la Arena		x			x	24 500
E/5C	x				Navia		x			x	157 500
E/5D	x				Luarca	x				x	2 800
E/5E	x				Puerto de Vega	x				x	525

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			dredging operation type		(in metric tonnes) dry weight	
						Harbour	Estuary	Sea	capital	maintenance		
E/5F	x				Figueras		x			x	100 941	
E/5G	x				Viavélez	x				x	23 625	
E/8	x				Vilagarcía	x			x		109 013	
E/8	x				O Grove	x				x	19 212	
E/8	x				Meloxo	x				x	22 750	
E/9B	x				Marín / Pontevedra	x			x		30 422	
E/11	x				Sevilla		x			x	218 662	
E/12	x				Cádiz	x			x		276 741	
Total											2 009 344	

Sweden

SWE/11 (Vinga)	x				Göteborg, Kattegat	x				x?	4 520	(1)
SWE/10 (Hakefjorden)	x				Göteborg, Kattegat	x				x	30	(2)
SWE/23	x				Lerkil harbour & Sandö harbour, Kattegat	x				x	7 200	(3)
SWE/24	x				Grötvik, Kattegat	x				x	1 875	(4)
SWE/14	x				Halmstad, Kattegat	x				x	33 270	(5)
SWE/25	x				Höganäs, The Sound	x				x	5 050	(6)
Total											47 425	

United Kingdom

CR010	x				Wick River		x			x	30 000	
CR019	x				Cromarty Firth	x				x	0	
CR020	x				Helmsdale River	x				x	0	
CR027	x				Beaully Firth	x				x	20 822	
CR030	x				Moray Firth	x				x	0	
CR040	x				Spey Bay/Moray Firth	x				x	3 927	
CR050	x				Grampian Coast	x				x	0	
CR110	x				Dee River	x			x		102 923	
CR110	x				Dee River	x				x	40 958	
DV010	x				Kent Coast	x		x	x		0	
DV010	x				Kent Coast	x				x	202 639	
DV011	x				Kent Coast	x				x	0	
DV040	x				Rother River and Kent Coast	x				x	29 969	
FI080	x				Shetland coast	x			x		729 600	
FO007	x				Grampian Coast	x				x	1 325	
FO010	x				South Esk River	x				x	35 105	
FO020	x				Tayside Coast	x				x	7 251	
FO028	x				Firth of Tay	x				x	46 705	
FO036	x				Firth Of Forth	x				x	8 570	
FO038	x				Firth Of Forth	x				x	18 468	

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			dredging operation type		(in metric tonnes) dry weight	notes
						Harbour	Estuary	Sea	capital	maintenance		
FO041	x				Firth Of Forth	x				x	42 763	
FO042	x				Firth Of Forth	x				x	39 169	
FO043	x				Firth Of Forth	x				x	42 873	
FO044	x				Firth Of Forth	x				x	561 553	
FO048	x				Firth Of Forth	x				x	0	
FO080	x				Tweed River	x				x	6 875	
HU015	x				Humberside Coast	x				x	2 622	
HU020	x				Humber River	x				x	44 269	
HU030	x				Humber River			x		x	628 695	
HU040	x				Humber River	x				x	1 491	
HU041	x				Humber River	x				x	3 663	
HU060	x				Humber River	x			x		236 666	
HU060	x				Humber River	x	x	x		x	3 700 435	
HU080	x				Humber River	x	x			x	0	
HU090	x				Humber River	x	x			x	240 577	
HU090	x				Humber River	x	x			x	32 678	
HU143	x				Great Ouse River	x	x			x	40 667	
HU150	x				Yare River	x	x			x	2 725	
HU170	x				Witham River	x				x	14 116	
HU199	x				Orwell River	x				x	0	
IS040	x				Anglesey Coast	x				x	25 789	
IS102	x				Dee River, Wales		x	x		x	246 139	
IS110	x				Mersey River	x	x			x	127 159	
IS120	x				Mersey River/Liverpool Bay	x		x		x	186 194	
IS128	x				Mersey River		x			x	125 957	
IS140	x				Mersey River	x	x	x		x	246 139	
IS150	x				Mersey River/Liverpool Bay	x		x		x	0	
IS170	x				Wyre River	x				x	370 936	
IS192	x				Lune River	x				x	492	
IS200	x				Morecambe Bay	x		x		x	350 916	
IS205	x				Cumbria Coast	x		x		x	736 678	
IS231	x				Cumbria Coast	x				x	0	
IS240	x				Cumbria Coast			x	x		0	
IS240	x				Cumbria Coast	x				x	27 403	
IS241	x				Cumbria Coast	x				x	17 088	
IS251	x				Cumbria Coast			x		x	11 144	
IS400	x				Douglous (IOM)	x				x	300	
IS591	x				Belfast Lough		x		x		99 312	
IS591	x				Belfast Lough		x			x	0	
IS620	x				Down Coast	x				x	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			dredging operation type		(in metric tonnes) dry weight	notes
						Harbour	Estuary	Sea	capital	maintenance		
IS650	x				Down Coast	x				x	10 540	
IS671	x				Carlingford Lough	x			x		0	
IS671	x				Carlingford Lough	x				x	22 789	
LU010	x				Camel River	x				x	188	
LU055	x				Somerset Coast	x				x	0	
LU070	x				Avon River	x	x			x	60 177	
LU080	x				Avon River	x	x			x	64 066	
LU083	x				Avon River	x	x			x	5 504	
LU084	x				Avon River	x	x			x	0	
LU085	x				Avon River	x	x			x	0	
LU086	x				Avon River	x	x			x	0	
LU110	x				Taff R./Severn Est.	x				x	166 929	
LU115	x				Severn Estuary	x				x	12 744	
LU125	x				Tawe & Neath Rivers/Swansea Bay	x				x	0	
LU130	x				Tawe & Neath Rivers/Swansea Bay	x		x	x		0	
LU130	x				Tawe & Neath Rivers/Swansea Bay	x		x		x	1 096 356	
LU140	x				Usk River	x				x	50 887	
LU145	x				Loughor River	x			x		0	
LU168	x				Milford Haven	x	x		x		0	
LU169	x				Milford Haven		x		x		186 194	
LU169	x				Milford Haven		x			x	192 289	
LU190	x				Milford Haven		x			x	2 225	
MA010	x				Loch Ryan	x				x	32 000	
MA016	x				Firth of Clyde	x	x			x	6 173	
MA021	x				Firth Of Clyde	x	x			x	0	
MA050	x				Firth Of Clyde	x				x	28 083	
NS100	x				Suffolk Coast			x	x		0	(1)
PL031	x				Tamar River & Kingsbridge Estuary	x	x			x	11 103	
PL060	x				Fowey River/Cornwall Coast South	x				x	0	
PL075	x				Falmouth Harbour/Truro River/Mounts Bay		x		x		0	
PO070	x				Teign River	x				x	0	
PO090	x				Teign River	x				x	0	
TH005	x				Waveney River	x				x	45 546	
TH034	x				Orwell River	x	x		x		0	
TH034	x				Orwell River		x			x	15 973	
TH037	x				Orwell River	x	x			x	9 298	
TH052	x				Orwell/Stour Rivers + Thames Estuary		x		x		786 909	
TH052	x				Orwell/Stour Rivers + Thames Estuary	x	x	x		x	1 807 422	
TH052	x				Orwell/Stour Rivers + Thames Estuary	x	x			x	0	
TH053	x				Orwell River	x	x			x	10 411	

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			dredging operation type		(in metric tonnes) dry weight	notes
						Harbour	Estuary	Sea	capital	maintenance		
TH056	x				Orwell River	x			x		120 896	
TH062	x				Blackwater River		x			x	820	
TH070	x				Thames Estuary			x	x		3 756	
TH070	x				Thames Estuary		x	x		x	0	
TH070	x				Thames Estuary		x			x	300	
TH073	x				Kent Coast	x				x	5 159	
TH080	x				Thames Estuary			x	x		216 316	
TH140	x				Kent Coast	x				x	40 067	
TH207	x				Orwell River	x	x			x	27 792	
TH208	x				Orwell River	x	x			x	27 437	
TH209	x				Orwell River	x	x			x	9 296	
TH211	x				Orwell River	x	x			x	66 187	
TH216	x				Orwell River	x	x			x	5 249	
TH217	x				Orwell River	x	x			x	5 249	
TH218	x				Orwell River	x	x			x	2 437	
TH219	x				Orwell River	x	x			x	2 437	
TY022	x				Coquet River	x				x	0	
TY025	x				Coquet River		x			x	0	
TY042	x				Northumberland Coast	x				x	106 585	
TY070	x				Tyne River		x		x		0	
TY070	x				Tyne River	x				x	76 621	
TY081	x				Tyne River		x		x		0	
TY081	x				Tyne River	x	x			x	52 343	
TY090	x				River Wear	x	x			x	0	
TY130	x				Durham Coast	x		x		x	18 329	
TY150	x				Tees River/Hartlepool Bay	x	x		x		0	
TY150	x				Tees River/Hartlepool Bay	x	x	x		x	0	
TY160	x				Tees River/Hartlepool Bay	x			x		188 534	
TY160	x				Tees River/Hartlepool Bay	x	x	x		x	730 487	
TY180	x				Esk River	x		x	x	x	20 942	
TY181	x				North Yorkshire Coast			x		x	0	
TY190	x				North Yorkshire Coast	x				x	1 223	
WI010	x				Ouse River (E.Sussex)	x		x		x	127 479	
WI020	x				East Sussex Coast	x				x	19 716	
WI031	x				Sussex Coast	x				x	62 572	
WI035	x				Sussex Coast			x		x	1 118	
WI045	x				Chichester Harbour	x	x			x	570	
WI046	x				Chichester Harbour	x				x	671	
WI060	x				So'ton Water, IoW, Portsmouth...	x	x		x		0	
WI060	x				So'ton Water, IoW, Portsmouth...	x	x	x		x	210 743	

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			dredging operation type		(in metric tonnes) dry weight	
						Harbour	Estuary	Sea	capital	maintenance		
WI060	x				So'ton Water, loW, Portsmouth...	x	x			x	10 484	
WI064	x				Portsmouth Harbour	x				x	0	
WI065	x				Portsmouth Harbour	x				x	105	
WI080	x				So'ton Water, loW etc.	x				x	14 375	
WI090	x				So'ton Water, loW etc.	x				x	0	
WI110	x				Poole Harbour	x			x		0	
WI110	x				Poole Harbour	x	x	x		x	10 274	
WI110	x				Poole Harbour	x	x			x	445	
WI111	x				Poole Harbour	x				x	8 836	
XX999	x				Norfolk Coast			x	x		0	(2)
IS015			x		New Quay, Wales					x	1 837	
Total											16 313 235	

Table 3b Total loads (method of determination indicated in Part II)

OSPAR-codes	in tonnes													in kilogrammes													Total CB	HCB	g- HCH	DDT	TBT	DBT	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											
Belgium																																	
B/1		1,206	0,201	26,536	93,478	19,701	50,257	27,541	141,172			41,010											0,193								0,011		
B/1		0,619	0,167	16,698	60,900	15,029	36,344	18,663	98,226			13,565											0,530								0,011		
B/1		0,048	0,016	1,264	4,818	1,548	2,764	1,501	8,609			2,021											0,021								0,004		
B/1		0,286	0,063	7,442	23,470	4,809	13,166	7,442	35,491			16,486											0,000								0,005		
B/1		0,622	0,137	16,177	51,019	10,453	28,620	16,177	77,150			35,837											0,000								0,010		
B/1		0,328	0,055	7,206	25,385	5,350	13,648	7,479	38,486			11,137											0,052								0,003		
B/3		0,028	0,005	0,611	2,153	0,454	1,158	0,634	3,264			0,945											0,004								0,000		
B/3		0,008	0,002	0,212	0,774	0,191	0,462	0,237	1,248			0,172											0,007								0,000		
B/3		0,222	0,037	4,881	17,177	3,624	9,245	5,066	26,071			7,544											0,036								0,002		
B/6		2,090	0,685	54,811	208,968	67,144	119,899	65,088	373,401			87,664											0,898								0,154		
B/6		0,737	0,199	19,877	72,491	17,889	43,261	22,215	166,921			16,147											0,631								0,013		
B/6		0,004	0,001	0,002	0,105	0,386	0,121	0,232	0,172			0,211											0,002								0,001		
B/6		0,001	0,000	0,027	0,100	0,032	0,060	0,033	0,172			0,055											0,000								0,000		
B/9		0,143	0,045	4,774	15,913	3,565	9,548	5,092	24,506			7,702											0,060								0,001		
B/9		0,005	0,001	0,139	0,579	0,163	0,343	0,179	0,979			0,245											0,000								0,000		
B/9		0,251	0,078	7,771	32,456	9,142	19,199	10,057	54,855			13,714											0,000								0,002		
B/9		0,151	0,047	5,029	16,764	3,755	10,058	5,365	25,817			8,114											0,064								0,001		
B/99		0,005	0,001	0,127	0,178	0,064	0,127	0,089	0,242			1,140											0,011								0,000		
B/99		0,013	0,003	0,322	0,451	0,161	0,322	0,225	0,612			2,883											0,028								0,000		
B/99		0,004	0,001	0,100	0,140	0,050	0,100	0,070	0,190			0,894											0,009								0,000		
B/99		0,002	0,001	0,050	0,227	0,064	0,131	0,076	0,382			0,077											0,000								0,007		
B/99		0,000	0,000	0,009	0,035	0,010	0,020	0,012	0,059			0,012											0,000								0,000		
B/int 1a		< d.l.	< d.l.	1,660	2,280	0,370	0,680	0,340	2,770			0,000											< d.l.								< d.l.		
B/int 1a		< d.l.	0,040	7,970	20,520	4,290	7,650	5,550	30,780			0,121											1,590								< d.l.		
B/int 1a		< d.l.	< d.l.	0,020	0,040	0,000	0,010	0,010	0,050			0,000											< d.l.								< d.l.		
B/int1b		< d.l.	< d.l.	2,610	3,570	0,580	1,070	0,540	4,340			0,000											< d.l.								< d.l.		
B/int1b		< d.l.	0,010	2,260	5,820	1,220	2,170	1,580	8,740			0,034											0,450								< d.l.		
B/int2c		< d.l.	0,020	3,470	8,930	1,870	3,330	2,420	13,390			0,053											0,690								< d.l.		
B/int 4		< d.l.	< d.l.	1,760	3,330	0,630	0,950	0,720	4,670			0,120											< d.l.								< d.l.		
B/int 4		< d.l.	< d.l.	0,230	0,490	0,110	0,160	0,130	0,810			0,000											< d.l.								< d.l.		
B/int 4		< d.l.	< d.l.	1,220	2,920	0,490	0,950	0,680	4,870			0,001											< d.l.								< d.l.		
B/int 4		< d.l.	0,000	1,180	3,150	0,750	0,920	0,720	5,030			0,039											< d.l.								< d.l.		
B/int 4		< d.l.	0,000	0,060	0,100	0,010	0,010	< d.l.	0,240			0,000											< d.l.								< d.l.		
B/int 7		< d.l.	< d.l.	0,150	0,290	0,050	0,080	0,060	0,400			0,010											< d.l.								< d.l.		
B/int 7		< d.l.	< d.l.	0,330	0,710	0,150	0,230	0,190	1,160			0,000											< d.l.								< d.l.		
B/int 7		< d.l.	< d.l.	0,720	1,720	0,290	0,560	0,400	2,870			0,000											< d.l.								< d.l.		
B/int 7		< d.l.	0,010	1,900	5,030	1,210	1,480	1,160	8,050			0,062											< d.l.								< d.l.		
B/int 7		< d.l.	0,000	1,960	3,180	0,420	1,460	< d.l.	7,940			0,014											0,160								< d.l.		
B/int 7		< d.l.	< d.l.	0,230	0,330	0,090	0,230	0,050	1,020			0,004											0,030								< d.l.		
B/int 8		< d.l.	0,030	0,420	0,570	0,090	0,170	0,090	0,700			0,000											< d.l.								< d.l.		
B/int 8		< d.l.	< d.l.	5,650	14,530	3,040	5,410	3,930	21,790			0,086											1,120								< d.l.		
B/int 8		< d.l.	< d.l.	6,880	9,830	1,080	4,370	1,770	13,760			0,015											< d.l.								< d.l.		
B/int 8		< d.l.	< d.l.	0,250	0,420	0,060	0,160	0,070	0,570			0,004											< d.l.								< d.l.		
B/int 8		< d.l.	< d.l.	0,690	1,300	0,250	0,370	0,280	1,830			0,047											< d.l.								< d.l.		
B/int 8		< d.l.	< d.l.	0,610	1,320	0,290	0,430	0,350	2,150			0,001											< d.l.								< d.l.		
B/int 8		< d.l.	< d.l.	1,580	3,790	0,630	1,230	0,880	6,310			0,001											< d.l.								< d.l.		
B/int 8		< d.l.	0,000	0,680	1,800	0,430	0,530	0,410	2,890			0,022											< d.l.								< d.l.		
B/int 8		< d.l.	0,000	0,700	1,100	0,300	0,650	0,240	3,000			0,008											0,080								< d.l.		
B/int 8		< d.l.	0,000	0,270	0,430	0,060	0,200	< d.l.	1,080			0,002											0,020										

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/int 1bis	0,020	0,000	0,330	0,810	0,330	0,560	0,240	2,810			0,038										NA					NA					
B/int 1bis	0,590	0,080	8,430	20,890	8,430	14,290	6,190	72,190			0,978										NA					NA					
B/int 1bis	0,550	0,060	5,730	13,960	5,730	9,310	3,760	48,860			0,623										NA					NA					
B/int 1bis	0,100	0,010	1,190	2,930	1,190	1,980	0,820	10,210			0,134										NA					NA					
B/int 1bis	0,090	0,010	1,000	2,280	0,900	1,590	0,570	6,960			0,049										NA					NA					
B/int 1bis	0,130	0,020	1,720	7,300	1,860	3,150	1,320	15,770			0,262										NA					NA					
B/int 1bis	<d.l.	0,000	0,570	1,510	0,250	0,700	0,300	3,480			0,013										NA					NA					
B/int 1bis	NA	NA	NA	NA	NA	NA	NA	NA			NA										NA					NA					
B/int12	0,000	0,000	0,050	0,100	0,040	0,070	0,030	0,340			0,002										NA					NA					
B/int12	0,000	0,000	0,050	0,110	0,040	0,080	0,030	0,350			0,002										NA					NA					
B/int12	0,780	0,130	6,200	17,310	13,680	17,090	5,980	75,000			0,625										NA					NA					
B/int12	0,030	0,000	0,450	1,110	0,450	0,760	0,330	3,830			0,052										NA					NA					
B/int12	0,070	0,010	0,740	1,800	0,740	1,200	0,490	6,310			0,080										NA					NA					
B/int12	0,000	0,000	0,050	0,110	0,050	0,080	0,030	0,390			0,005										NA					NA					
B/int12	1,890	0,280	12,850	36,290	29,930	39,600	13,110	186,210			1,812										NA					NA					
B/int12	0,340	0,050	2,040	6,920	5,050	6,830	2,290	33,310			0,290										NA					NA					
B/int12	0,120	0,020	0,910	2,610	2,010	2,890	0,920	12,590			0,163										NA					NA					
B/int 12	2,230	0,410	17,360	50,250	39,680	54,970	17,560	233,740			2,522										NA					NA					
B/int 13	0,000	0,000	0,040	0,100	0,040	0,070	0,030	0,330			0,002										NA					NA					
B/int 13	0,010	0,000	0,110	0,240	0,100	0,170	0,070	0,800			0,005										NA					NA					
B/int 13	2,640	0,430	20,950	58,520	46,240	57,800	20,230	253,580			2,113										NA					NA					
B/int 13	0,070	0,010	0,710	1,720	0,710	1,150	0,460	6,040			0,077										NA					NA					
B/int 13	0,020	0,000	0,240	0,580	0,240	0,390	0,160	2,030			0,027										NA					NA					
B/int 13	1,210	0,180	8,230	23,230	19,160	25,350	8,390	119,220			1,160										NA					NA					
B/int 13	0,110	0,020	0,690	2,350	1,710	2,320	0,780	11,310			0,099										NA					NA					
B/int 13	0,090	0,010	0,680	1,960	1,510	2,160	0,690	9,430			0,122										NA					NA					
B/int 13	1,660	0,310	12,910	37,370	29,510	40,880	13,060	173,850			1,876										NA					NA					
Total	22,11	4,29	391,79	1 173,17	448,74	765,20	353,75	2 927,15			285,32									0,00	7,15					0,23					

France																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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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/03311;F/03314;F/03315;F/03316;F/03317		0,905	0,143	14,949	33,600	20,846	31,954	20,160	142,354	NI	NI	NI	0,10	557,21	<DL	<DL	<DL	<DL	<DL	<DL	<DL	NI	NI	NI	NI	NI	<DL	<DL			
F/03307;F/03308;F/03309;F/03311		2,368	0,395	40,597	90,729	56,283	86,423	55,052	387,212	NI	NI	NI	0,33	1563,92	<DL	<DL	<DL	<DL	<DL	<DL	<DL	NI	NI	NI	NI	NI	<DL	<DL			
F/03301;F/03303;F/03305;F/03306;F/03307;F/03311		1,186	0,228	20,854	48,932	29,986	46,342	29,168	206,222	NI	NI	NI	0,15	838,85	<DL	<DL	<DL	<DL	<DL	<DL	NI	<DL	NI	NI	NI	0,016	0,007				
F/03330		<DL	<DL	0,431	1,186	0,643	1,104	0,625	4,351	NI	NI	<DL	0,00	14,10	<DL	<DL	<DL	<DL	<DL	<DL	<DL	NI	<DL	NI	NI	NI	<DL	<DL			
F/03312		0,007	0,001	0,145	0,190	0,172	0,254	0,136	0,925	NI	NI	NI	NI	NI	<DL	<DL	<DL	<DL	<DL	<DL	<DL	NI	<DL	NI	NI	NI	NI	NI			
F/06401		<DL	<DL	1,290	1,339	0,135	1,181	0,129	4,928	NI	NI	0,168	0,00	43,62	<DL	<DL	0,169	0,137	0,454	1,624	1,509	8,116	8,116	NI	NI	NI	<DL	<DL			
F/06401 – F/06403		<DL	<DL	2,237	4,400	4,132	4,656	3,547	22,316	NI	NI	0,178	0,04	120,83	<DL	<DL	<DL	<DL	0,313	0,389	0,389	6,876	6,876	NI	NI	NI	<DL	<DL			
Total		9,94	3,60	181,20	737,94	301,32	612,44	300,78	2 044,30	0,00	7,26	9,37	30,99	12 452,58	6,57	9,02	57,00	46,01	70,25	104,12	43,49	295,13	616,65	0,00	0,00	0,00	67,59	65,54			

[illegible]

Ireland																												
IRL/8	0.009	0.001	0.108	0.268	0.537	0.204		1.500	3.502	0.000	0.000	nd	nd	<LoD	<LoD	<LoD	<LoD	<LoD	<LoD	<LoD				nd		1.317	0.439	
IRL/47	0.011	0.002	0.321	0.958	0.558	0.945	0.706	3.341	6.269	0.092	0.110	nd	nd	0.000	0.000	0.000	0.000	0.000	0.000	0.000				0.000	0.000	0.007	0.034	
IRL/20	0.002	0.000	0.056	0.168	0.098	0.166	0.124	0.586	1.099	0.016	0.019	nd	nd	0.000	0.000	0.000	0.000	0.000	0.000	0.000				0.000	0.000	0.001	0.006	
IRL/36	0.014	0.002	0.312	0.682	0.448	0.513	0.704	1.579	2.882	0.009	0.013	nd	nd	<LoD	<LoD	<LoD	<LoD	<LoD	<LoD	<LoD				<LoD	<LoD	<dl	<dl	
IRL/17	0.056	0.031	1.913	7.424	6.502	10.954	4.598	35.805	5.958	0.095	0.111	nd	nd	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.352	0.062	
IRL/54	0.009	0.001	0.108	0.268	0.537	0.204	0.135	1.500	10.627	0.000	0.000	nd	nd	<LoD	<LoD	<LoD	<LoD	<LoD	<LoD	<LoD				<LoD	0.000	1.317	0.439	
Total	0.102	0.036	2.818	9.768	8.679	12.986	6.401	44.311	30.337	0.213	0.252	nd	nd	<dl	<dl	<dl	<dl	<dl	<dl	<dl	<dl	<dl	<dl	<dl	0.000	0.000	7.994	0.980

Netherlands																												
NL-6	0.220	0.090	1.800	6.500	4.851	3.900	2.800	35.210	34.784	0.177	0.331			0.800	0.800	0.800	0.800	0.800	0.800	0.800	7.100		0.600	0.000		4.000		

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			
United Kingdom																															
CR010																															
CR019																															
CR020																															
CR027				0,00174	0,047974	0,044415	0,038878	0,034211	0,155432																			0,102			
CR030																															
CR040																															
CR050																															
CR110		0,0288	0,0124	0,7987	3,0939	2,1779	2,1737	1,8485	6,8670																				2,985		
CR110			0,0027	0,2273	1,9831	0,2662	0,5686	2,2937	1,9066																				1,835		
DV010																															
DV010		0,0008	0,0390	3,5921	7,0280	2,1474	3,7482	3,6311	11,3228																				9,761	0,195	
DV011																															
DV040		0,0024	0,0043	0,5471	0,8511	0,2675	0,5471	0,4012	0,7903																				0,243	0,182	
FI080				0,7296	6,1195	1,8970	3,5659	6,3931	12,2299																				1,094		
FO007																															
FO010																															
FO020		0,0015	0,0020	0,0889	0,3238	0,1501	0,2429	0,1987	0,6294																				0,011		
FO028		0,0104	0,0080	0,5244	2,2258	1,0658	1,7814	1,4262	4,7825																				0,795		
FO036																															
FO038		0,0137	0,0163	0,2781	1,3865	1,2395	2,0237	0,8085	3,8309																				5,189		
FO041			0,0085	0,3513	2,2157	0,6187	1,0095	2,1914	2,7358		0,3332																		0,046		
FO042			0,0077	0,3204	2,0263	0,5637	0,9178	2,0103	2,4953		0,3065																		0,041		
FO043			0,0087	0,3551	2,2282	0,6268	1,0270	2,1904	2,7657		0,3312																		0,047		
FO044			0,4490	8,1460	39,1527	23,1050	35,9106	18,7820	74,1858																				11,883		
FO048																															
FO080		0,0010	0,0006	0,0224	0,1387	0,0945	0,1211	0,0986	0,3092																				0,192		
HU015		0,0003	0,0003	0,0341	0,0813	0,0629	0,1101	0,0655	0,2097																				0,407	0,005	
HU020		0,0126	0,0160	1,1439	2,9741	1,9446	4,0037	1,7159	8,9224																				17,616	2,059	
HU030		0,1787	0,2274	16,2454	42,2379	27,6171	56,8588	24,3680	126,7138																				250,179	29,242	
HU040		0,0022	0,0008	0,0406	0,1453	0,1994	0,1994	0,0879	0,4935	4,1270	0,0113	0,0326																0,426	0,03		
HU041		0,0055	0,0021	0,0997	0,3571	0,4900	0,4900	0,2159	1,2125	10,1404	0,0278	0,0801																	1,046	0,075	
HU060		0,0550	0,0362	6,2901	12,1871	7,0764	12,9734	8,6489	31,0575	176,4773	0,6642	2,5505																	2,752	0,393	
HU060		1,8331	0,8921	113,5721	299,4160	173,4528	329,5030	154,0770	808,2522	1878,8962	4,8199	17,0137																	275,354	19,417	
HU080																															
HU090		0,1175	0,0504	6,5459	19,5819	10,1266	22,9388	10,0707	52,5913																					24,058	1,119
HU090		0,0098	0,0074	1,0893	3,0303	1,3956	3,6364	1,7527	7,1335																					0,246	0,164
HU143		0,0035	0,0028	0,5048	1,0517	0,4557	1,5706	0,6240	2,8677																					0,175	0,07
HU150		0,0002	0,0002	0,0379	0,0389	0,0353	0,0567	0,0271	0,1507																						
HU170		0,0077	0,0017	0,2779	0,5779	0,4128	0,7430	0,3852	2,9443																					1,679	0,771
HU199																															
IS040		0,0027	0,0027	0,2525	0,8552	0,5267	0,8534	0,6273	2,3942																					0,27	
IS102		0,0194	1,7761	0,6509	0,0194	1,2476	3,2358	12,6802	3,1916	0,0000	0,0000	0,0000	0,00	0,00	0	0,00	0	0	0	0	0	0	0	0	0	0	0				
IS110		0,0648	0,1215	2,4679	6,4782	5,2443	8,9462	2,7764	30,2318	72,1129	0,6701	1,4339																	0,308	0,617	
IS120		0,0137	0,0137	2,4957	1,3051	0,4539	2,4383	0,9332	9,4321																					0,073	0,028
IS128		0,0167	0,0167	1,0177	1,1845	0,6173	1,7183	0,7341	7,5407																					0,334	0,334
IS140		0,0194	0,0194	3,1916	1,7761	0,6509	3,2358	1,2476	12,6802																					0,134	0,087
IS150																															
IS170		0,0152	0,0424	2,5159	3,3596	1,2841	3,9833	2,6400	11,8027																					0,731	0,768
IS192		0,0001	0,0001	0,0030	0,0090	0,0045	0,0165	0,0060	0,0368	0,1188	0,0007	0,0019																		0,017	0,002
IS200		0,0172	0,0323	3,5635	3,1740	1,2411	5,4733	2,1559	10,0001																						
IS205		0,2876	0,5088	8,1742	21,2597	58,2927	139,0397	14,4902	249,7626																					22,122	22,122
IS231																															
IS240																															
IS240		0,0045	0,0025	0,5782	0,8296	0,4676	1,1414	0,5631	2,1470																						
IS241		0,0028	0,0016	0,3606	0,5173	0,2916	0,7117	0,3512	1,3388																						
IS251		0,0035	0,0004	0,1475	0,4291	0,2368	0,6659	0,3148	1,4878	8,8709	0,0319	0,1061				0,005	0,01	0,01	0,008	0,01	0,01	0,005	0,033	0,05					0,747	0,05	
IS400		0,0002	0,0001	0,0058	0,0121	0,0387	0,0552	0,0076	0,0984																						
IS591		0,2048	0,0717	1,9658	10,2384	10,8527	11,6718	8,3955	22,1149																						
IS591																															
IS620																															
IS650		0,0098	0,0016	0,1812	2,3056	1,7712	1,5745	1,2109	5,5019																						
IS671																															
IS671		0,0142	0,0075	0,6531	2,5306	0,9831	2,3744	1,4126	5,5722																						
LU010		0,0000	0,0000	0,0064	0,0041	0,0068	0,0060	0,0038	0,0173																					0,008	0,001
LU055																															

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	
LU083		0,0022	0,0019	0,0965	0,3254	0,1587	0,3491	0,2081	1,3070	1,8288	0,0401	0,0684			0,031	0,01	0,013	0,015	0,027	0,025	0,022	0,145	0,334							
LU084																														
LU085																														
LU086																														
LU110		0,0467	0,0621	2,9795	8,3456	5,1165	11,6109	6,7535	43,5596	47,1172	0,6988	1,4135			1,15	0,48	0,455	0,525	0,834	0,733	0,638	7,816	18,744					1,276	0,284	
LU115		0,0034	0,0041	0,2295	0,6630	0,3889	1,1856	0,5738	3,0018	4,6658	0,0487	0,1102			0,083	0,03	0,033	0,039	0,064	0,055	0,048	0,356	0,847							
LU125																														
LU130																														
LU130		0,2877	0,2308	18,6997	38,9272	24,9885	46,1291	33,7877	200,7535	298,5708	4,0091	7,7634			3,676	1,43	1,545	1,842	2,642	2,414	2,007	15,555	37,216							
LU140		0,0194	0,0139	0,8181	2,9395	1,6500	5,2273	2,2878	13,9765	20,0358	0,2269	0,4895																		
LU145																														
LU168		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,00	0,00	0	0,00	0	0	0	0	0	0	0	0						
LU169		0,0137	1,3051	0,4539	0,0137	0,9332	2,4383	9,4321	2,4957	0,0000	0,0000	0,0000	0,00	0,00	0	0,00	0	0	0	0	0	0	0	0						
LU169		0,0144	1,3467	0,4569	0,0144	0,9379	2,5251	9,8598	2,6213	0,0000	0,0000	0,0000	0,00	0,00	0	0,00	0	0	0	0	0	0	0	0						
LU190		0,0004	0,0004	0,0334	0,0801	0,0623	0,1158	0,0668	0,3206																					
MA010				0,2628	1,7344	0,7916	0,6720	1,9532	0,2548																				0,031	0,26
MA016				0,0363	0,1046	0,0988	0,1300	0,1228	0,5284																				0,304	
MA021																														
MA050																														
NS100																														
PL031		0,0043	0,0115	0,7144	0,3731	2,1442	1,4968	0,3551	2,7944	4,2019	0,0428	0,0737			0,007	0,96	1,3	0,926	0,612	0,859	0,111	4,779	9,689					0,994	0,034	
PL060																														
PL075																														
PO070																														
PO090																														
TH005		0,0132	0,0103	0,9697	1,3003	3,5262	2,9238	1,1357	6,4058																				8,815	10,285
TH034																														
TH034		0,0099	0,0046	0,4183	1,3158	1,8102	1,8483	0,7454	4,5636	18,6879	0,1247	0,2864			0,016	0,01	0,022	0,021	0,025	0,024	0,016	0,136	0,041					1,521	0,761	
TH037		0,0010	0,0012	0,1761	0,3487	0,2407	0,2999	0,2713	0,7371																					
TH052		0,0751	0,0777	10,5916	33,3899	16,1652	21,0611	24,9449	64,8362	65,8463	0,2518	0,9258			0,175	0,18	0,175	0,187	0,187	0,175	0,175	0,25	0,262					78,796	7,118	
TH052		0,1640	0,6232	23,9459	29,8503	21,3217	45,9236	36,0828	114,8090																				13,121	9,84
TH052																														
TH053		0,0011	0,0014	0,1972	0,3905	0,2695	0,3358	0,3038	0,8254																					
TH056		0,0115	0,0119	1,6272	5,1298	2,4835	3,2357	3,8324	0,0121	10,1162	0,0387	0,1422			0,027	0,03	0,027	0,029	0,029	0,027	0,027	0,038	0,04					12,106	1,094	
TH062		0,0003	0,0002	0,0108	0,0283	0,0465	0,0248	0,0209	0,0923																				0,075	0,005
TH070		0,0003	0,0001	0,0487	0,0463	0,0092	0,0217	0,0246	0,0714	0,1158	0,0008	0,0018																	0,01	0,004
TH070																														
TH070		0,0001	0,0000	0,0089	0,0157	0,0014	0,0044	0,0211	0,0170																				0,003	
TH073		0,0011	0,0009	0,0961	0,2946	0,2074	0,1796	0,1909	0,7612																					
TH080		0,0167	0,0056	2,8046	2,6658	0,5276	1,2496	1,4162	4,1097	6,6714	0,0474	0,1044			0,055	0,06	0,055	0,055	0,055	0,055	0,055							0,555	0,277	
TH140		0,0068	0,0077	0,8507	1,6163	1,3611	1,4462	0,8507	4,1684																				2,552	0,17
TH207		0,0029	0,0037	0,5264	1,0424	0,7195	0,8964	0,8109	2,2035																					
TH208		0,0029	0,0036	0,5196	1,0291	0,7103	0,8850	0,8005	2,1753																					
TH209		0,0010	0,0012	0,1761	0,3487	0,2407	0,2998	0,2712	0,7370																					
TH211		0,0070	0,0088	1,2535	2,4825	1,7135	2,1348	1,9312	5,2476																					
TH216		0,0006	0,0007	0,0994	0,1969	0,1359	0,1693	0,1532	0,4162																					
TH217		0,0006	0,0007	0,0994	0,1969	0,1359	0,1693	0,1532	0,4162																					
TH218		0,0003	0,0003	0,0462	0,0914	0,0631	0,0786	0,0711	0,1932																					
TH219		0,0003	0,0003	0,0462	0,0914	0,0631	0,0786	0,0711	0,1932																					
TY022																														
TY025																														
TY042		0,0225	0,0169	1,9328	2,5333	2,9273	5,8172	2,4207	10,3208	337,7700	1,1732	6,7954			0,131	0,08	0,113		0,15	0,15	0,075	0,676	1,576					1,877	0,563	
TY070																														
TY070		0,1030	0,0365	1,7060	3,2122	4,5573	12,3001	2,4658	30,6438	274,9506	0,4965	2,4000										0,456	1,039					8,221	1,584	
TY081																														
TY081		0,0734	0,0254	1,1983	2,2469	3,1597	8,6722	1,7215	21,4871	209,3039	0,3779	1,8270										0,347	0,791					5,708	1,098	
TY090																														
TY130		0,0090	0,0014	0,2336	0,4944	0,5984	1,0552	0,3932	1,7809																				1,446	0,289
TY150																														
TY150																														
TY160		0,0764	0,0970	4,5300	13,3802	9,9819	15,6819	6,7944	27,6988	0,8790	0,0125	0,0344																	3,688	0,905
TY160		0,8203	0,9683	23,3215	72,9796	73,3449	187,8599	27,8486	268,1277	1498,5934	11,9695	43,7101			0,309	0,31	0,463	0,309	0,463		0,618	9,051	8,716					68,555	140,681	
TY180		0,0031	0,0020	0,4257	0,6678																									

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	
WI045		0,0001	0,0001	0,0128	0,0219	0,0247	0,0177	0,0128	0,0594														0,001						0,005	0,003
WI046		0,0002	0,0015	0,0111	0,0323	0,1193	0,0294	0,0156	0,1065								0,001	0,001	0,001	0,001		0,006	0,012				0,006	0,122	0,038	
WI060																														
WI060		0,0227	0,0278	4,1449	7,6300	8,6491	6,7061	4,4938	21,3895	112,6666	0,4436	0,8328			0,077	0,14	0,086	0,055	0,156	0,16	0,112	1,331	0,899					42,22	7,568	
WI060		0,0008	0,0004	0,1565	0,2665	0,0834	0,1190	0,1397	0,4877	0,7001	0,0006	0,0016			0,002	0,00			0,027			0,005	0,013					0,889		
WI064																														
WI065		0,0000	0,0001	0,0015	0,0017	0,0047	0,0071	0,0023	0,0130																				0,019	0,004
WI080		0,0037	0,0036	0,4330	0,9058	0,9176	0,7838	0,4641	2,7539	0,6757	0,0023	0,0048																0,818	0,191	
WI090																														
WI110																														
WI110		0,0040	0,0024	0,1085	0,2461	0,3000	0,3189	0,1317	0,9615	0,2832	0,0016	0,0031					0,001	0,001	0,001	0,001		0,008	0,004					0,801	0,079	
WI110		0,0004	0,0003	0,0095	0,0182	0,0717	0,0333	0,0189	0,2510																				0,135	0,045
WI111		0,0005	0,0002	0,0419	0,0638	0,0362	0,0507	0,0320	0,1900	0,7271	0,0030	0,0095					0,001	0,002	0,001	0,001	0,002	0,013	0,007					0,088	0,035	
XX999																														
ISO15																														
Total		4,908	9,395	302,114	757,907	546,489	1079,394	488,535	2453,806	5112,723	27,171	89,811			6,445	3,996	4,590	4,347	5,893	5,258	4,408	44,284					0,006	895,174	262,448	

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 Iceland

The following sites were used in 2007 but not in 2008: IS 18, IS 21, IS 22 and IS 25.

The following sites were not used in 2007, but used in 2008:
IS 6, IS 8, IS 13, IS 27, IS 35, IS 39, IS 46 and IS 50.

2.1.2 France

New deposit sites in 2008:

- F/01409
- F/03327, F/03328, F/00330, F/03336

Closing of existing deposit sites in 2008 or sites whose permit is outdated:

- F/05004
- F/08501, F/03323, F/03324, F/03333, F/03334
- F/04001

2.1.3 Germany

The following new deposit site is notified for the first time by the Federal German State Niedersachsen:

- **“Cuxhaven harbour”** (new OSPAR-Code **D/119**)

At this deposit site sediments are dredged and relocated within the same area by water injection. The coordinates of the transition of the harbour to the River Elbe are taken as the position of the deposit site.

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

- **“km 690, Elbe estuary”** (new OSPAR-Code **D/120**)
- **“Flushing pipe Kiel Canal, Elbe km 696”** (new OSPAR-Code **D/121**)

In three areas granite boulders were dumped by Greenpeace illegally:

- **“Location 1”**, (new OSPAR-Code **D/122**)
- **“Location 2”**, (new OSPAR-Code **D/123**)
- **“Location 3”**, (new OSPAR-Code **D/124**)

new OSPAR code	deposit sites
D/119	Cuxhaven harbour
D/120	km 690,3, Elbe estuary
D/121	Flushing pipe Kiel Canal, Elbe km 696
D/122	Location 1
D/123	Location 2
D/124	Location 3

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/119	53°52,26'	8°42,78'						
D/120	53°52'40,82"	9°15'14,96"	53°52'27,45"	9°16'8,25"	53°52'24,38"	9°16'6,4"	53°52'37,47"	9°16'7,49"
D/121	53°53,24'	9°08,20'						
D/122	54° 45.8' N	007° 11.1' E	54° 44.4' N	007° 18.7' E	54° 39.9' N	007° 14.5' E	54° 40.5' N	007° 10.5' E
D/123	54° 47.3' N	007° 13.1' E	54° 44.0' N	007° 19.9' E	54° 54.2' N	007° 13.1' E	54° 52.9' N	007° 17.7' E
D/124	54° 40.1' N	007° 20.1' E	54° 42.4' N	007° 21.8' E	54° 44.3' N	007° 19.2' E	54° 41.8' N	007° 16.6' E

2.1.4 Norway

Number of deposit sites per county in Norway for 2007 in the OSPAR Convention area:

Number	County	Dredged material	Dredged amounts	Inert material	Amounts	Other waste	Amounts
1	Østfold (OS)	14	102 750				
2	Akershus/Oslo (AO)	0					
3	Vestfold (VE)	32	41 952				
4	Buskerud (BU)	2	9,28				
5	Telemark (TE)	0					
6	Aust-Agder (AA)	0					
7	Vest-Agder (VA)	8	280 480				
8	Rogaland (RO)	0					
9	Hordaland (HO)	2	427 260				
10	Sogn og Fjordane (SF)	3	132 050	2	136 000		
11	Møre og Romsdal (MR)	6	27 726	2	65 750		
12	Sør-Trøndelag (ST)	4	174 240	1	17 600		
13	Nord-Trøndelag (NT)	4	5 5524				
14	Nordland (NO)	6	30 322			3	1150
15	Troms (TR)	4	91 500			4	2283
16	Finnmark (FI)	0					
Total		85	1 363 813 (tonnes)	5		7	3433 tonnes fish waste

2.1.5 Spain

In 2007, the deposit site name *Baiona* (E/9C) corresponds to the dumping site with the OSPAR code E/8 thus the code E/9C should be removed and *Baiona* should be assigned to the code E/8.

The dumping site *Vigo* (E/9) should be removed because it is a dumping site located inside the Vigo harbour.

The table below includes the OSPAR codes for new sites with its geographical coordinates and updated the information of sites used in 2007.

Geographical coordinates (WGS 84) for Spanish deposit sites

Name	OSCOM Code	Longitude	Latitude
Ondarroa	E/2C	2° 20' W	43° 24' N
Laredo	E/3B	3° 24,1' W	43° 27,7' 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
Llanes	E/4B	4° 44,384' W	43° 25,235' 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
Luarca	E/5D	6° 30' W	43° 34,15' N
Puerto de Vega	E/5E	6° 38' W	43° 34,5' N
Figueras	E/5F	7° 2' W	43° 35' N
Viavélez	E/5G	6° 50,16' W	43° 34,50' N
Vilagarcía	E/8	9° 02' W	42° 25' N
Meloxo	E/8	9° 02' W	42° 25' N

O Grove	E/8	9° 02' W	42° 25' N
Marín-Pontevedra	E/9B	8° 54,56' W	42° 17' N
Sevilla	E/11	6° 29,3' W	36° 46,15' N
Cádiz	E/12	6° 24' 30" W	36° 30' 30" N

2.1.6 Sweden

Two dumping sites have not been previously reported:

SWE/21 N 57° 19,29', E 12° 02,05

SWE/22 N 56° 42,5', E 12° 25,0'

Locations of Swedish dumping sites in the OSPAR Area, 2008

All coordinates are in WGS84

Code	Dumping place	Latitude N		Longitude E		Depth (m)	
SWE/1	Stora Björkholmen	58° 55,8054'	58,93033	11° 9,7626'	11,16278		
SWE/2	Stora Borgen	58° 37,241'	58,62068	11° 11,606'	11,19343		
	Ösöfjorden	58° 27,2081'	58,45347	11° 16,0372'	11,00682		
SWE/3	Bohus Malmön	58° 21,0744'	58,35124	11° 21,1308'	11,35218		
	Byfjorden	58° 20,1418'	58,33570	11° 52,4204'	11,87367		
SWE/4	Northern harbour, Lysekil	58° 16,7473'	58,27912	11° 25,647'	11,42441		
	Bårholmen	58° 15,0925'	58,25154	11° 39,9500'	11,66583		
	Almön / Källön	58° 3,4170'	58,05695	11° 46,7222'	11,77870		
SWE/5	Koljöfjorden	58° 13,87054'	58,2312	11° 34,64493'	11,5774		
SWE/6	Räbbehuvud	58° 2,0504'	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'	57,83356	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'	11,67389		
SWE/10	Hakefjorden	57° 40,03'	57,6672	11° 45,21'	11,7535	5-10	
SWE/16		57° 39'	57,650	11° 40'	11,667		
SWE/11	Vinga	57° 36,64'	57,6107	11° 34,88'	11,5813	45	
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° 15,855'	57,26425	12° 3,907'	12,06512		
SWE/12		57° 4,747'	57,07912	12° 9,232'	12,15386		
SWE/13		56° 51'	56,850	12° 20,5'	12,342	22	
SWE/22		56° 42,5'	56,70833	12° 25,0'	12,41667	>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'	56,56667	12° 27'	12,45000	30	
SWE/14		56° 33,802'	56,56336	12° 27,089'	12,45149		
SWE/20		56° 28'	56,467	12° 50'	12,833	14	
SWE/18		56° 15,20'	56,253	12° 41,80'	12,697		

2.1.7 United Kingdom

New disposal sites this year are:

<i>Disposal Site Code</i>	<i>Disposal Site</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Site Shape</i>
TH216	COPPERAS TRACK	51.9489	1.1889	LINE
TH216	COPPERAS TRACK	51.9476	1.2106	LINE
TH216	COPPERAS TRACK	51.9488	1.2325	LINE
TH217	ERWARTON TRACK	51.9532	1.232	LINE
TH217	ERWARTON TRACK	51.954	1.2428	LINE
TH217	ERWARTON TRACK	51.9533	1.2537	LINE
TH218	ORWELL WEST TRACK	51.9713	1.2736	LINE
TH218	ORWELL WEST TRACK	51.9747	1.2736	LINE
TH218	ORWELL WEST TRACK	51.9786	1.2743	LINE
TH219	ORWELL EAST TRACK	51.9784	1.2788	LINE
TH219	ORWELL EAST TRACK	51.9748	1.2785	LINE
TH219	ORWELL EAST TRACK	51.9712	1.2789	LINE

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).

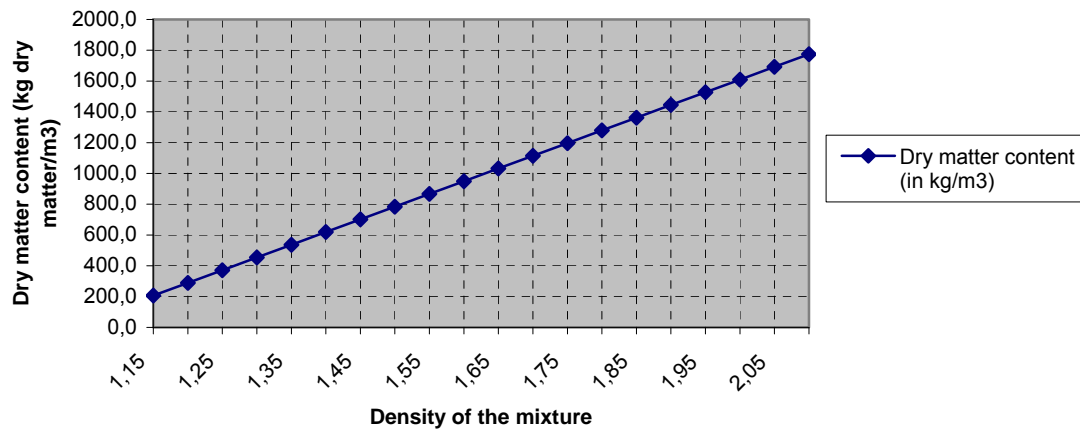
Assuming that $\rho_{ss} = 2\,600 \text{ kg/m}^3$ and $\rho_o = 1\,025 \text{ kg/m}^3$, the following simplified formula is obtained:

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

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) In some instances the material dumped at a particular site can comprise sediment dredged from various dredging locations. Often a contaminant may be detected in the sediment from one location

dumped at a dumpsite whilst the same contaminant from another location (dumped at the same site) is below the detection limits. In such cases the amount of the substance dumped is given as a maximum (e.g. 0,10 tonnes + <0,02 tonnes is quoted as <0,12 tonnes).

2.2.3 Ireland

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.

In some cases the material dumped at particular sites originates from more than one area. Sediment analysis is carried out by independent laboratories and consequently the limits of detection vary. The minimum limits of detection requested from laboratories are:

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.

The limits of detection achieved for sediment dumped at sea in 2008 were as follows:

	Irl 8	Irl 17	Irl 20	Irl 36	Irl 47	Irl 54
Hg (mg kg ⁻¹)	0,1	0,001	0.005	0.005	0.005	1
As (mg kg ⁻¹)	0,5	0,1	0,1	0,1	0,1	1
Cd (mg kg ⁻¹)	0,1	0,01	0,1	0,1	0,1	1
Cu (mg kg ⁻¹)	0,5	0,1	0,2	0,2	0,2	1
Pb (mg kg ⁻¹)	0,5	0,2	0,2	0,2	0,2	1
Zn (mg kg ⁻¹)	3.0	0,2	0,25	0,25	0,25	1
Cr (mg kg ⁻¹)		0,05	0,05	0,05	0,05	1
Ni (mg kg ⁻¹)	0,6	0,3	0,3	0,3	0,3	1
TBT (mg kg ⁻¹)	0.02	0,003	0,001	0,001	0,001	0,008
DBT (mg kg ⁻¹)	0.02	0,003	0,001	0,001	0,001	0,007
CB28 (ug kg ⁻¹)	5	0,1	5	0,1	5	3
CB52 (ug kg ⁻¹)	5	0,1	5	0,1	5	3
CB101 (ug kg ⁻¹)	5	0,1	5	0,1	5	3
CB118 (ug kg ⁻¹)	5	0,1	5	0,1	5	3
CB138 (ug kg ⁻¹)	5	0,1	5	0,1	5	3
CB153 (ug kg ⁻¹)	5	0,1	5	0,1	5	3
CB180 (ug kg ⁻¹)	5	0,1	5	0,1	5	3
DDE pp (ug kg ⁻¹)	20	1 - 6	5	0,1	5	1
DDT pp (ug kg ⁻¹)	20	1 - 6	5	0,1	5	1
TDE pp (ug kg ⁻¹)	20	1 - 6	5	0,1	5	1
DDT op (ug kg ⁻¹)	20	1 - 6	5	0,1	5	1
Dieldrin (ug kg ⁻¹)	20	1 - 6	5	0,1	5	1
g-HCH (ug kg ⁻¹)	20	1 - 6	5	0,1	5	1
HCB (ug kg ⁻¹)	20	1 - 6	5	0,1	5	1
PAH (ug kg ⁻¹)	80	2 - 20	5		5	1

Notes:

Units are all dry weight.

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

Heavy metals analysis

For Cd, Pb, Cu, Zn, Ni and Cu:

- Acid digestion with nitric acid in a microwave oven.
- Quantitative determination by atomic absorption spectrophotometry, in flame or in graphite chamber, depending on the sample concentration.

For As:

- Acid digestion in microwave oven with nitric acid.
- Previous reduction of the sample.
- Determination by hydride generation matched to an atomic absorption spectrophotometer.

For Hg:

- Acid digestion in microwave oven with nitric acid.
- Determination by cold steam technique matched to atomic absorption spectrophotometry.

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:

Contracting Parties responding "Yes" to this question are indicated under the respective columns with their country abbreviation.

	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;	<i>Irl, Is, F, UK</i>		<i>De, Se,</i>
(ii) periodic comparative analysis of laboratory reference materials and certified reference materials;	<i>Irl, Is, F, Se, UK</i>		<i>De</i>
(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;	<i>Irl, Is, F, Se, UK</i>		<i>De</i>

<p>a. Do the laboratories carrying out the analyses undertake:</p> <p><i>Contracting Parties responding “Yes” to this question are indicated under the respective columns with their country abbreviation.</i></p>	All	None	Some
<p>(iv) periodic participation in interlaboratory comparison exercises, including, where possible, international comparison exercises;</p>	<p><i>Irl, Is, F (at least yearly), Se, UK</i></p>		<p><i>De</i></p>
<p>(v) periodic participation in national and, where possible, international laboratory proficiency schemes, under which:</p> <ul style="list-style-type: none"> • 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. 	<p><i>Irl, F (only in national comparison exercises), UK</i></p>		<p><i>De</i></p>

- 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: All analyses were carried out by UK Environment Agency National Laboratory Service, which takes part in the QUASIMEME Laboratory Proficiency Scheme for sediment analysis.

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

2.5 Other relevant information

2.5.1 France

54 deposit sites were used in 2008 (among 88 issued).

3. Footnotes to all tables

3.1 Table 1

3.1.1 Belgium

- (1) 8 permits were issued for maintenance dredging, validity: 01.04.08 – 31.12.09, tonnes licensed for these 8 permits: 28 400 000 TDS per year.
- (2) 3 permits were issued for capital dredging; 2 of the permits are valid from 15.09.08 – 30.06.09; 1 of the permits is valid from 15.09.08 – 31.12.09. The total amounts licensed for the first two permits are 2 380 000 TDS (this for the whole duration of the permit). The total amount licensed for the third one is 300000 TDS (this again is for the whole duration of the permit)

3.1.1 France

One permit can be issued for one or several deposit sites

- (1) 39 used in 2008 among the 75 valid permits.
- (2) tonnes licensed represent the total amount licensed during the whole period of validity of the permit (most of the permits are granted for 5 or 10 years).

3.1.2 Germany

- (1) Permits for dredging/disposing of dredged material are issued by the competent authorities of the Federal States.
- (2) Regulation by other means: 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/LP requirements. Three deposit sites are notified for the first time.
- (3) This quantity refers to silt.
- (4) This quantity refers to sand.
- (5) Additionally three areas are reported where Greenpeace dumped granite boulders illegally.

3.1.3 Ireland

- (1) Nine new permits were issued in 2008. Three permits were amended from earlier years for period of validity. One permit was not used. Three permits applied to plough dredging, which is not reported to OSPAR. Sediment chemistry indicated no lower or upper actions exceeded. The amount licenced was substantially more than the amount dumped. This is because most applications contained substantial amounts for contingency. Total amount licenced is calculated in wet weight, and average moisture content was taken to recalculate as dry wet.

3.1.4 Netherlands

- (1) Permits issued for dumping of dredged materials at sea are licensed in cubic metres (not metric tonnes) therefore total amounts are estimated.
- (2) Permits 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) Since early 2009 a new system of regulating the disposal of dredged material is in effect in the Netherlands. A permit is no longer required. This needs to be discussed in next OSPAR/EIHA meeting.

3.1.5 Norway

- (1) Illegal deposit of dredged material.

3.1.6 Spain

- (1) In 2008 the following new permits were issued for:
 - Ondarroa (E/2C): 2 permits
 - Figueras (E/5F): 1 permit for the period 2008-2012
 - Vilagarcía (E/8) : 1 permit
 - O Grove (E/8) : 1 permit
 - Meloxo (E/8) : 1 permit
 - Sevilla (E/11): 1 permit
 - Cádiz (E/12): 1 permit
- (2) In the following cases the disposal operations of dredging works started (and licensed) in previous years:
 - A joint permit was issued for the followings harbours: *Laredo*, *Colindres* and *Santoña* with the same dumping site (E/3B), *Suances* (E/3C) and *San Vicente de la Barquera* (E/3D) in 2006 for the period 2006-2009.
 - *Llanes* (E/4B) permit issued in 2005 for the period 2005-2009.
 - *Avilés* (E/5) permit issued in year 2005.
 - *Luarca* (E/5D) permit issued in 2005 for the period 2005-2009.
 - *Puerto de Vega* (E/5E) permit issued in 2004 for the period 2004-2008.
 - *Navia* (E/5C) permit issued in 2007 for the period 2008-2012.
 - *San Esteban de Pravia* (E/5B) permit issued in 2007 for the period 2007-2011.
 - *San Juan de la Arena* (E/5B) permit issued in 2007 for the period 2008-2012.
 - *Viavélez* (E/5G) permit issued in 2007 for the period 2007-2011.
 - *Marín/Pontevedra* (E/9B) permit issued in 2007.

3.1.7 Sweden

- (1) Ten new Swedish licenses (91 690 m³, approximately 56 200 tonnes) were issued in 2008 for the OSPAR Area. Four of these licenses (covering approximately 30 300 tonnes) are also reported to HELCOM.

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 2008 under a 3 year licence issued in December 2005 to run from 1st February 2006 to 31st January 2009 *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. 1,837 tonnes of fish waste was deposited under this licence during 2008.

3.2 Table 2

3.2.1 France

- (1) Favourable conclusions at the end of the Environmental Impact Assessment.
- (2) Site F/08508: tonnes mentioned come from 2 particular dredging sites. On that same site, others dumping operations occurred without exceeding the level 2.

3.2.2 Germany

- (1) Action levels and contaminant concentrations reported in footnotes (2), (3), (4) and (5) refer to fine-grained fraction <20 µm.
- (2) 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 program.

The average concentrations of contaminants exceeding action level 2 and the related amount of dredged material are shown in Table 2 in column (4) + (5).

- (3) dredging areas from Elbe-km 639 to 685,5
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 (4) + (5).

- (4) dredging areas from Elbe-km 685,5 to 748,0

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. There is no local source for these contaminants in the dredging area, however they originate from the upper reaches of the Elbe.

The average concentrations of contaminants exceeding action level 2 and the related amount of dredged material are shown in Table 2 in column (4) + (5).

- (5) dredging area in the harbour of Wangerooze

The average concentration of HCB exceeding action level 2 and the related amount of dredged material are shown in Table 2 in column (4) + (5). Level 2 concentrations were exceeded only marginally and the overall amount of dumped material also was low. Thus the total load of HCB disposed of was negligible.

3.2.3 Sweden

No material dumped during 2008 was considered to have exceptionally high pollutant concentrations.

3.3 Table 3 a

3.3.1 Germany

- (1) Sand, exempted from chemical analyses.
- (2) Silt.
- (3) Water injection dredging.
- (4) Illegal dumping by Greenpeace of granite boulders (320 stones each 1-3 t).

3.3.2 Netherlands

- (1) The amounts for deposit sites NL-10, 11 and 13 were not available at the time of reporting.

3.3.3 Norway

- (1) No permit, illegal deposit

3.3.4 Sweden

- (1) 11 400 m³. Dredging at three sites (Gotenius varv, Nya varvet, Risholmen). Dry weight was calculated by Göteborg Harbour. Previously used dumping site.
- (2) 40 m³. Dredging at Brevik/Vråkär. Dry weight was calculated by Göteborg Harbour. Previously used dumping site.
- (3) Two dredging sites. Estimated volumes for Lerikil harbour: 8000 m³ (clay) and for Sandö harbour: 4000 m³. Permits issued in 2004. The operations were carried out in 2006 but have not previously been reported. New dumping site.
- (4) 1250 m³ sand. Permit issued in 2005. New dumping site.
- (5) 55 450 m³ postglacial clays containing organic material. Permit issued in 2007. Previously used dumping site.
- (6) 12 630 m³ clay-gyttja. Permit issued in 2007. New dumping site.

3.3.5 United Kingdom

- (1) NS100 was a deposit site in the North Sea disposal of pipeline pre-sweep sediment.
- (2) XX999 was a site for the disposal of sediment/rock from the emplacement of monopiles.

3.4 Table 3 b

3.4.1 Germany

- (1) Sand which is exempted from analyses according to § 5.3 of the OSPAR Guidelines for the Management of Dredged Material is given as additional information in Table 3a.

3.4.2 Netherlands

- (1) The amounts for deposit sites NL-10, 11 and 13 were not available at the time of reporting.
- (2) Individual PCBs are determined but not reported since a limit is introduced for sum PCB 7.

3.4.3 Sweden

- (1) Amounts of pollutants (except for Cu) were calculated by Göteborg Harbour.
- (2) Quantification limits: Hg <0,05 mg/kg; Cd < 0,1 mg.kg. Concentrations of ΣPCB7 and TBT were below quantification levels (not stated).
- (3) Additional data: Co 0,028 tonnes, Sn 0,012 tonnes
- (4) As the sediments were considered to be homogeneous only the uppermost 5 cm was analysed. Additional data: Co 0,338 tonnes, V 1,540 tonnes, MBT 0,2 kg, DBT 0,2 kg, ΣPHA16 12 kg.
- (5) Quantification limits ΣPCB7 <0,01 mg/kg; TPhT <1 µg/kg. Additional data@ Co, 0,021 tonnes, V 0,127 kg, ΣPAH16 4,8 kg, MBT 0,07 kg, DBT 0,03 kg, TPhT < 0,005 kg

4. Legend to all tables

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

Part III - Figures

Figure 1: Locations of dumping sites in 2008

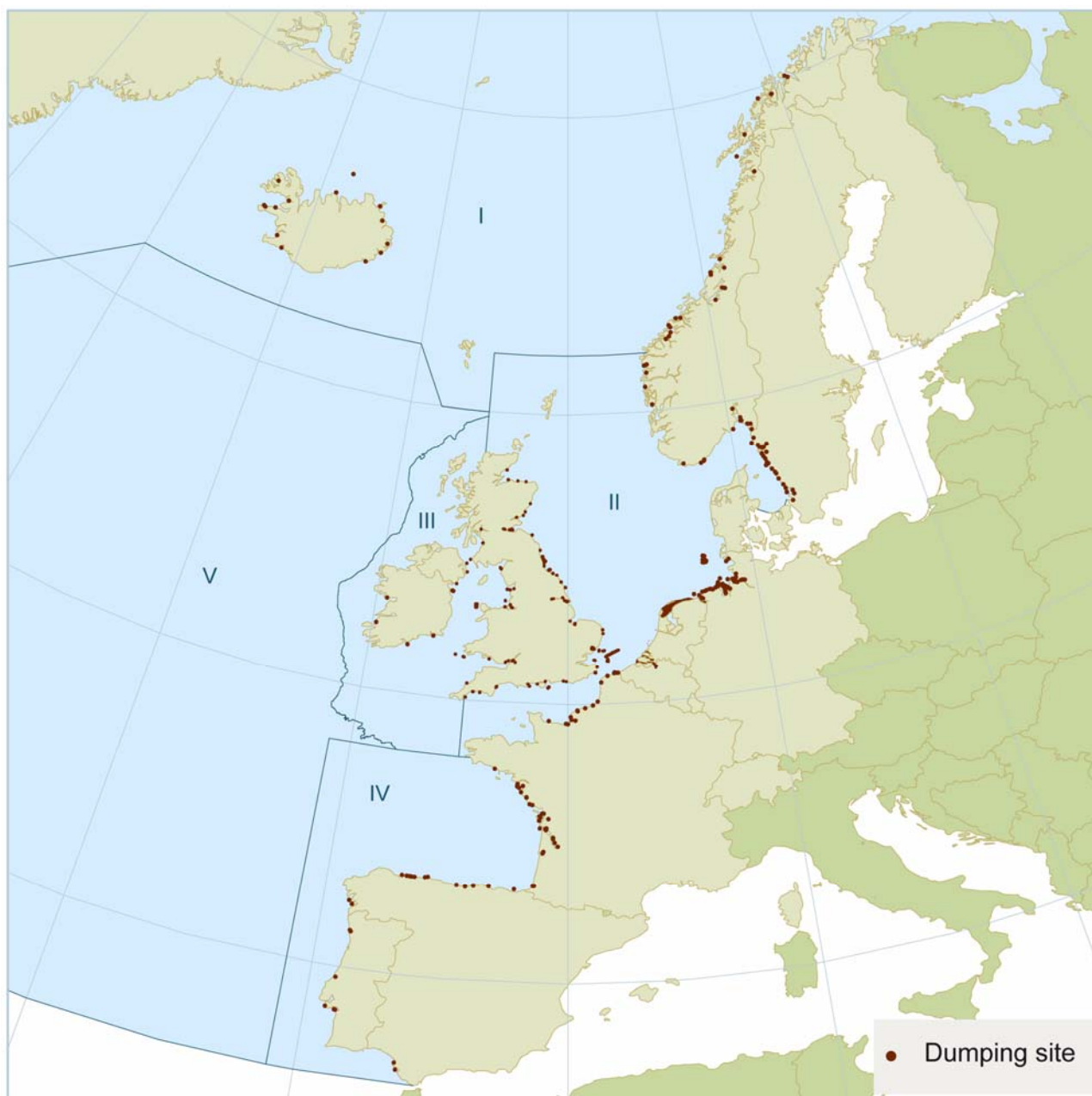


FIGURE 2a: DREDGING AND DUMPING SITES IN BELGIUM IN 2008

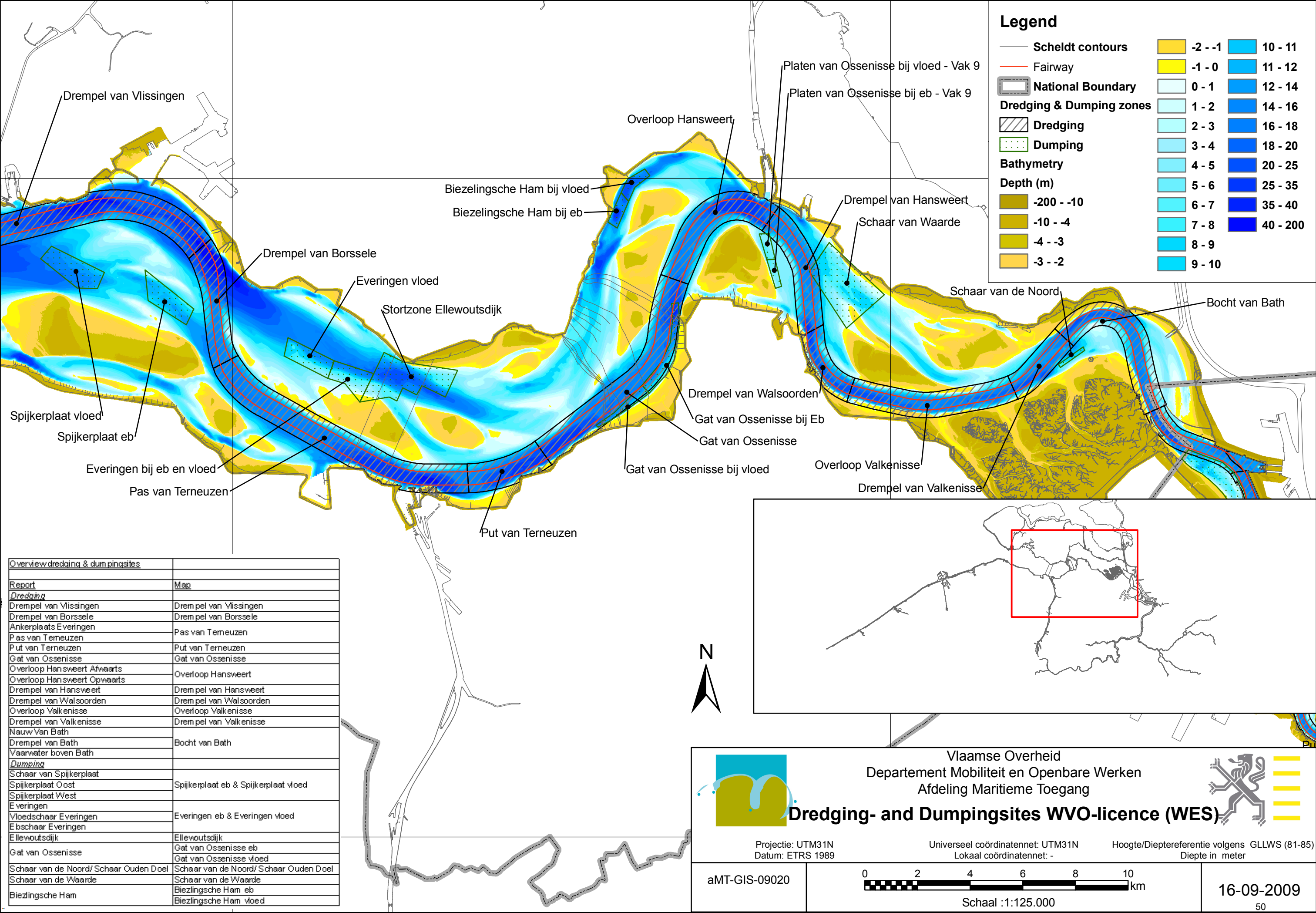


FIGURE 2b: Dredging and Dumping sites in Belgium in 2008

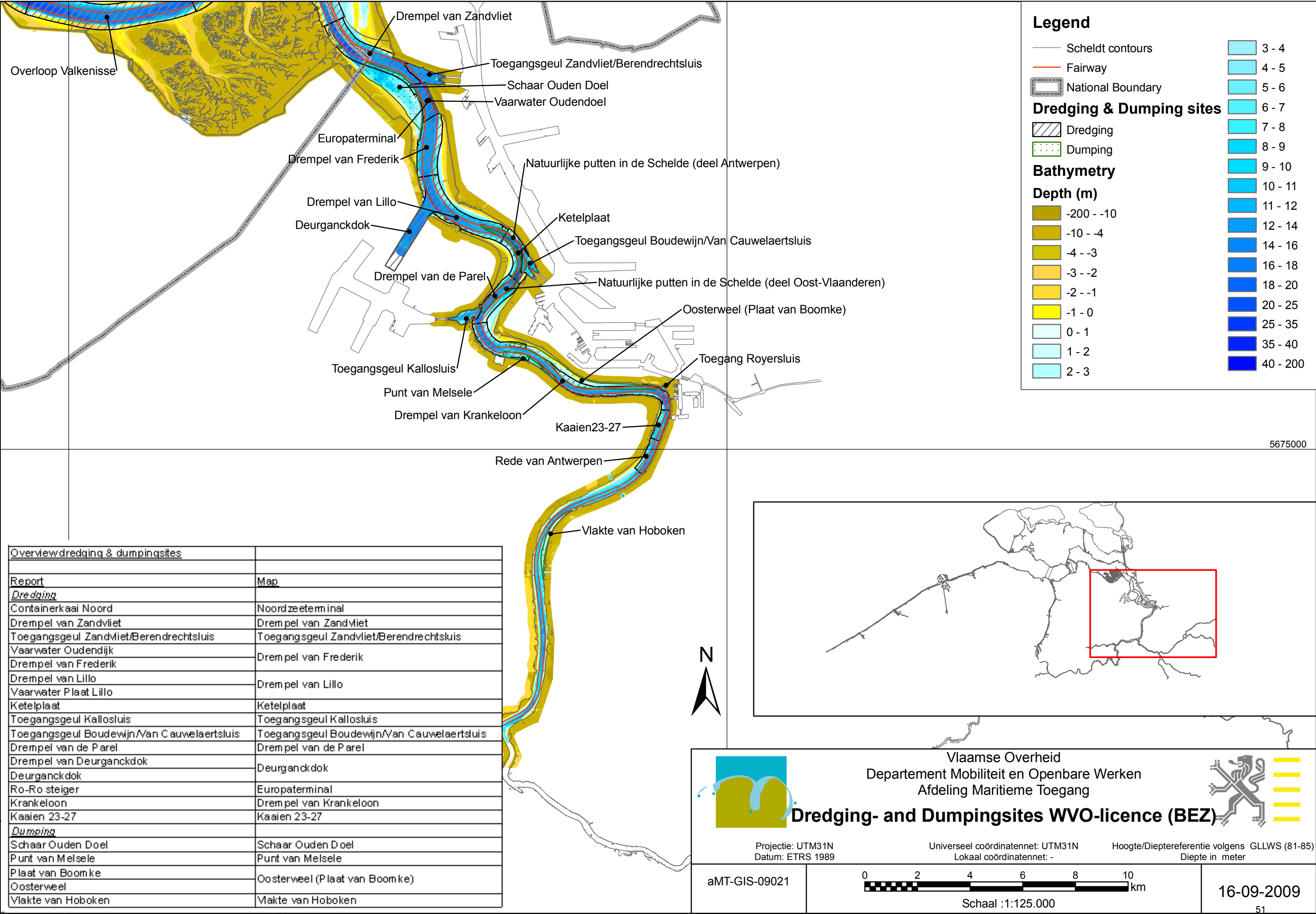


Figure 3a: Dumping sites in France in 2008 (English Channel)

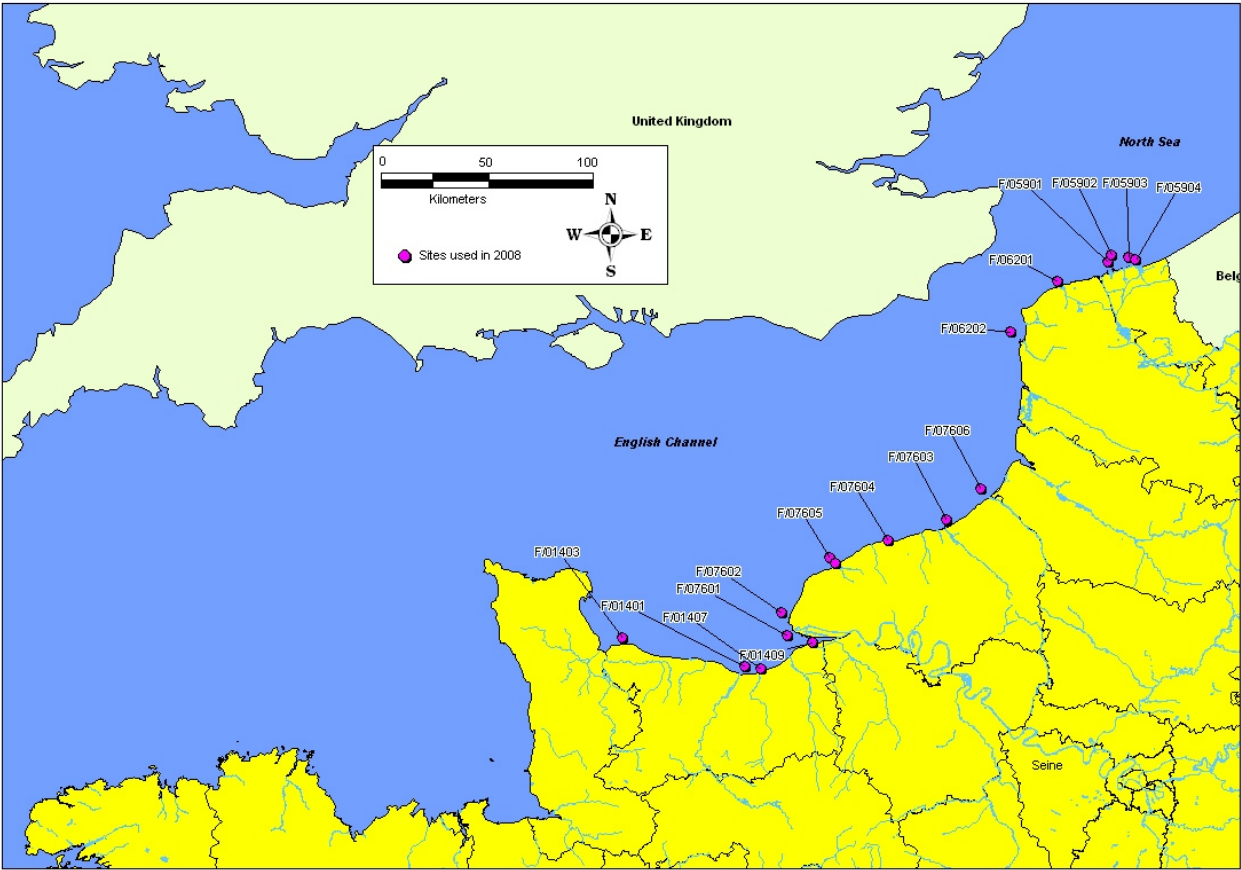


Figure 3b: Dumping sites in France in 2008 (Atlantic Ocean)

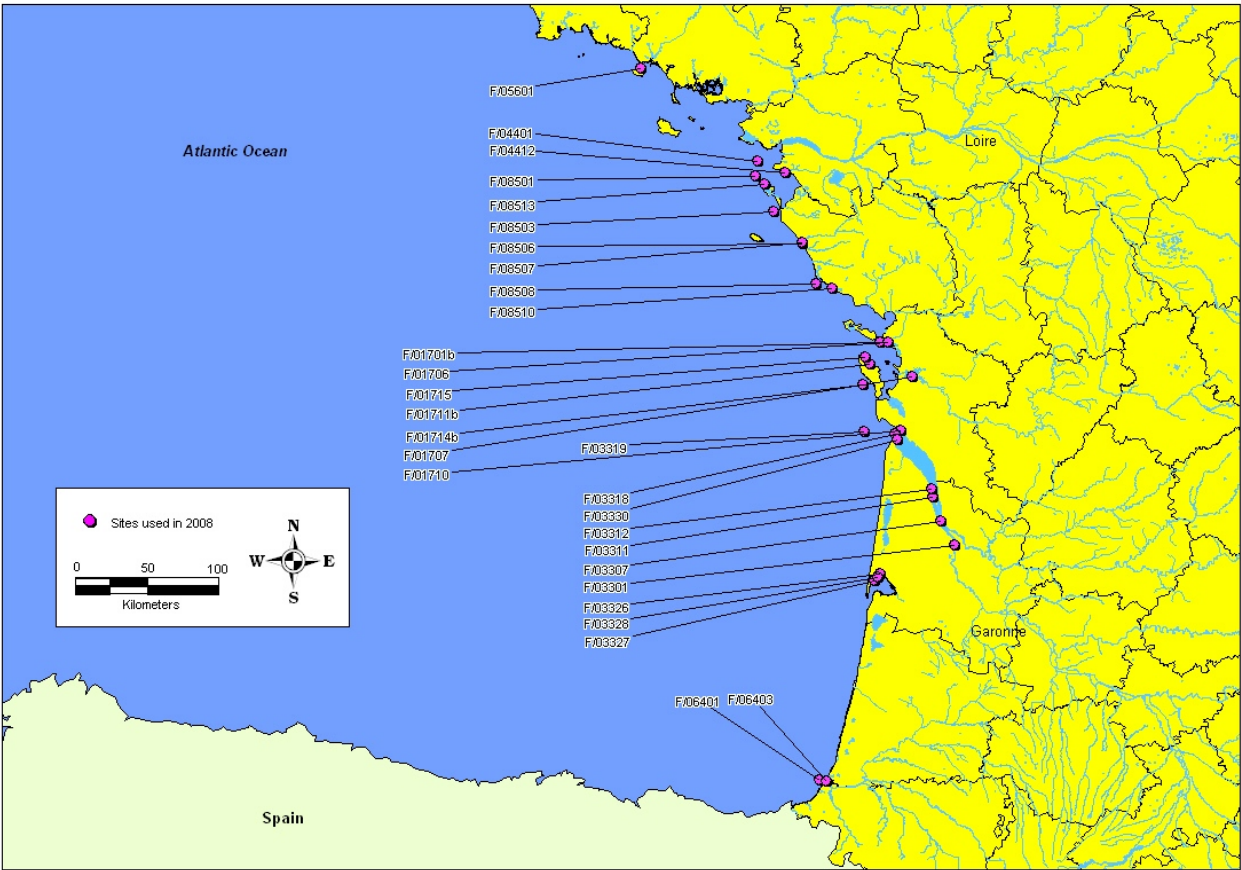


FIGURE 4a: Dumping sites of dredged material in Germany in 2008

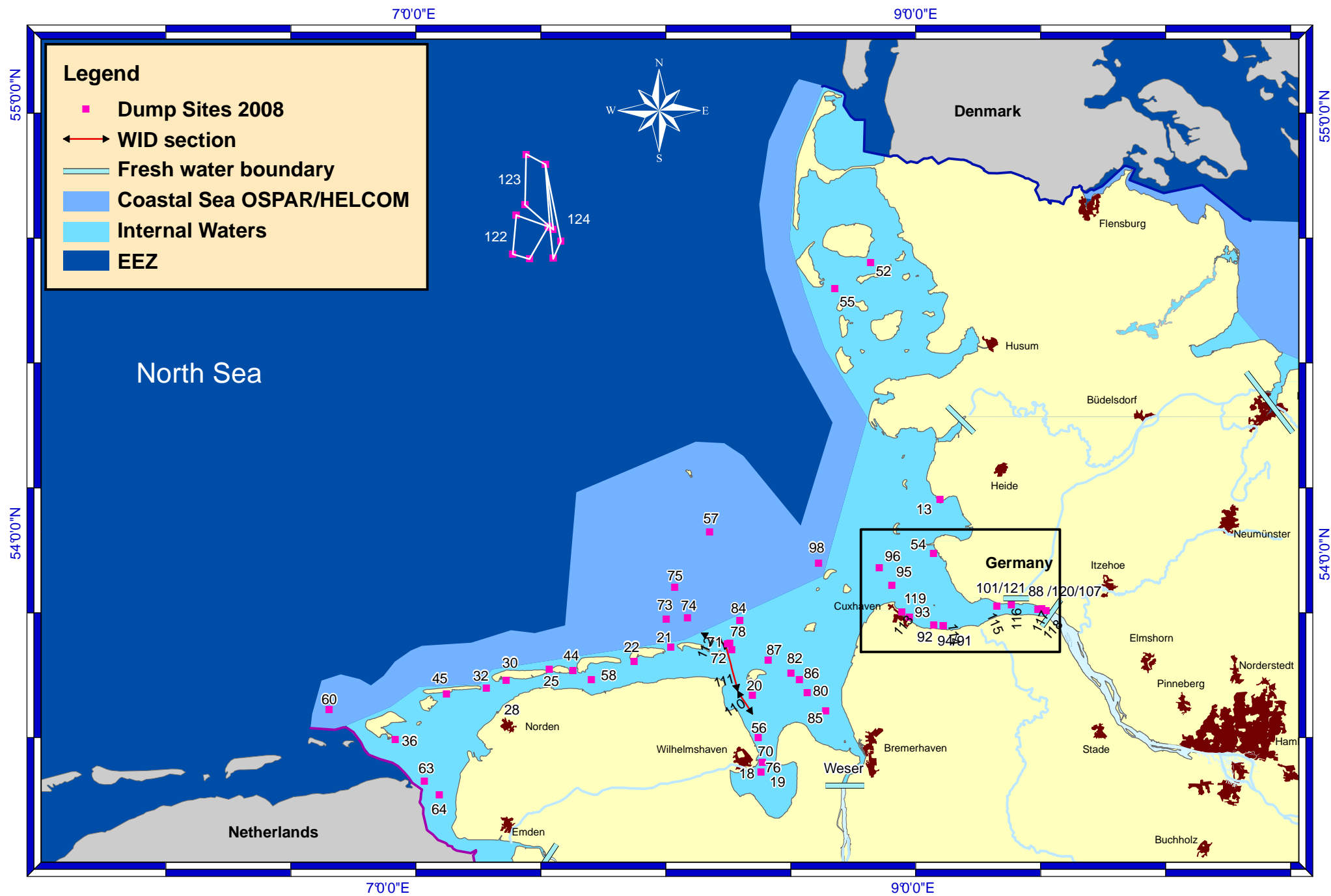


FIGURE 4b: Detailed map with dump sites in the estuary of the Elbe in 2008

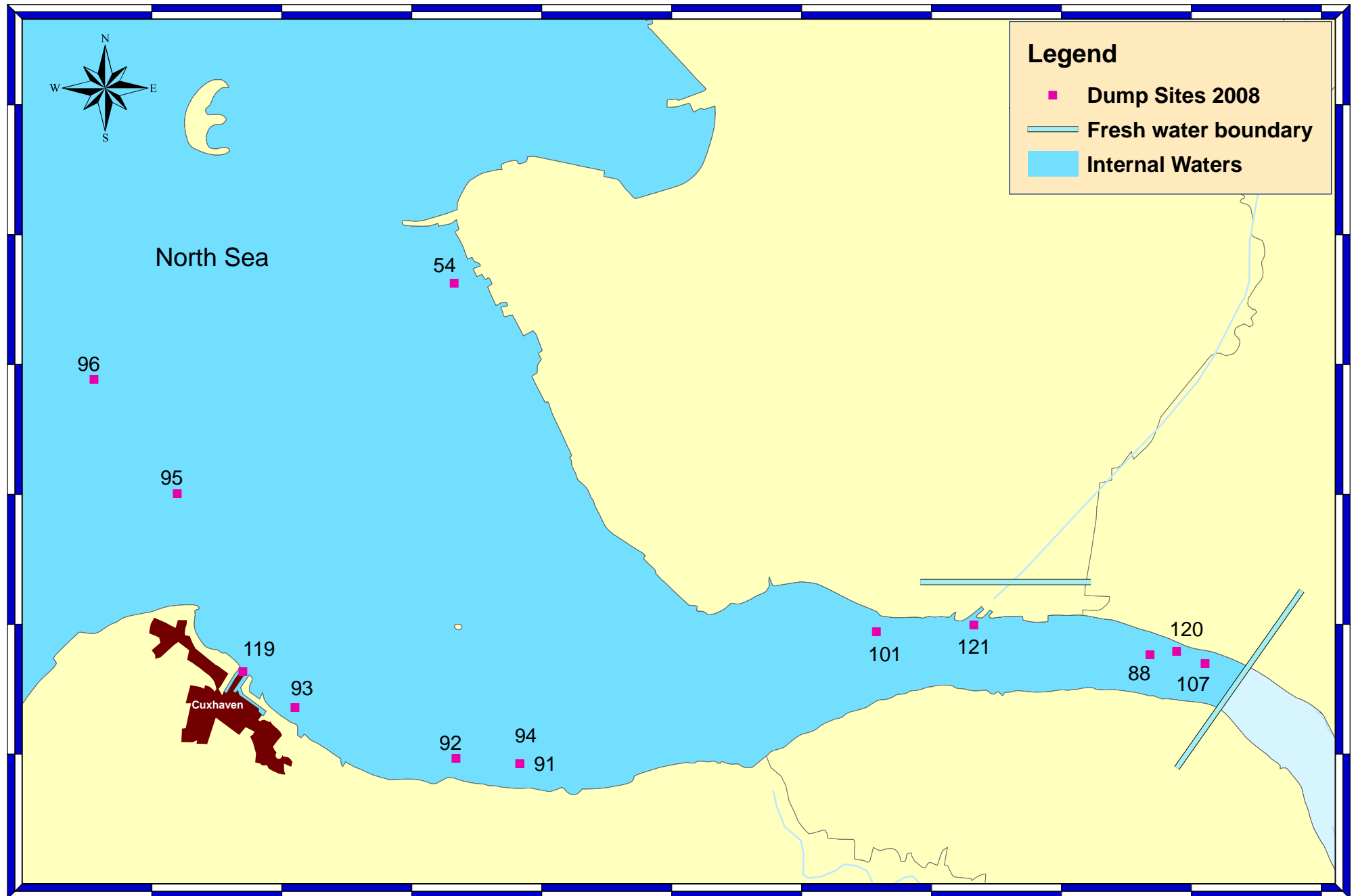


FIGURE 5: Dumping sites of dredged material in Iceland

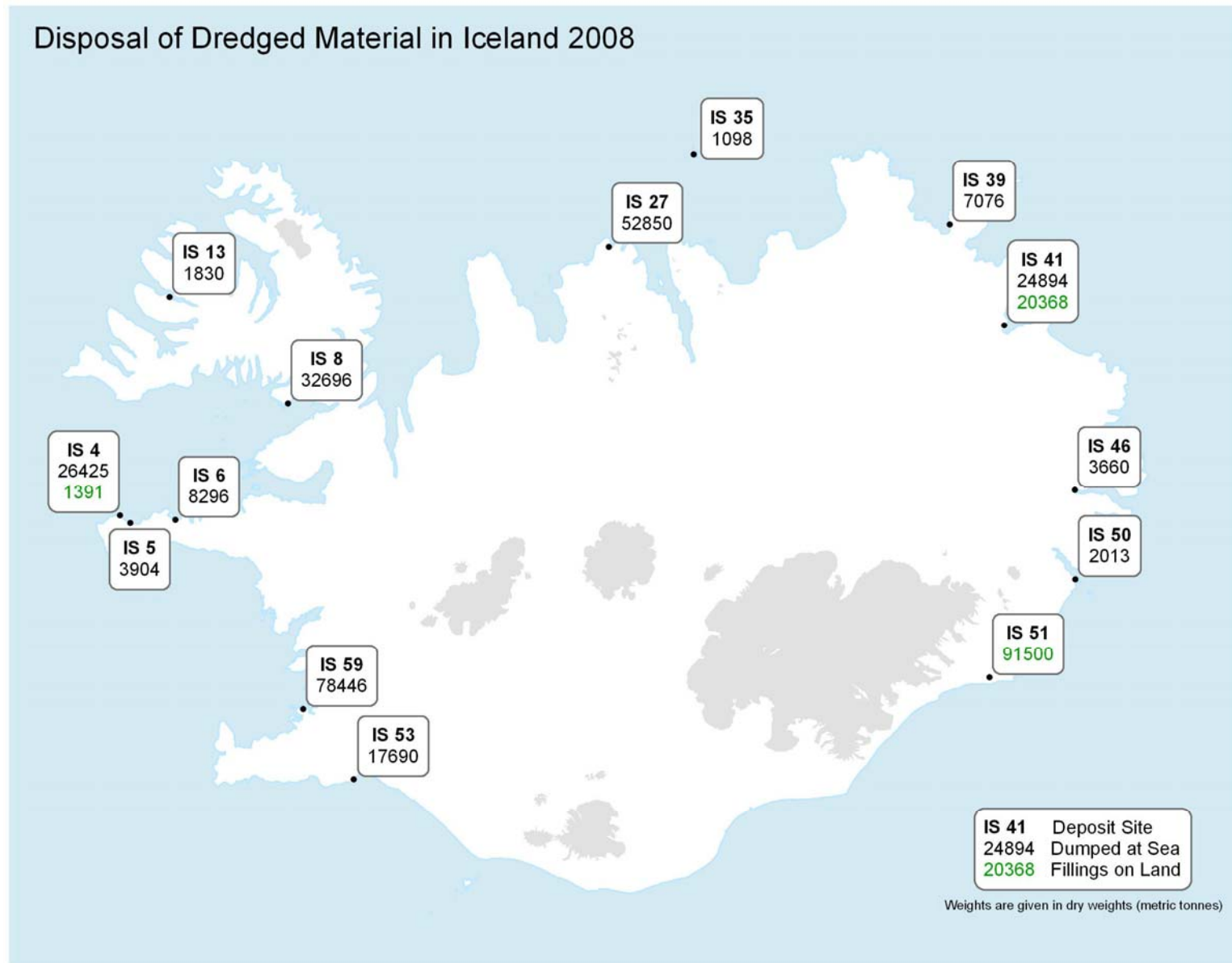


FIGURE 6: Dumping sites of dredged material in Ireland in 2008

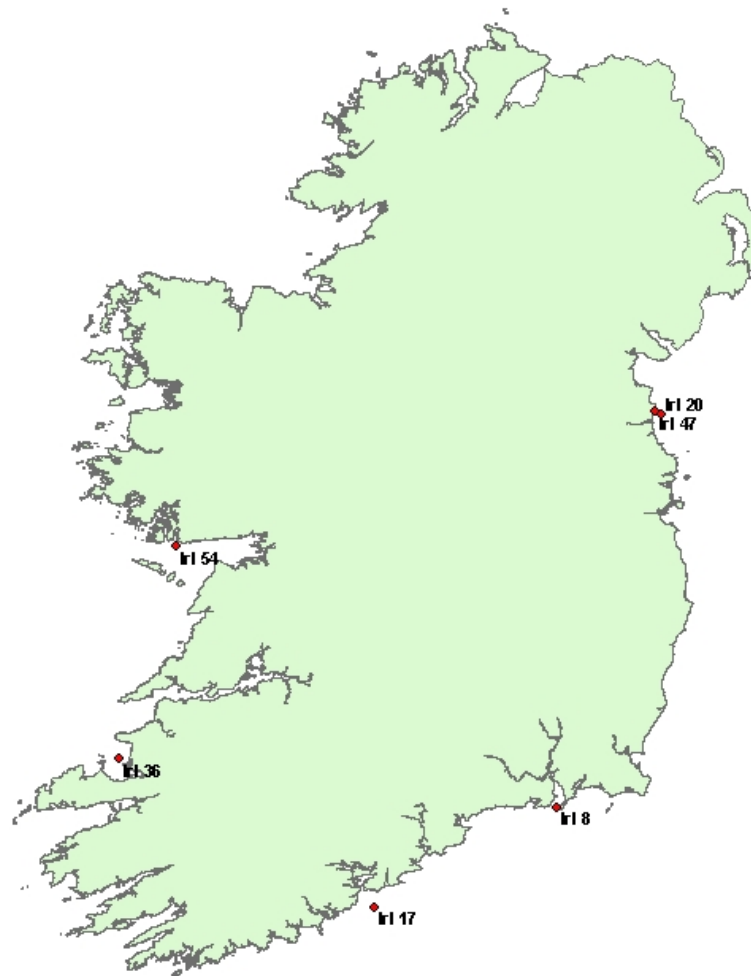
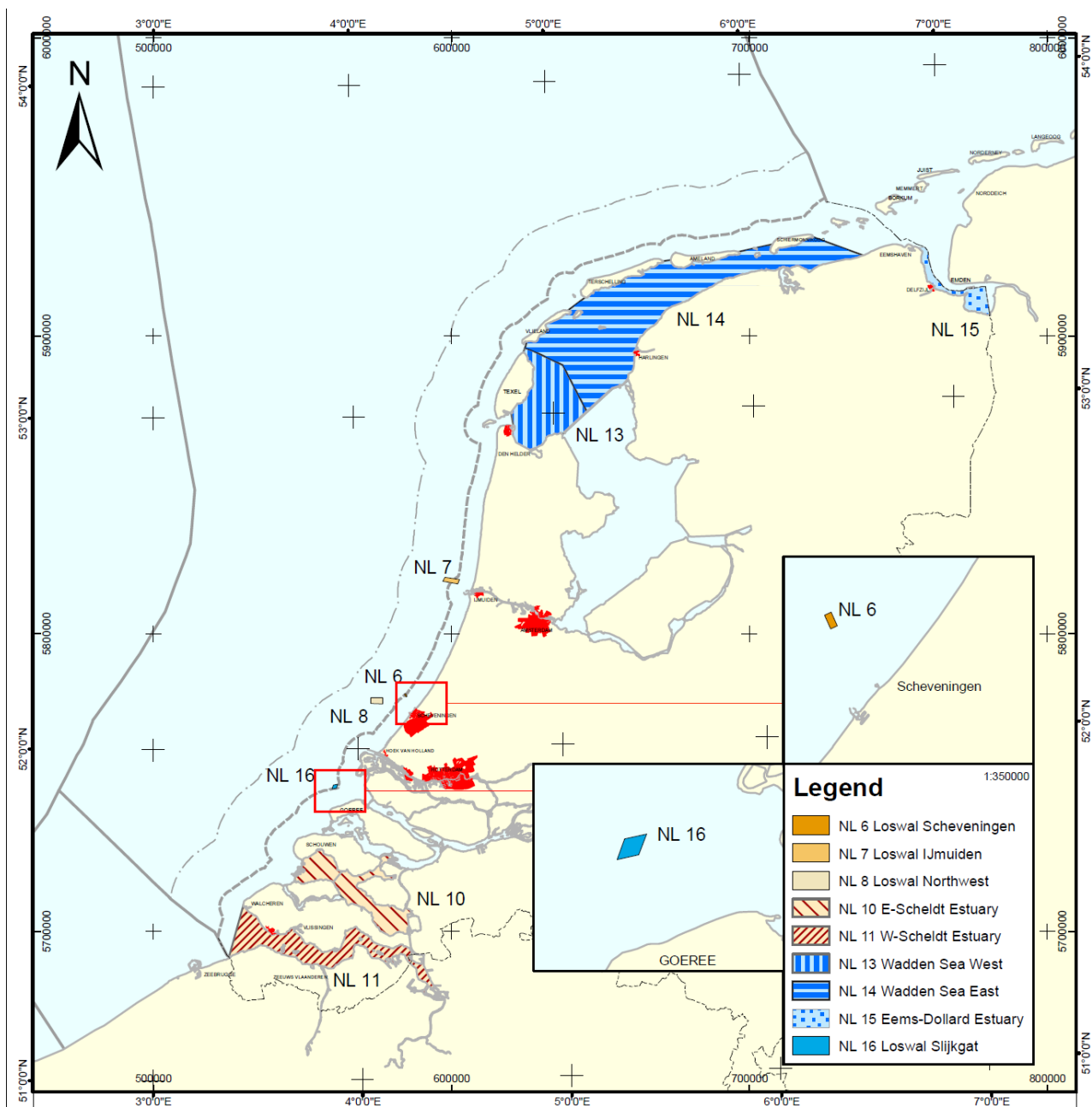


FIGURE 7: Dumping sites of dredged material in the Netherlands in 2008



Approximate position of the dumping sites for dredged materials in Oslo convention waters used in 2008 by the Netherlands

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070-3366641

QMS projectcode

09 NZE 9665 dv 01

Kaartnummer

NZWS-2009 - 0361

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

50 25 0 50 km

Getekend

Gezien

Akkoord

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03 - 11 - 2009

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OSPAR's vision is of a healthy and diverse North-East Atlantic ecosystem

ISBN 978-1-907390-59-3
Publication Number: 518/2010

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