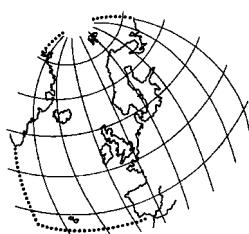


Biodiversity Series

Dumping of Wastes at Sea in 2003



**OSPAR Commission
2005**

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.

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.

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Report on Dumping Permits Issued in 2003

Table 1 Overview of number of permits issued, tonnes licensed and tonnes dumped in 2003

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	Vessels or aircraft	Others				
Belgium	0	0	0	0	0			24 805 920	(1)
Denmark	15	0	0	0	0	0	3 200 000	2 687 568	
Germany	17					4	14 900 000 8 100 000	7 790 000	(1) (2) (3)
Iceland	11						251 346		(1)
Ireland	7					0	1 098 654	694 292	(1) (2) (3) (4)
The Netherlands	5					numerous	16 605 000 m ³ 723 503	7 719 286	(1) (2)
Norway	38	11		1			302 246 723 503	1 140 127	(1) (2) (3)
Portugal	9	1	NI	3			629 850 39 000	707 850	
Sweden	2	1					19 000 000 0,4 million m ³	375 605	(1) (2)
UK	128	0	0	0	0		23 113 925	17 522 159	(1) (2) (3)

NI = No information

GP = general permit

Table 2 Specific reporting on permits issued in 2003*

Contracting Party	Number of permits issued * per waste category				Contaminants Material of concern		Tonnes dumped ** (dry weight)	Reasons for classification
	Dredged material	Inert Material	Vessels or aircraft	Others	Type	Level 2 (mg/kg)		
Germany	1				HCB pp-DDE	0,006 0,003	4 250 000	(1) (2)
Norway		11	1				723503	(1) (2)
Portugal	NA	1	3				39 000	(1)
Sweden	2	1					380 000 71 000 m ³	

* The number of permits in this column includes the operations regulated by other means

** For dredged material the tonnes dumped refer to material exceeding level 2
for inert material - numbers of permits issued in total and tonnes dumped in total

Amounts of Wastes Dumped at Sea in 2003

Part I

Table 3a Details of deposit sites and dumping methods

OSPAR-codes	categories of waste				origin name of watersystem	dredged material			total quantity			
	dredged material	inert material	fish waste	vessels/ aircraft		type of areas dredged	Harbour	Estuary	Sea	dredging capital	operation maintenance	(in metric tonnes)
Deposit site	dry weight	Tot. org. carbon	notes									
Belgium												
B1	x				Pas van het Zand			x		x	1 615 895	
B1	x				CDNB Zeebrugge			x		x	1 858 904	
B1	x				Scheur Oost			x		x	329 902	
B1	x				Scheur West			x		x	1 441 605	
B1	x				Pas van het Zand			x	x		516 017	
B1	x				CDNB Zeebrugge			x	x		313 469	
B3	x				Voorhaven Zeebrugge			x		x	852	
B3	x				CDNB Zeebrugge			x		x	553 618	
B3	x				Scheur West			x		x	57 456	
B3	x				Scheur Ost			x		x	104 501	
B3	x				CDNB Zeebrugge			x	x		24 896	
B6	x				Haven en voorhaven Zeebrugge	x				x	2 076 597	
B6	x				CDNB Zeebrugge			x		x	975 672	
B6	x				Haven Blankenberge	x				x	12 239	
B6	x				Toegang Blankenberge			x		x	61 884	
B6	x				CDNB Zeebrugge			x	x		18 564	
B6	x				Haven en Voorhaven Zeebrugge	x			x		428 655	
B9	x				Toegangsgeul Oostende			x		x	312 124	
B9	x				Haven Oostende	x				x	334 152	
B99	x				Haveng Nieuwpoort	x				x	142 420	
B/int1	x				Drempel van Vlissingen		x			x	322 742	
B/int1	x				Drempel van Borssele		x			x	879 161	
B/int1	x				Pas van Terneuzen		x			x	168 861	
B/int1	x				Drempel van Hansweert		x			x	60 839	
B/int2	x				Drempel van Borssele		x			x	373 559	
B/int2	x				Pas van Terneuzen		x			x	84 737	
B/int2	x				Overloop Hansweert awf		x			x	66 547	
B/int2	x				Overloop Hansweert opwt		x			x	18 821	
B/int2	x				Gat van Ossenisse		x			x	178 836	
B/int2	x				Drempel van Hansweert		x			x	95 697	
B/int2	x				Drempel van Valkenisse		x			x	51 909	
B/int3	x				Pas van Terneuzen		x			x	60 863	
B/int4a	x				Gat van Ossenisse		x			x	206 452	
B/int4a	x				Drempel van Hansweert		x			x	353 499	
B/int4a	x				Drempel van Walsoorden		x			x	24 859	
B/int4a	x				Overloop Valkenisse 58-62		x			x	37 097	
B/int4a	x				Drempel van Valkenisse		x			x	271 569	
B/int4a	x				Nauw van Bath		x			x	28 769	
B/int4a	x				Drempel van Bath		x			x	50 842	
B/int4c	x				R. en Pl. van Ossenisse		x			x	9 411	
B/int4c	x				Dr. Van Hansweert		x			x	731 479	
B/int4c	x				Ov. Valkenisse 54-58		x			x	106 776	

OSPAR-codes	categories of waste				origin name of watersystem	dredged material			total quantity (in metric tonnes)					
	dredged material	inert material	fish waste	vessels/ aircraft		type of areas dredged	Harbour	Estuary	Sea	dredging capital	operation type maintenance	dry weight	Tot. org. carbon	notes
B/int4c	x				Ov. Valkenisse 58-62		x			x		181 901		
B/int4c	x				Dr. van Valkenisse			x			x	209 500		
B/int4c	x				Dr. Van Bath			x			x	42 450		
B/int4c	x				Vaarw. BovenBath			x			x	10 901		
B/int4d	x				Overl. Hansweert op			x			x	37 501		
B/int4d	x				R. en Pl. van Ossenisse			x			x	4 719		
B/int4d	x				Dr. van Hansweert			x			x	825 045		
B/int4d	x				Ov. Valkenisse 54-58			x			x	119 250		
B/int4d	x				Ov. Valkenisse 58-62			x			x	233 267		
B/int4d	x				Dr. Van Valkenisse			x			x	405 587		
B/int4d	x				Dr. Van Bath			x			x	26 361		
B/int4d	x				Vaarw. Boven Bath			x			x	3 684		
B/int4e	x				Overl. Hansweert op			x			x	46 523		
B/int4e	x				Gat Van Ossenisse			x			x	234 001		
B/int4e	x				Dr. Van Hansweert			x			x	461 574		
B/int4e	x				Dr. Van Walsoorden			x			x	32 635		
B/int4e	x				Dr. Van Valkenisse			x			x	231 358		
B/int4e	x				Nauw van Bath			x			x	17 261		
B/int4e	x				Dr. Van Bath			x			x	78 511		
B/int7	x				R. en Pl. Van Ossenisse			x			x	37 202		
B/int7	x				Drempel van Hansweert			x			x	170 470		
B/int7	x				Overloop Vlakenisse (58-62)			x			x	253 520		
B/int7	x				Drempel van Valkenisse			x			x	590 716		
B/int7	x				Nauw van Bath			x			x	28 894		
B/int7	x				Drempel van Bath			x			x	194 392		
B/int7	x				Vaarw. Boven Bath			x			x	18 036		
B/int8	x				Gat van Ossenisse 30-34			x			x	36 410		
B/int8	x				Overloop Hansweert			x			x	22 822		
B/int8	x				Gat van Ossenisse			x			x	297 703		
B/int9	x				Drempel van Hansweert			x			x	23 327		
B/int9	x				Drempel van Valkenisse			x			x	77 975		
B/int0	x				Containerkaai Noord			x			x	9 501		
B/int0	x				Drempel van Zandvliet			x			x	385 643		
B/int0	x				Toegangsgeul Zandvliet			x			x	28 608		
B/int0	x				Drempel van Frederik			x			x	272 231		
B/int0	x				Drempel van Lillo			x			x	179 589		
B/int0	x				Toeg.geul Boudewijnsluis			x			x	39 632		
B/int0	x				Drempel van de Parel			x			x	12 566		
B/int0	x				Toegang Kallosluis			x			x	83 593		
B/int1bis	x				Drempel van Zandvliet			x			x	303 875		
B/int1bis	x				Drempel van Frederik			x			x	161 665		
B/int1bis	x				Drempel van Lillo			x			x	108 302		
B/int1bis	x				Drempel van de Parel			x			x	359 275		
B/int1bis	x				Drempel van Krankeloon			x			x	241 129		
B/int11	x				Dr. van Zandvliet			x			x	246 188		
B/int11	x				Toeg. Zandvlietsluis			x			x	105 830		
B/int11	x				Dr. van Frederik			x			x	45 417		
B/int11	x				Dr. van Lillo			x			x	93 842		
B/int11	x				Toeg. Kallosluis			x			x	106 069		

OSPAR-codes	categories of waste				origin name of watersystem	dredged material			total quantity (in metric tonnes)					
	dredged material	inert material	fish waste	vessels/ aircraft		type of areas dredged	Harbour	Estuary	Sea	dredging capital	operation type maintenance	dry weight	Tot. org. carbon	notes
B/int12	x				Containerkaai Noord		x			x		18 369		
B/int12	x				Dr. van Zandvliet			x			x	554 860		
B/int12	x				Toeg. Zandvlietsluis			x			x	139 971		
B/int12	x				Dr. van Frederik			x			x	540 594		
B/int12	x				Dr. van Lillo			x			x	240 554		
B/int12	x				Toeg. Boudewijnsluis			x			x	34 097		
B/int12	x				Dr. van de Parel			x			x	12 631		
B/int12	x				Toeg. Kallosluis			x			x	165 646		
Total												24 805 920		

Denmark														
NJL01	x				Aså Havn, sejlrende og forhavn	x				x		2 430		
NJL02	x				Attrup Havn, sejlrende og indsejling		x			x		675		
NJL07	x				Gjøl Havn	x				x		3 162		
NJL10	x				Sejlrende over Hals Barre		x			x		144 000		
NJL11	x				Haverslev Havn, sejlrende		x			x		720		
NJL20	x				Løgstør Havn smat indsejling	x						4 200		
NJL20	x				Rønbjerg indsejling		x			x		1 800		
NJL23	x				Als Odde, sejlrenden til Mariager Fjord	x				x		39 579		
NJL31	x				Rønnerhavnen, indsejlingen	x				x		6 075		
NJL37	x				Strandby Havn, forhavn, sejlrende	x						4 176		
NJL41	x				Sæby Havn	x				x		8 573		
NJL45	x				Øster Hurup havn	x				x		4 397		
NJL50	x				Ålbæk Havn		x					6 000		
RIB01	x				Esbjerg Havn, sejlrenden inden for bøje 16	x				x		83 355		
RIB01	x				Grådyb Barre, indsejlingen		x			x		202 500		
RIB02	x				Esbjerg Havn, sejlrenden inden for bøje 16	x				x		83 355		
RIB02	x				Grådyb Barre, indsejlingen		x			x		202 500		
RIB03	x				Slunden m Esbjerg og Fanø	x				x		3 915		
RIB04	x				Slunden m Esbjerg og Fanø	x				x		3 915		
RIB08	x				Grådyb Barre, indsejlingen	x				x		259 114		
RIN05	x				Thyborøn Færgehavn og sejlrende	x				x		8 193		
SJL09	x				Rømø Havn	x				x		15 420		
VIB06	x				Skive Søsportshavn	x				x		108		
AAR01	x				Anholt Havn	x				x		6 869		
AAR07	x				Ebeltoft Færgehavn	x				x		6 298		
NJL14	x				Hirtshals Havn mole	x			x			32 000		
NJL14	x				Hirtshals Havn	x			x			707 200		
NJL13	x				Hirtshals Havn, sand	x			x			715 840		
NJL13	x				Hirtshals Havn	x			x			131 200		
Total												2 687 568		

(1)														
D10	x				Dagebüll harbour	x				x		4 000		
D11														
D12	x				Husum harbour	x				x		43 000		
D13	x				Harbour and outer harbour of Büsum	x				x		13 000		

OSPAR-codes	categories of waste				origin name of watersystem	dredged material				total quantity (in metric tonnes)			
	dredged material	inert material	fish waste	vessels/ aircraft		type of areas dredged	Harbour	Estuary	Sea	dredging capital	operation type maintenance	dry weight	Tot. org. carbon
D14	x				Elbe estuary / navigation channel; outer port of the lock to the "Nord-Ostsee-Kanal" (Kiel-Canal); inner part of "Nord-Ostsee-Kanal"		x	x		x	3 718 000	85,51	(2)
D15	x				Weser estuary / navigation channel			x		x	57 000	1,31	(3)
D17	x				Jade bay / navigation channel		x	x		x	1 477 000	25,10	(4)
D20	x				Outer harbour of Hooksiel		x			x	16 000		
D21	x				Wangerooge harbour		x			x	11 000	0,14	
D22	x				Spiekeröog harbour		x			x	22 000	0,36	
D30	x				Norderney harbour		x			x	13 000	0,30	
D32	x				Norddeich harbour		x			x	23 000	0,55	
D34	x				Ems estuary / navigation channel			x		x	2 188 000	21,88	(5)
D36	x				Borkum, Minitrain harbour and approach channel of Borkum island		x			x	6 000		
D41	x				Niedersachsenbrücke Wilhelmshaven (approach channel and seaward mooring berth)		x	x		x	110 000		
D42	x				Niedersachsenbrücke Wilhelmshaven (landward mooring berth)		x	x		x	6 000		
D43	x				Bensersiel harbour		x			x	28 000	0,41	
D45	x				Approach channel of Juist harbour		x			x	18 000	0,16	
D50	x				Baltrum harbour		x			x	4 000	0,06	
D51	x				Langeoog harbour, Bensersiel harbour and approach channel to Bensersiel harbour		x			x	30 000	0,50	
D52	x				Wyk harbour (Föhr)		x			x	2 000		
D53	x				List harbour (Sylt)		x			x	1 000		
Total											7 790 000	136,299	

Iceland													
IS 2	x					x				x		17 297	
IS 4	x					x				x		19 935	
IS 4	x					x				x		13 286	
IS 5	x					x				x		16 226	
IS 25	x					x				x		19 981	
IS 29	x					x				x		4 880	
IS 35	x					x				x		3 508	
IS 38	x					x				x		61 000	
IS 39	x					x				x		56 437	
IS 42	x					x				x		17 446	
IS 52	x					x				x		12 200	
IS 61	x					x				x		9 150	
Total												251 346	

Ireland													
IRL 6	x				Liffey/Dublin Bay	x				x		44 119	
IRL 6	x				Liffey/Dublin Bay	x				x		53 924	
IRL 8	x				Suir/Barrow Estuary	x	x			x		148 641	
IRL 17	x				Cork Harbour	x	x			x		156 938	

OSPAR-codes	categories of waste				origin name of watersystem	dredged material			total quantity (in metric tonnes)					
	dredged material	inert material	fish waste	vessels/ aircraft		type of areas dredged	Harbour	Estuary	Sea	dredging capital	operation type maintenance	dry weight	Tot. org. carbon	notes
IRL 20	x				Boyne Estuary		x			x		19 519		
IRL 36	x				Tralee Bay/Fenit Harbour		x			x		11 617		
IRL 45	x				Shannon Estuary		x			x		6 005		
IRL 47	x				Boyne Estuary			x	x	x		209 249		
IRL 48	x				Dundalk Harbour/Bay		x	x		x		25 280		
IRL 49	x				Kinsale Harbour		x			x		19 000		
Total												694 292		

Netherlands														
NL-6	x				Scheveningen Harbour		x			x		196 368	ND	
NL-7	x				IJmuiden Harbour		x			x		919 634	ND	
NL-8	x				Rotterdam Harbour		x			x		3 319 159	ND	
NL-10	x				Eastern Sceldt Harbours		x			x		17 459	42	
NL-11	x				Western Sceldt Harbours		x			x		2 067 432	2 665	
NL-13	x				Waddensea West Harbours		x			x		345 826	ND	
NL-14	x				Waddensea East Harbours		x			x		542 098	ND	
NL-15	x				Ems-Dollard Harbours		x			x		311 310	ND	
Total												7 719 286	2 707	

Norway														
N1/Østfold	x				Oslofjord		x			x		2 760		
N2/Østfold	x				Oslofjord		x			x		540		
N3/Østfold	x				Oslofjord		x			x		2 040		
N4/Østfold	x				Oslofjord		x			x		30 000		
N5/Østfold	x				Oslofjord		x			x		720		
N6/Østfold	x				Oslofjord		x			x		5 280		
N7/Østfold	x				Oslofjord		x			x		1 080		
N8/Østfold	x				Oslofjord		x			x		1 800		
N9/Oslo Akershus	x				Oslofjord		x			x		6 565		
N10/Vestfold	x				Oslofjord		x			x		1 700		
N11/Vestfold	x				Oslofjord		x			x		3 200		
N12/Vestfold	x				Oslofjord		x			x		1 040		
N13/Vestfold	x				Oslofjord		x			x		640		
N14/Vestfold	x				Oslofjord		x			x		595		
N15/Vestfold	x				Oslofjord		x			x		145 264		
N16/Vestfold	x				Oslofjord		x			x		1 600		
N17/Vestfold	x				Oslofjord		x			x		240		
N18/Vestfold	x				Oslofjord		x			x		2 080		
N19/Vestfold	x				Oslofjord		x			x		1 120		
N20/Vestfold	x				Oslofjord		x			x		960		
N21/Buskerud	x				Oslofjord		x			x		600		
N22/Vest-Agder	x				Skagerak		x			x		31 200		
N23/Vest-Agder	x				Skagerak		x			x		45		
N24/Vest-Agder	x				Skagerak		x			x		300		
N25/Vest-Agder	x				Skagerak		x			x		325		
N26/Vest-Agder	x				Skagerak							1 000		
N27/Vest-Agder	x				Skagerak							212 245		
N28/Rogaland	x				North Sea							4 300		

OSPAR-codes	categories of waste				origin name of watersystem	dredged material			total quantity (in metric tonnes)					
	dredged material	inert material	fish waste	vessels/ aircraft		type of areas dredged	Harbour	Estuary	Sea	dredging capital	operation type maintenance	dry weight	Tot. org. carbon	notes
N29/Rogaland		x			North Sea							96 000		
N30/Rogaland	x				North Sea					x		300		
N31/Hordaland	x				North Sea	x				x		3 040		
N32/Hordaland	x				North Sea	x				x		1 296		
N33/Hordaland	x				North Sea	x				x		1 600		
N34/Hordaland	x				North Sea	x				x		240		
N35/Hordaland		x			North Sea							312 784		
N36/Hordaland		x			North Sea							500		(1) (6)
N37/Sogn & Fjordane	x				North Sea	x				x		1 000		
N38/Sogn & Fjordane		x			North Sea							35 000		
N39/Møre & Romsdal	x				Norwegian Sea	x				x		25 920		
N40/Møre & Romsdal		x			Norwegian Sea							1 350		
N41/Møre & Romsdal	x				Norwegian Sea	x				x		480		
N42/Sør-Trøndelag	x				Norwegian Sea	x				x		35 700		
N43/Nordland	x	x			Norwegian Sea	x				x		57 660		(2) (3)
N44/Nordland	x	x			Norwegian Sea	x				x		6 528		(2)
N45/Nordland	x	x			Norwegian Sea	x				x		18 000		(2)
N46/Nordland	x				Norwegian Sea	x				x		3 840		(7)
N47/Finnmark	x				Barents Sea	x				x		79 650		
N48/Finnmark			x		Barents Sea	x				x				(8)
Total												1 140 127		

Portugal													
P/1		x			V Castelo	x			x			39 000	
P/2	x				V Castelo		x			x		96 200	
P/2	x				Figueira	x				x		66 300	
P/4	x				Lisboa		x		x			78 000	
P/5	x				Setubal	x			x			126 100	
P/6	x				Setúbal	x				x		13 000	
P/7	x				Portimão	x			x			230 360	
P/8	x				Portimão	x				x		39 000	
P/9	x				Faro	x				x		19 500	
P/10	x				Tavira		x			x		390	
P/11			x		P.Delgada								
P/12			x		Horta								
P/13			x		Horta								
Total												707 850	

Spain													
E/1	x				Pasajes	x				x		48 174	0,00
E/2	x				Bilbao	x	x			x		54 413	405,16
E/3	x				Santander	x			x			46 009	601,33
E/5	x				Avilés	x	x		x	x		216 234	3 486,77
E/6	x				Ferrol	x			x			19 942	111,45
E/7	x				La Coruña	x			x	x		22 750	569,50
E/12	x				Cádiz	x			x	x		1 201 753	26 626,34
Total												1 609 275	31 800,55

OSPAR-codes	categories of waste				origin name of watersystem	dredged material			total quantity			
Deposit site	dredged material	inert material	fish waste	vessels/ aircraft		Harbour	Estuary	Sea	dredging capital	operation type maintenance	(in metric tonnes)	
										dry weight	Tot. org. carbon	notes

Sweden

SWE/1 Vingas	x	x			Kattegat		x			x	180 000	
SWE/2 Hakefjorden	x				Kattegat		x			x	605	
SWE/3 W. Varberg	x				Kattegat	x				x	195 000	
Total											375 605	

United Kingdom

CR021	x				Moray Firth		x		x	x	0	
CR030	x				Moray Firth	x			x	x	4 398	
CR031	x				Grampian Coast		x		x	x	850	
CR040	x				Spey Bay/Moray Firth	x			x	x	4 171	
CR050	x				Grampian Coast	x			x	x	3 473	
CR060	x				Grampian Coast	x			x	x	6 480	
CR070	x				Grampian Coast	x			x	x	2 259	
CR110	x				Dee River/North Sea	x			x	x	123 330	
DM001	x				Cumbria Coast	x			x	x	3 611	(1)
DV010	x				Kent Coast	x			x	x	255 954	
DV011	x				Kent Coast	x			x	x	0	
DV040	x				Kent Coast	x			x	x	22 234	
FI040	x				Scapa Flow	x			x	x	0	
FI045	x				Scapa Flow	x			x	x	0	
FI120	x				Shetland Coast	x			x	x	29 568	
FI125	x				Shetland Coast	x			x	x	29 568	
FO007	x				Grampian Coast	x			x	x	936	
FO010	x				South Esk River	x			x	x	73 256	
FO020	x				Tayside Coast	x			x	x	12 824	
FO023	x				Firth of Tay	x			x	x	621 375	
FO024	x				Firth of Tay	x			x	x	0	
FO028	x				Firth of Tay	x			x	x	64 724	
FO036	x				Firth of Tay	x			x	x	114 588	
FO038	x				Firth Of Forth	x			x	x	124 743	
FO041	x				Firth Of Forth	x			x	x	88 132	
FO044	x				Firth Of Forth	x			x	x	83 726	
FO048	x				Firth Of Forth	x			x	x	8 840	
FO080	x				Tweed River	x			x	x	2 503	
HE020	x				Hebrides Sea	x			x	x	46 088	
HE035	x				North Minch	x			x	x	2 386	
HE050	x				Loch Broom		x		x	x	5 058	
HE080	x				Hebrides Sea, Isle of Muck	x			x	x	831	
HU015	x				Humberside Coast	x			x	x	10 393	
HU020	x				Humber River	x	x		x	x	69 023	
HU030	x				Humber River	x	x	x	x	x	750 200	
HU040	x				Humber River	x			x	x	502	
HU041	x				Humber River	x			x	x	15 108	
HU046	x				Humber River		x		x	x	22 200	
HU060	x				Humber River	x	x	x	x	x	1 596 513	
HU080	x				Humber River	x	x		x	x	3 552 949	
HU090	x				Humber River	x	x		x	x	171 003	

OSPAR-codes	categories of waste				origin name of watersystem	dredged material				total quantity (in metric tonnes)			
	dredged material	inert material	fish waste	vessels/ aircraft		Harbour	Estuary	Sea	dredging capital	operation type maintenance	dry weight	Tot. org. carbon	notes
HU143	x				Great Ouse River	x	x			x	39 048		
HU150	x				Yare River	x	x	x	x	x	23 826		
HU170	x				Witham River	x	x	x		x	32 850		
IS040	x				Anglesey Coast	x		x	x	x	0		
IS055	x				Conwy River	x				x	0		
IS101	x				Dee River, Wales		x			x	265 530		
IS110	x				Mersey River	x	x			x	145 870		
IS120	x				Mersey River	x	x	x		x	69 091		
IS128	x				Mersey River		x			x	30 905		
IS140	x				Mersey River	x	x	x		x	950 699		
IS150	x				Mersey River/Liverpool Bay	x	x	x		x	29 445		
IS170	x				Wyre River	x				x	697 873		
IS180	x				Cumbria Coast	x				x	0		
IS192	x				Lune River	x				x	2 919		
IS200	x				Morecambe Bay	x	x			x	228 360		
IS205	x				Cumbria Coast	x		x	x	x	1 274 499		
IS240	x				Cumbria Coast	x		x	x	x	29 033		
IS241	x				Cumbria Coast	x				x	5 082		
IS310	x				Solway Firth			x	x		0		
IS400	x				Douglas Harbour, Isle of Man	x				x	0		
IS420	x				Peel Harbour Isle of Man	x				x	0		
IS591	x				Lagan River	x	x			x	17 572		
IS650	x				Down Coast	x				x	6 653		
LU010	x				Camel River	x				x	1 917		
LU070	x				Avon River	x	x			x	49 098		
LU080	x				Avon River	x	x			x	42 670		
LU083	x				Avon River	x	x			x	143 037		
LU084	x				Avon River	x	x			x	28 065		
LU085	x				Avon River	x	x			x	71 966		
LU086	x				Avon River	x	x			x	0		
LU110	x				Taff R./Severn Est.	x				x	220 729		
LU115	x				Severn Estuary	x				x	14 230		
LU125	x				Neath River	x				x	0		
LU130	x				Neath River/Swansea Bay	x	x	x		x	625 233		
LU140	x				Usk River	x	x			x	136 709		
LU168	x				Milford Haven	x	x			x	0		
LU169	x				Milford Haven	x	x			x	1 640		
LU190	x				Milford Haven	x				x	0		
MA010	x				Loch Ryan	x				x	0		
MA021	x				Firth Of Clyde	x				x	165 556		
MA050	x				Firth Of Clyde	x				x	28 222		
MA501	x				Foyle River	x				x	0		
MA545	x				Foyle River	x				x	49 157		
MA605	x				Antrim Coast	x				x	0		
PL019	x				Salcombe Estuary	x				x	0		
PL021	x				Tamar River	x				x	0		
PL031	x				Tamar River	x	x	x	x	x	55 573		
PL060	x				Fowey River/Cornwall Coast South	x				x	12 792		
PL075	x				Falmouth Harbour/Truro River	x	x		x	x	2 976		

OSPAR-codes	categories of waste				origin name of watersystem	dredged material			total quantity (in metric tonnes)					
	dredged material	inert material	fish waste	vessels/ aircraft		type of areas dredged	Harbour	Estuary	Sea	dredging capital	operation type maintenance	dry weight	Tot. org. carbon	notes
PO070	x				Teign River		x			x	x	0		
PO090	x				Teign River		x				x	0		
TH005	x				Waveney River		x				x	36 792		
TH034	x				Orwell River			x			x	13 993		
TH037	x				Orwell River		x				x	17 538		
TH052	x				Orwell/Stour Rivers + Essex/Suffolk Coast		x	x	x	x	x	1 968 012		
TH053	x				Orwell River		x				x	19 215		
TH062	x				Blackwater River			x			x	517		
TH070	x				Thames River			x			x	47 238		
TH140	x				Kent Coast		x				x	38 490		
TH207	x				Orwell River		x				x	35 071		
TH208	x				Orwell River		x				x	49 927		
TH209	x				Orwell River		x				x	18 608		
TH210	x				Orwell River		x				x	19 362		
TH211	x				Orwell River		x				x	159 901		
TY025	x				Coquet River			x			x	0		
TY042	x				Northumberland Coast		x				x	185 102		
TY070	x				Tyne River		x	x			x	30 880		
TY081	x				Tyne River		x	x			x	78 962		
TY090	x				Wear River		x	x			x	0		
TY130	x				Durham Coast		x				x	11 897		
TY150	x				Tees River/Hartlepool Bay		x	x	x		x	0		
TY160	x				Tees River/Hartlepool Bay		x	x	x		x	639 056		
TY180	x				Esk River		x		x		x	24 120		
TY181	x				Esk River		x		x			0		
TY190	x				North Yorkshire Coast		x				x	2 332		
WI010	x				Ouse River (E.Sussex)		x			x	x	115 008		
WI020	x				East Sussex Coast		x				x	45 618		
WI031	x				Adur River/Sussex Coast		x	x	x		x	70 012		
WI035	x				Sussex Coast				x		x	2 924		
WI045	x				Chichester Harbour		x	x			x	1 832		
WI060	x				So'ton Water, IoW, Portsmouth...		x	x	x	x	x	410 043		
WI080	x				So'ton Water, IoW etc.		x				x	11 751		
WI090	x				So'ton Water, IoW etc.		x				x	959		
WI110	x				Poole Harbour		x	x	x	x	x	44 381		
Total												17 522 159		

PART II

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.

ADDITIONAL INFORMATION

(Referring to Part II of the Format for Annual Reporting on Dumping Operations at Sea adopted at BDC 2001)

1. Deposit site

Germany

The following list shows the new dumping sites, which have been notified for the first time by the Federal Republic of Germany:

- "Wichter EE" in the vicinity of the island Baltrum; notified by the Federal German State Niedersachsen (new OSCOM-Code D/50);
- "Accumer EE" in the vicinity of the island Langeoog; notified by the Federal German State Niedersachsen (new OSCOM-Code D/51);
- Föhr, Waddensea near Wyk" in the vicinity of the island Föhr; notified by the Federal German State Schleswig Holstein (new OSCOM-Code D/52);
- "Sylt, Lister Landtief, near List" in the vicinity of the island Sylt; notified by the Federal German State Schleswig Holstein (new OSCOM-Code D/53)

Iceland

The following sites were not used in 2003: IS 3, IS 24, IS 28, IS 37, IS 41, IS 51 and IS 55.

Ireland

The locations of the deposit sites in Ireland are indicated in Part II-Figure 3 and their co-ordinates in Table 1 to that figure.

Norway

Number of deposit sites per county in Norway for 2003 in the OSPAR Convention area:

Number County	2003			
	Dredged material	Inert material	Fish waste	Other waste (ships and bulky waste)
1 Østfold	8			
2 Akershus/Oslo	1			
3 Vestfold	11			
4 Buskerud	1			
5 Telemark	0			
6 Aust-Agder	0			
7 Vest-Agder	4	2		
8 Rogaland	1	2		
9 Hordaland	4	2		
10 Sogn og Fjordane	1	1		
11 Møre og Romsdal	2	1		
12 Sør-Trøndelag	1			
13 Nord-Trøndelag	0			
14 Nordland	4	3		
15 Troms	0			
16 Finnmark	1			1
Total	39	11		1

Portugal

Areas of dumping at sea in 2003:

Code	Areas	Zone	Dumping points		Category of material	Quantity	
			Long. W	Lat. N		1 000 m ³	1 000 tonnes
P/1	Viana de	Sea	08° 53' 00''	41° 39' 00''	Clean dredged material (Class 1)	30	39
P/4	Lisboa	Sea	09° 09' 30''	38° 41' 40''	Dredged material	60	78
P/9	Faro	Sea	07° 50' 00''	36° 57' 00''	with traceable contamination (Class 2)	15	19,5
P/10	Tavira	Sea	07° 32' 00''	37° 04' 00''		0,3	0,39
P/2	Viana de	Sea	09° 02' 30''	41° 50' 00''	Dredged material with low contamination (Class 3)	70	90
P/3	Figueira	Sea	08° 59' 00''	40° 06' 00''		51	66,3
P/5	Setubal	Sea	08° 59' 00''	38° 23' 00''		97	126,1
P/6	Setubal	Sea	08° 59' 00''	38° 23' 00''		10	13
P/7	Portimão	Sea	08° 31' 30''	37° 01' 48''		177,2	230,36
P/8	Portimão	Sea	08° 31' 30''	37° 01' 48''		30	39
P/11	Ponta Delgada	Sea	25° 46,275'	37° 46,79'	Ship		
P/12	Horta	Sea	28° 36' 00''	38° 33,25'	Ship		224 t
P/13	Horta	Sea	28° 37' 00''	38° 31' 00''	Ship		

Sweden

The deposit sites for Sweden are as follows:

SWE/1	Vinga	N 57° 38' 11'', E 11° 48' 11''
SWE/2	Hakefjorden	N 57° 41' 11'', E 11° 45' 11''
SWE/3	Varberg	N 57° 06' 9'', E 12° 08' 9''

United Kingdom

The following list shows the new dumping sites for 2003:

United Kingdom

The following list shows the new dumping sites for 2003:

Site Code	Name	Degrees & Decimal Mins		Decimal degrees		Site Shape	Radius (nm)	Bearing 1 (degs)	Bearing 2 (degs)	Description	Status	Depth, m	Dist from Coast, Km	Internal Waters?	Country		Sea Area
		Latitude	Longitude	Latitude	Longitude												
FI120	ULSTA	60 29.200 N	01 09.600 W	60,4867	-1,16	CIRCLE	0,14				Open				NO	SCOTLAND	Atlantic
FI125	TOFT	60 27.900 N	01 07.700 W	60,465	-1,1283	CIRCLE	0,14				Open				NO	SCOTLAND	Atlantic
HE080	PORT MOR ISLE OF MUCK	57 02.600 N	06 27.020 W	57,0433	-6,4503	CIRCLE	0,14				Open				NO	SCOTLAND	Hebrides Sea
HU046	HULL MARINA	53 44.200 N	00 20.100 W	53,7367	-0,3350	POINT				Point of discharge from a pipe from Hull Marina into the Humber.	Open			0,01	NO	ENGLAND	North Sea

2. Method of determination

Germany

DDT: from 2002 onwards, the figure given under DDT reflects the “pp-DDT-portion”. In the preceding years, the sum of DDT, DDD and DDE components was taken as the basis. Therefore, the quantity given for 2003 is lower compared to the preceding years, except the year 2002.

Total PAH: like in the preceding years, the figure under total PAH reflects the sum of PAH₆.

Iceland

The following sites were not used in 2003:

IS 23, IS 24, IS 28, IS 37, IS 41, IS 51, IS 55.

Ireland

In many 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 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

The limits of detection achieved are :

	Irl 6	Irl 8	Irl 17	Irl 20	Irl 36	Irl 45	Irl 47	Irl 48	Irl 49
Hg (mg kg ⁻¹)	-	-	-	-	0,05	-	-	0,03	
As (mg kg ⁻¹)	-	-	-	-	-	-	-	0,05	
Cd (mg kg ⁻¹)	-	-	-	-	-	-	-	0,05	
Cu (mg kg ⁻¹)	-	-	-	-	-	-	-	0,05	
Pb (mg kg ⁻¹)	-	-	-	-	-	-	-	0,05	
Zn (mg kg ⁻¹)	-	-	-	-	-	-	-	0,05	
Cr (mg kg ⁻¹)	-	-	-	-	-	-	-	0,05	
Ni (mg kg ⁻¹)	-	-	-	-	-	-	-	0,05	
TBT (mg kg ⁻¹)	0,01-	0,001-0,02		0,001	0,011	0,002	0,001	0,02	0,02
DBT (mg kg ⁻¹)	0,01-	0,001		0,001	0,01	0,002	0,001	0,02	0,02
CB28 (ug kg ⁻¹)	1,0	3,4	1,4-7,0	2,8	10,0	7,0	2,8	1,0	1,0
CB52 (ug kg ⁻¹)	1,0	3,4	1,4-7,0	2,8	10,0	7,0	2,8	1,0	1,0
CB101 (ug kg ⁻¹)	1,0	3,4	1,4-7,0	2,8	10,0	7,0	2,8	1,0	1,0
CB118 (ug kg ⁻¹)	1,0	3,4	1,4-7,0	2,8	10,0	7,0	2,8	1,0	1,0
CB138 (ug kg ⁻¹)	1,0	3,4	1,4-7,0	2,8	10,0	7,0	2,8	1,0	1,0

- 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.

Organic matter

For this parameter we have used two types of techniques.

As *volatile solids*:

- Drying of the sample at 105°C, grinding in a mortar and combustion in muffle at 550°C up to constant weight.
- Determination of total quantity as (formula used in our "Recommendations for the management of dredged material in the ports of Spain"):

$$0,35 \times \text{Volatile solids concentration (\%)} \times \text{dumped mass (tn)}$$

$$\text{TOC mass (tn)} = \frac{\text{TOC mass (tn)}}{100}$$

As *Total organic carbon (TOC)*:

- Drying at 105°C, elimination of the inorganic carbon with HCL and determination by means of calcination and detection of CO2 with an infrared detector (Elementary analysis).
- Determination of the total quantity as:

$$\text{TOC concentration (\%)} \times \text{dumped mass (tn)}$$

$$\text{TOC mass (tn)} = \frac{\text{TOC mass (tn)}}{100}$$

United Kingdom

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 Benzanthracene	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), 25 pp.
- 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), 29 pp.
- 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), 18pp.
- 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), 25 pp.
- 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), 25 pp.

3. 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;	B, IS, NL, UK, IE ¹ Mostly yes for IE ³	IE ² (PSD, H ₂ O), density)	D, IE ² (all other non subcontracted work)
(ii) periodic comparative analysis of laboratory reference materials and certified reference materials;	B, IS, NL, UK, IE ¹ mostly yes for IE ³	IE ² - as above	D IE ² - as above IE ³
(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;	B, IS, NL, UK IE ¹ Mostly no for IE ³	IE ² - not for sediment	IE ³
(iv) periodic participation in interlaboratory comparison exercises, including, where possible, international comparison exercises;	B, NL, UK, IE ¹ mostly yes for IE ³	IE ² - not for sediment	D IE ³
Do the laboratories carrying out the analyses undertake:	All	None	Some
<i>Contracting Parties responding "Yes" to this question are indicated under the respective columns with their country abbreviation.</i>			
(v) periodic participation in national and, where possible, international laboratory proficiency schemes, under which:	B NL, UK, IE ¹ IE ¹ IE ¹ IE ¹ Mostly no for IE ³	IE ² - not for sediment	D, IE ³ - not for sediment

- 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).

Belgium has reported that their laboratories follow the EN ISO/IEC 17025.

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

Belgium has encountered no difficulty.

Notes to table on Quality Assurance of dumped material

Ireland has reported that dredge sediments are carried out by a number of laboratories:

IE¹ laboratory responsible for carrying out approximately 60% of all analyses;

IE² signifies laboratory responsible for carrying out approximately 20% of all analyses;

IE² represents combined answers from laboratories responsible for carrying out the remaining 20% of analyses.

Norway has reported that the County Administrations have often filled in information on quality assurance of analyses for dumped material. Reporting in this respect is very inconsistent. In general, well established laboratories are used, but formal quality assurance is often missing.

FOOTNOTES TO ALL TABLES

Table 1

Belgium

- (1) No permits were issued in 2003 since permits issued in 2002 are valid for 2 years.

Germany

- (1) This quantity refers to sand.
(2) This quantity refers to silt.
(3) Permits for dredging/dumping of dredged material are issued by the competent authorities of the Federal States (Länder). Permits are not issued for dredging/dumping activities of the German Federal Water and Shipping Directorate (the Directorate does not issue permits for its own activities). However the dredging/dumping activities of the Directorate are governed by national regulations which are in accordance with OSPAR and LC requirements.

Iceland

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

Ireland

- (1) In addition to the seven permits issued in 2003, dumping was carried out under a 5-year permit issued in 2002.
(2) The quantity licenced does not include that licenced under the five permits issued in 2002. The total quantity licenced under the 5 year permit in question would have been reported as licenced in 2002.
(3) Permits are issued on a wet weight basis. The dry licenced amounts are calculated using the moisture content of the dumped material to "back calculate" the dry licenced tonnages.
(4) The actual amounts dumped can vary considerably from the amount licenced (it is always less), particularly in cases where five-year permits are granted.

The Netherlands

- (1) 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.
(2) Permits issued for dumping of dredged materials at sea are licensed in cubic metres (not metric tonnes).

Norway

- (1) In addition one case of illegal dumping, 3840 tonnes dredged material, see table 3 a, site 46.
(2) Reporting of inert material: 10 cases of stones either from land (uncontaminated rocks from road construction work)
(3) Dumping of vessels: 2 hulls of wood, 1 hull of plastic. All ships are 0-50 ft long.

Sweden

- (1) The permit was given up to 31 December 2009.
(2) The permit was given up to 31 December 2005.

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 licences are now issued for 3 years, including some with very large tonnages.
(3) 6000 tonnes dry weight of fish waste was licensed for deposit in the sea in 2003. The material was licensed for deposit directly onto the intertidal zone but is not dumping under the terms of the Convention. 953 tonnes of fish waste was deposited under this and previous licenses during 2003.

Table 2

Germany

- (1) Although HCB and pp-DDE 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 the same water body. Due to hydrological conditions, mixing of particulate matter between dredging and disposal areas is intensive, and therefore the same material has to be dredged and disposed of repeatedly. The concentrations of HCB and pp-DDE 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.
- (2) The average concentration of HCB in dredged material of the Elbe estuary is 7,5 µg/kg in the fine fraction <20 µg/kg. The average concentration of p,p-DDE is 3,8 µg/kg in the fraction <20 µg/kg, the respective action level 2 is 3 µg/kg. The action levels refer to the fraction <20 µm, too.

Norway

- (1) 500 tonnes mussel, rest is natural rock material.
(2) Plastic hulled, 7,6 m long.

Portugal

- (1) The type of inert material is sand and silt (P1) sand, silt and clay (P7). The chemical values are under permit values for this type of material.

Table 3 a

Germany

- (1) For Germany where necessary, the quantities in Table 3a have been converted from cubic metres into tonnes. 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: 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).
- (2) Additional quantity of 7 911 000 tonnes sand, exempt from chemical analysis.
(3) Additional quantity of 3 372 000 tonnes sand, exempt from chemical analysis.
(4) Additional quantity of 1 270 000 tonnes sand, exempt from chemical analysis.
(5) Additional quantity of 2 354 000 tonnes sand, exempt from chemical analysis.

Norway

- (1) Site 36: dumping of 500 tonnes unprocessed mussel.
(2) Site 43 to 45: dumping of inert material (rocks) and dredged material.
(3) Site 43: 48 060 tonnes of inert material + 9 600 tonnes of dredged material.
(4) Site 44: 3 264 tonnes of inert material + 3 264 tonnes of dredged material.
(5) 9 000 tonnes of inert material + 9 000 of dredged material
(6) Mussel
(7) Illegal dumping of dredged material.
(8) Dumping of plastic hulled vessel, 7,6 metres long (category: 0-50 ft).

United Kingdom

- (1) DM001 was a deposit site at Harrington Harbour off the North West coast of England.

Table 3 b

Germany

- (1) The figures for the total load in Table 3b for the sites 14, 15, 17 and 34 have been calculated on the basis of the silt fraction only. The quantity of the associated sand fraction which is exempted from analysis according to § 5.2 of the OSPAR Guidelines for the Management of Dredged Material (Ref. No.: 1998-20) is given as additional information in the footnotes to Table 3a.

Iceland

No samples exceeded level 2, and in general, analysed values are within the range observed in unpolluted sediments in the relevant region. Therefore, calculation of loads are not considered relevant.

Ireland

- (1) IRL 6 capital dredging
(2) IRL 6 maintenance dredging.
(3) 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 + < 0,12 tonnes is quoted as < 0,12 tonnes).
(4) A portion of the material dumped at IRL 49 originated from an area with elevated TBT levels (1,3 mg/kg dry weight). It was capped with material with maximum TBT levels of 0,06 mg/kg dry weight. As the material concerned constituted only a very small (but unknown) portion of the total material dumped its contribution to the total quantity of TBT dumped is not considered.

Norway

- (1) Site N49 mg/kg dw: Cd: 0,14-0,34; Hg: 0-0,12; Pb: 3-12.
(2) Site N50 mg/kg dw: Cd: 0,06-0,62; Hg: 0-1,8; Pb: 3-171.
(3) Site N50: 8 PCB ug/kg.
(4) Site N53 mg/kg dw: Pb: 5-6.
(5) Site N53: 3 PCB ug/kg.
(6) Site N54 mg/kg dw: Cd: 0,03-0,73; Hg: 0,05-1,14; Pb: 8-115.
(7) Site N54: 1-31 PCB ug/kg.

Portugal

- (1) The values are in mg/kg for metals and µg/kg for organic compounds.

LEGEND TO ALL TABLES

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

Figure 1a - Dumping sites of dredged material in Belgium in 2003

Dumping and dredging sites

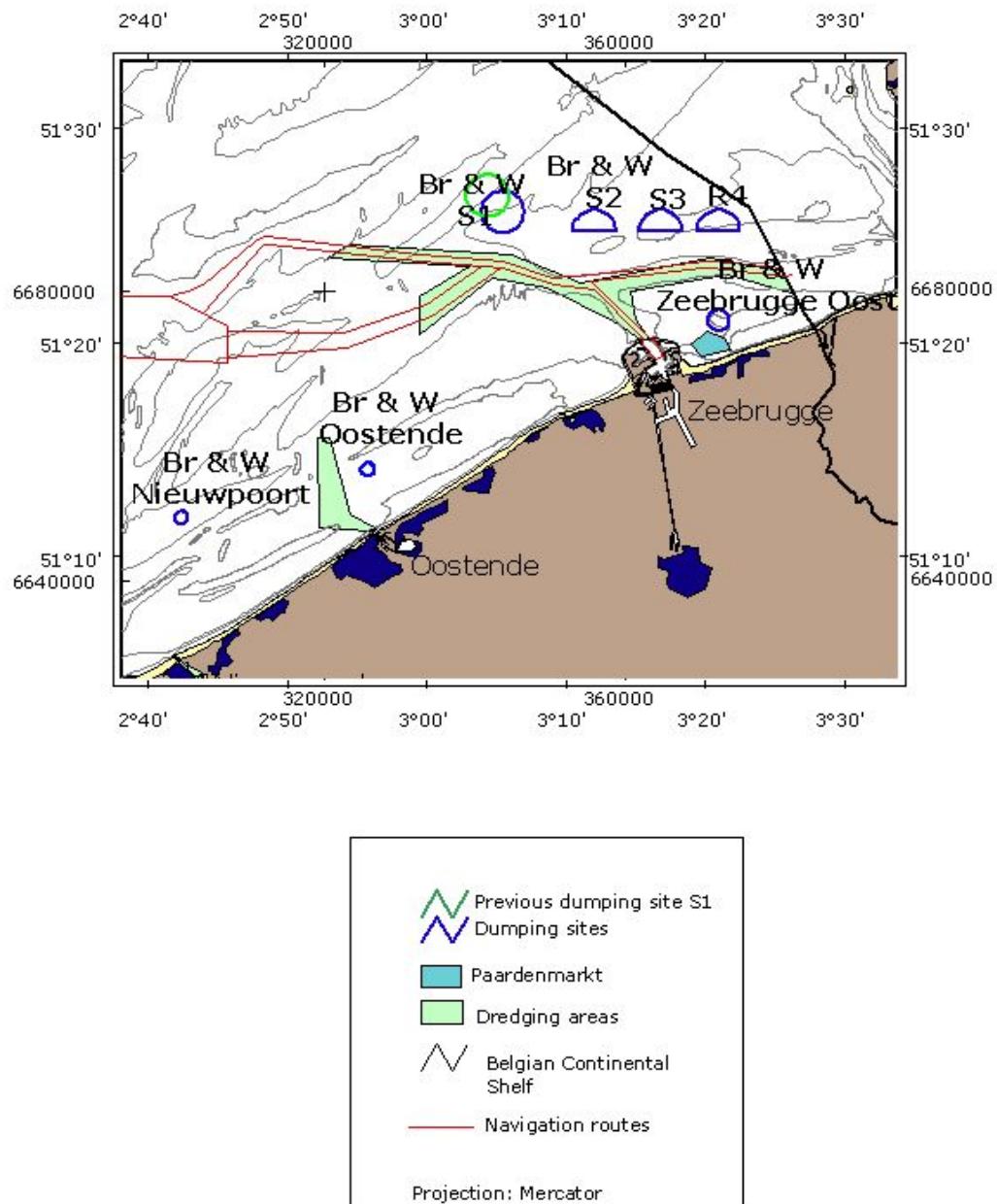


Figure 1b Dumping of dredged material in internal waters carried out in Belgium in 2003 at B/INT 0-5, 6-9

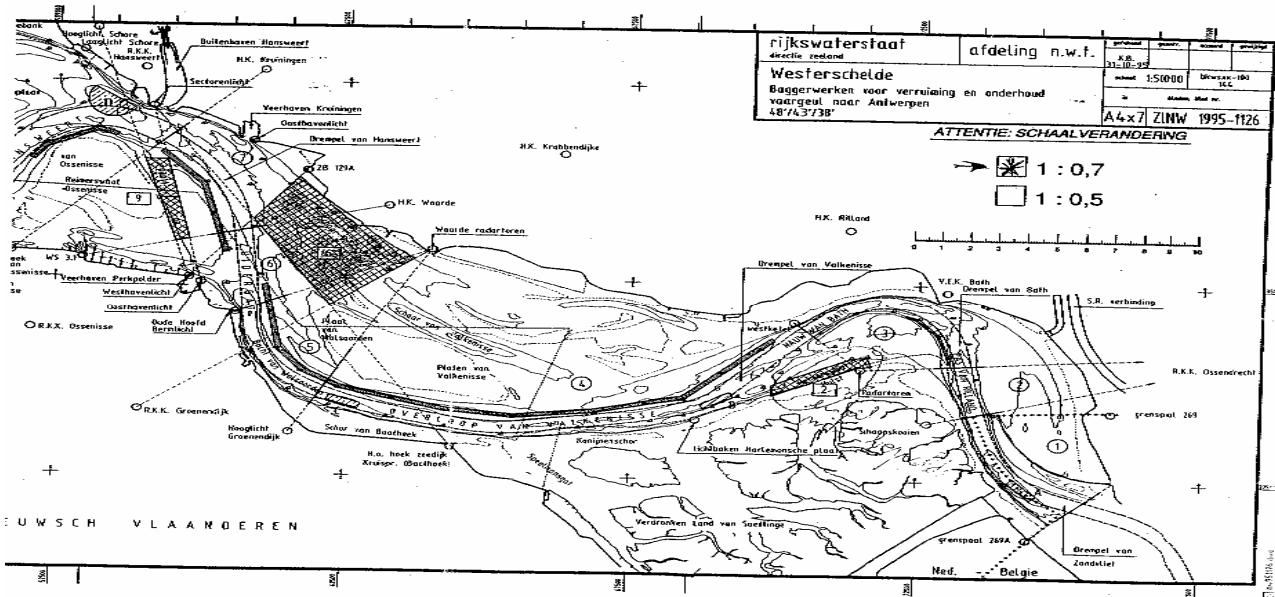
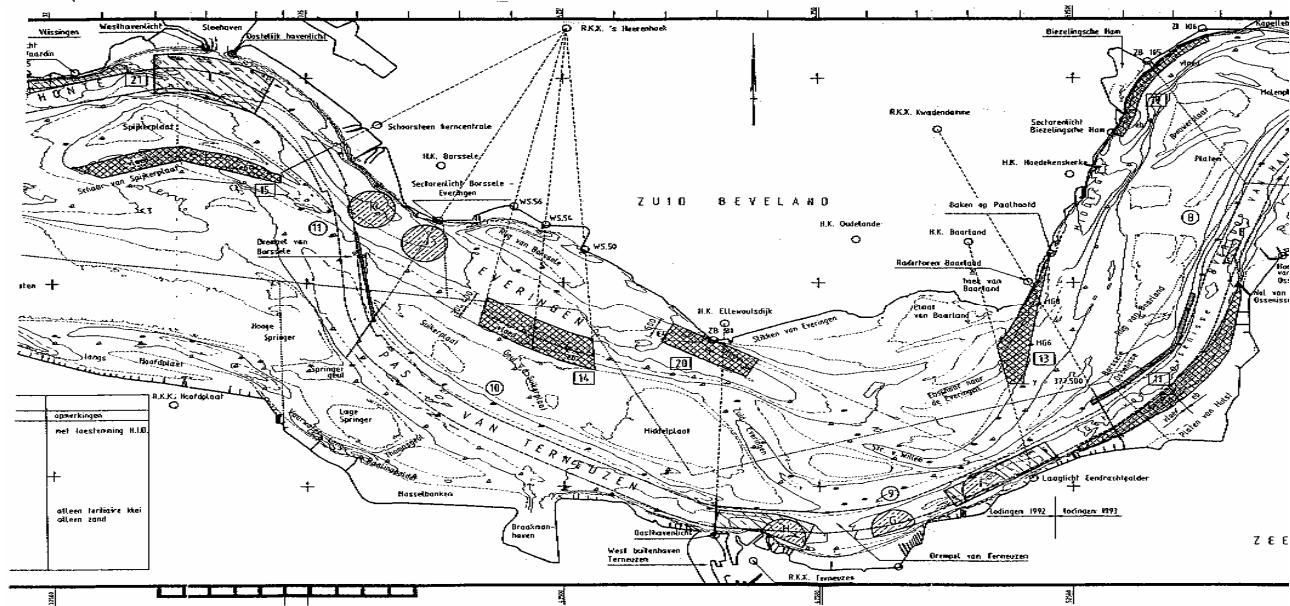
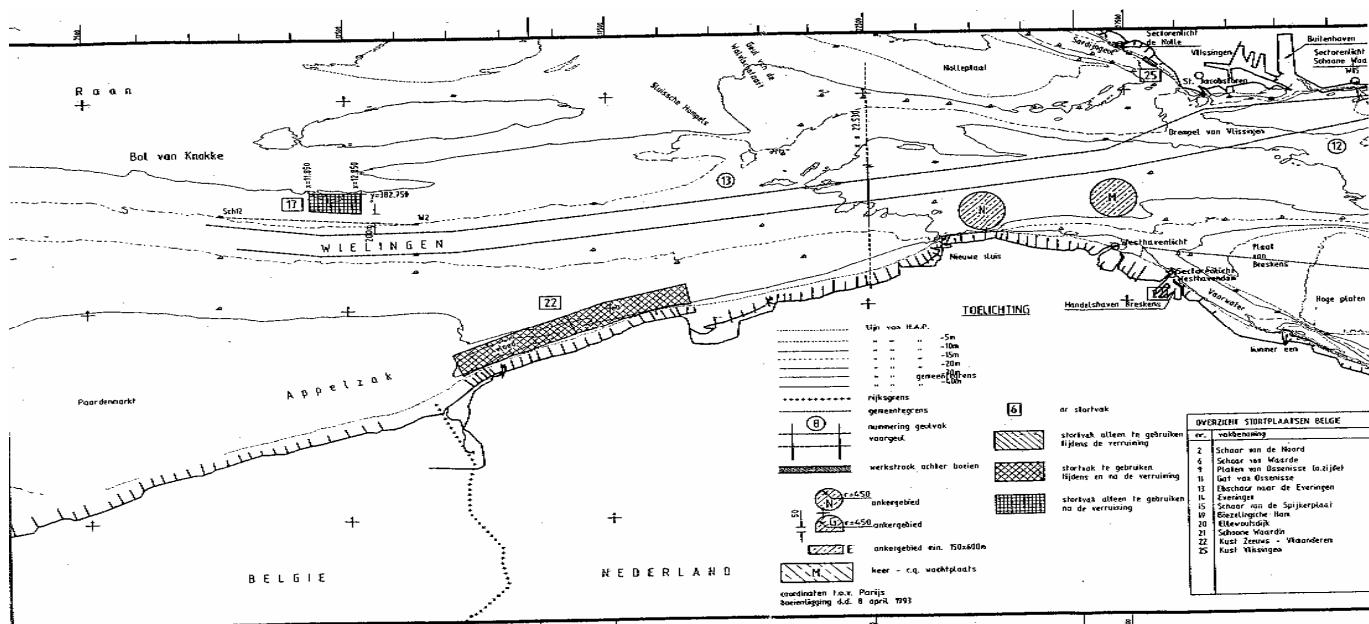


Figure 2: Dumping sites of dredged material in Germany in 2003

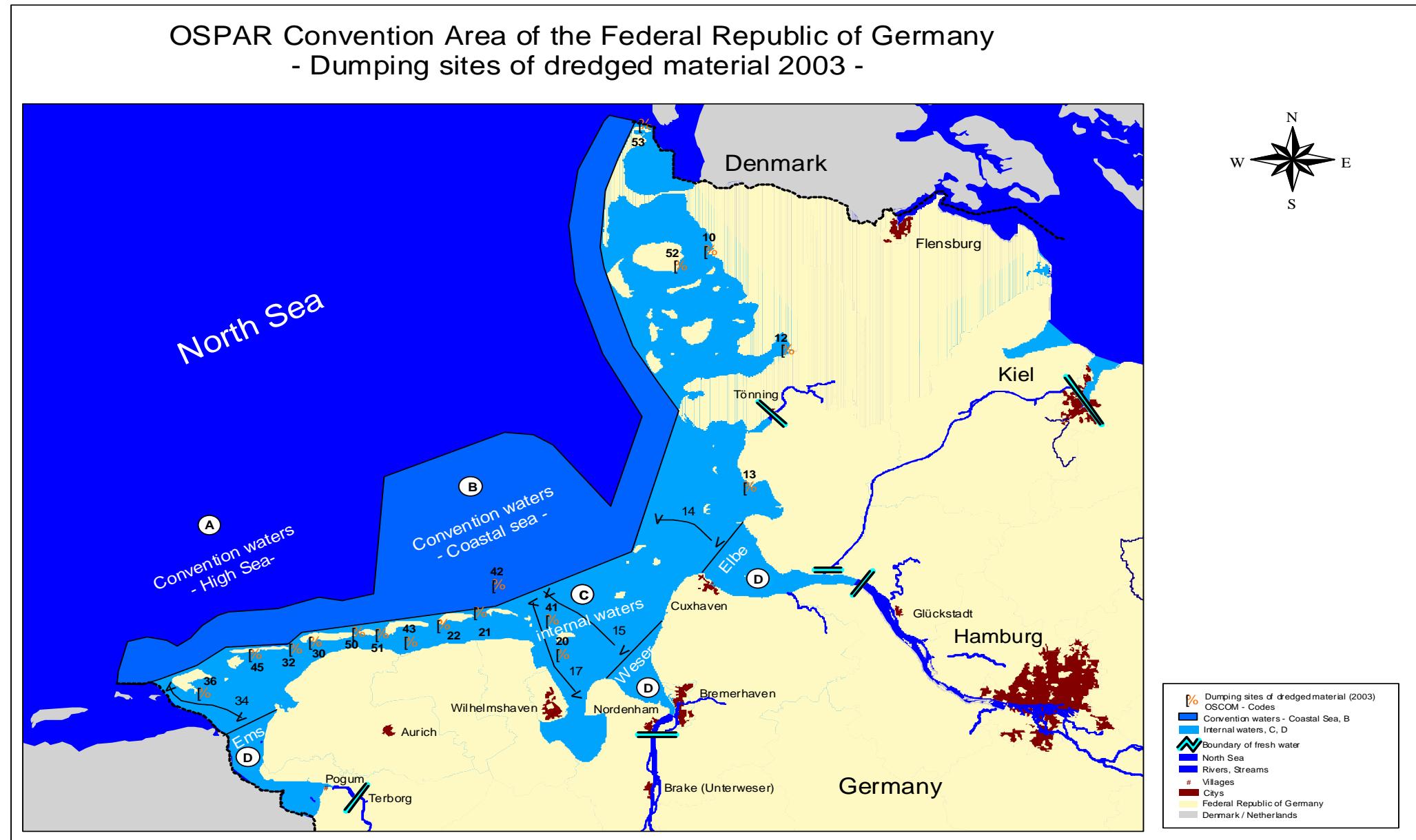
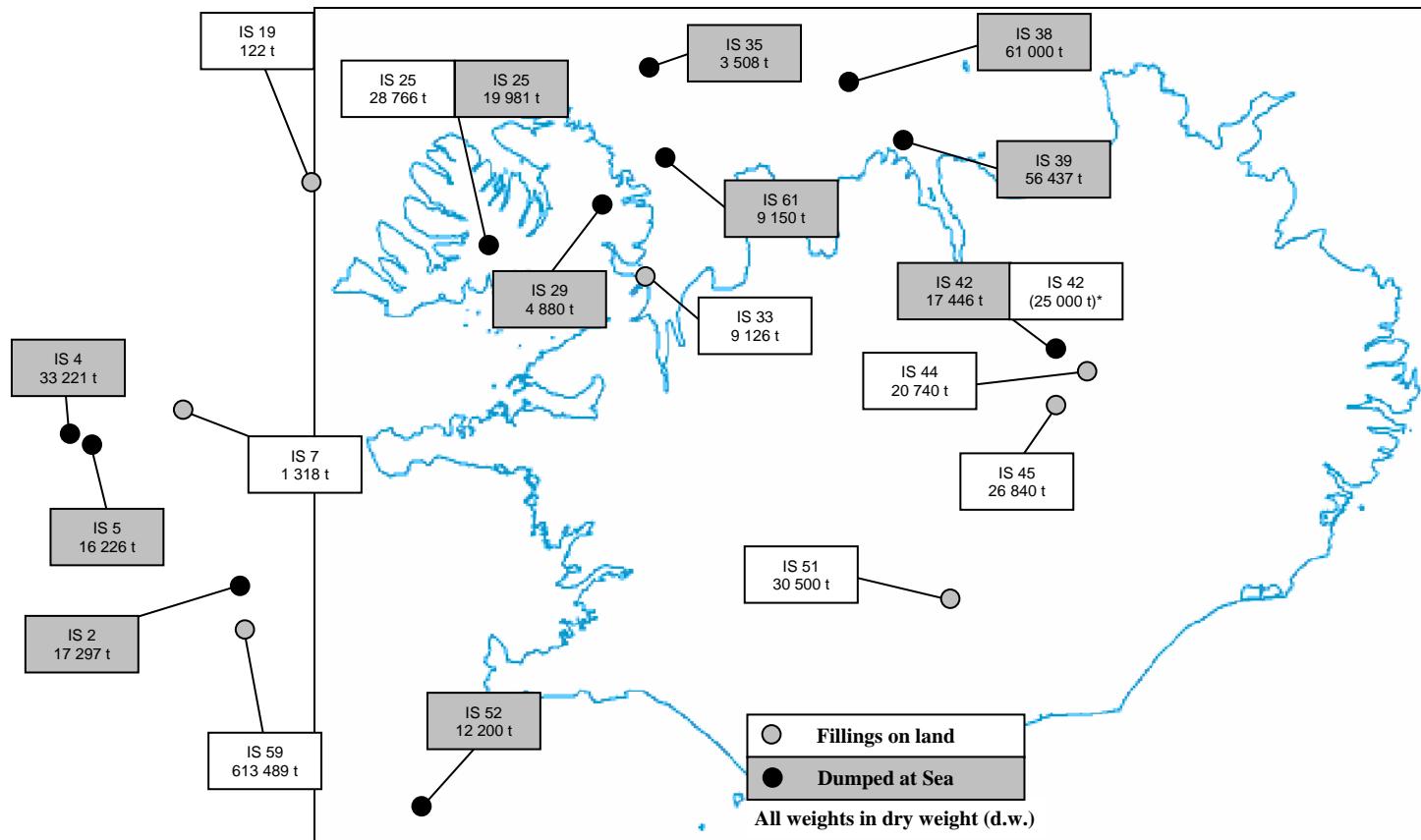


Figure 3: Disposal of dredged material in Iceland 2003



Approximate position of the dumping sites for dredged material used by Iceland in 2003
(OSPAR codes of dumping sites and weights in tonnes dry weight)

* (The amount of fillings on land for site 42 is unconfirmed)

Figure 4: Dumping sites of dredged material in Ireland in 2003

Table 1: Co-ordinates of the sites

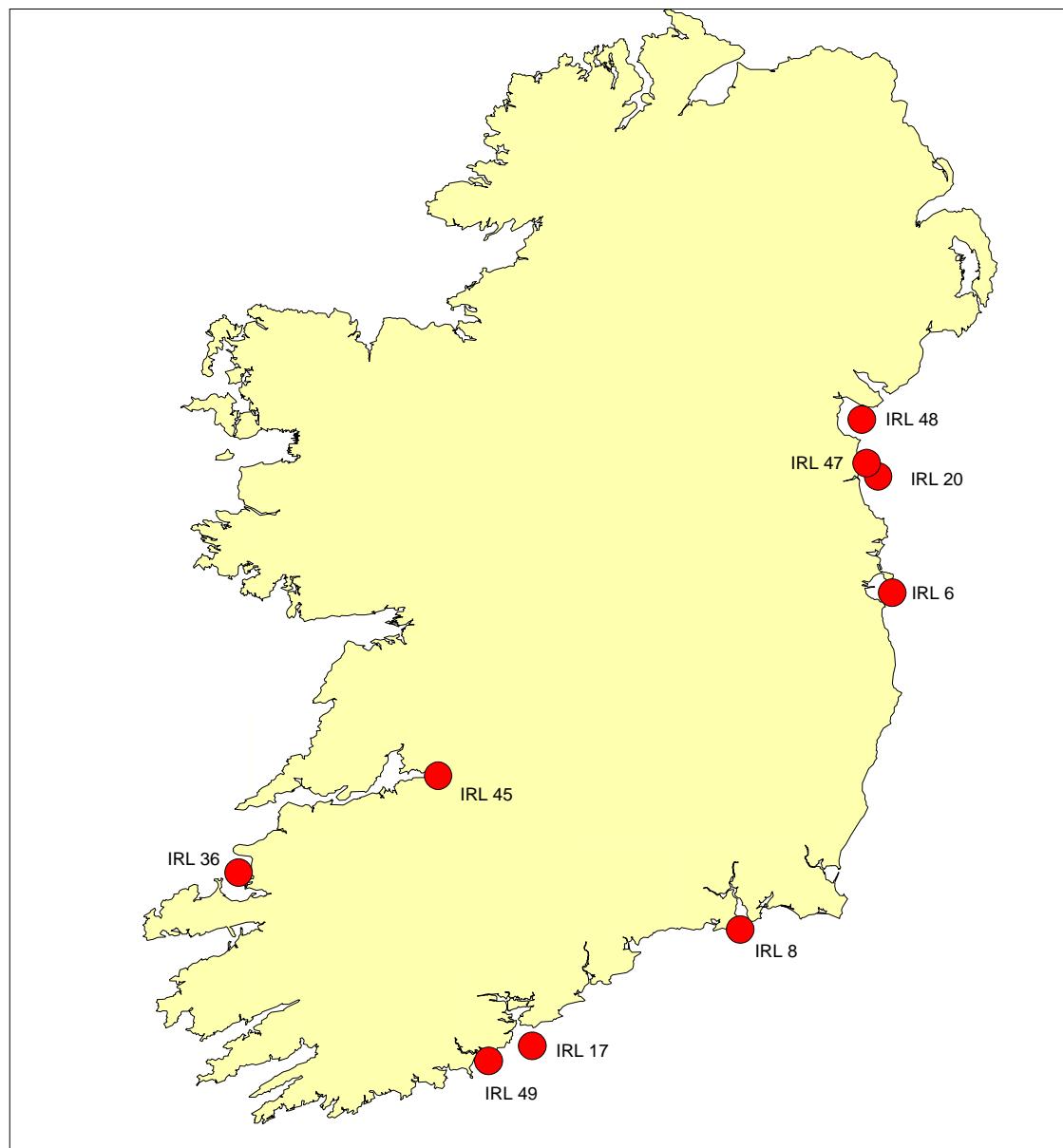


Table 1.

Site No.	Latitude	Longitude
Irl 6	53.32	-6.05
Irl 8	52.13	-6.95
Irl 17	51.72	-8.18
Irl 20	53.75	-6.18
Irl 36	52.320	-9.910
Irl 45	52.674	-8.736
Irl 47	53.764	-6.224
Irl 48	53.934	-6.215
Irl 49	51.673	-8.464

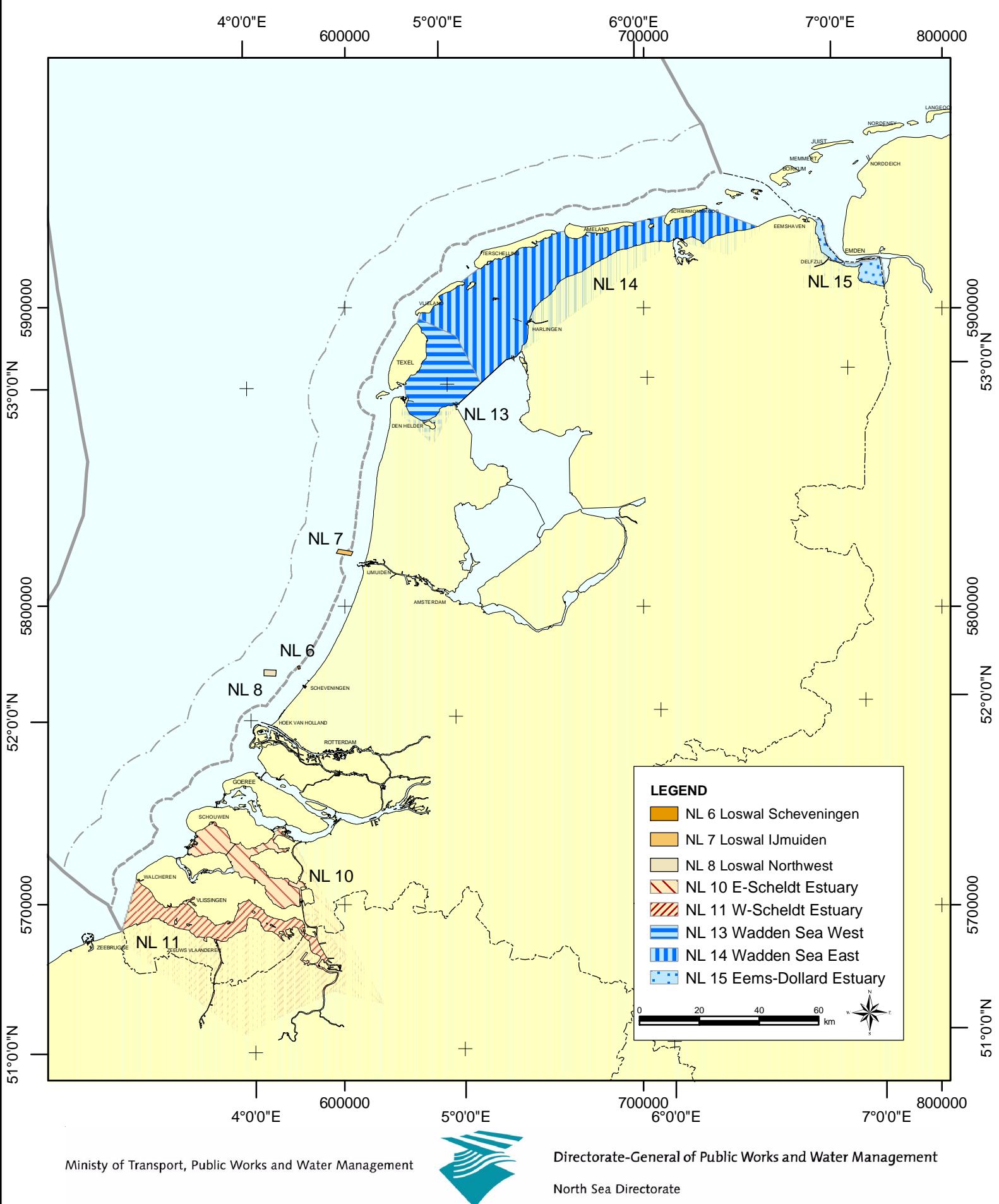


FIGURE 5: APPROXIMATE POSITION OF THE DUMPING SITES FOR DREDGED MATERIALS IN OSLO CONVENTION WATERS USED IN 2003 BY THE NETHERLANDS

Producent : W.Garib	Schaal : 1 : 1.600.000	Datum : 08 - 09 - 2004
Afdeling : AMIG	Formaat : A4 Portret	Data actueel tot : 08 - 09 - 2004
Bronvermelding : RWS Directie Noordzee	Projectie : UTM zone 31, ED50	Tekeningnummer : NZAM 2003 - 0136a

Figure 6: Dumping sites of dredged material in Norway in 2003

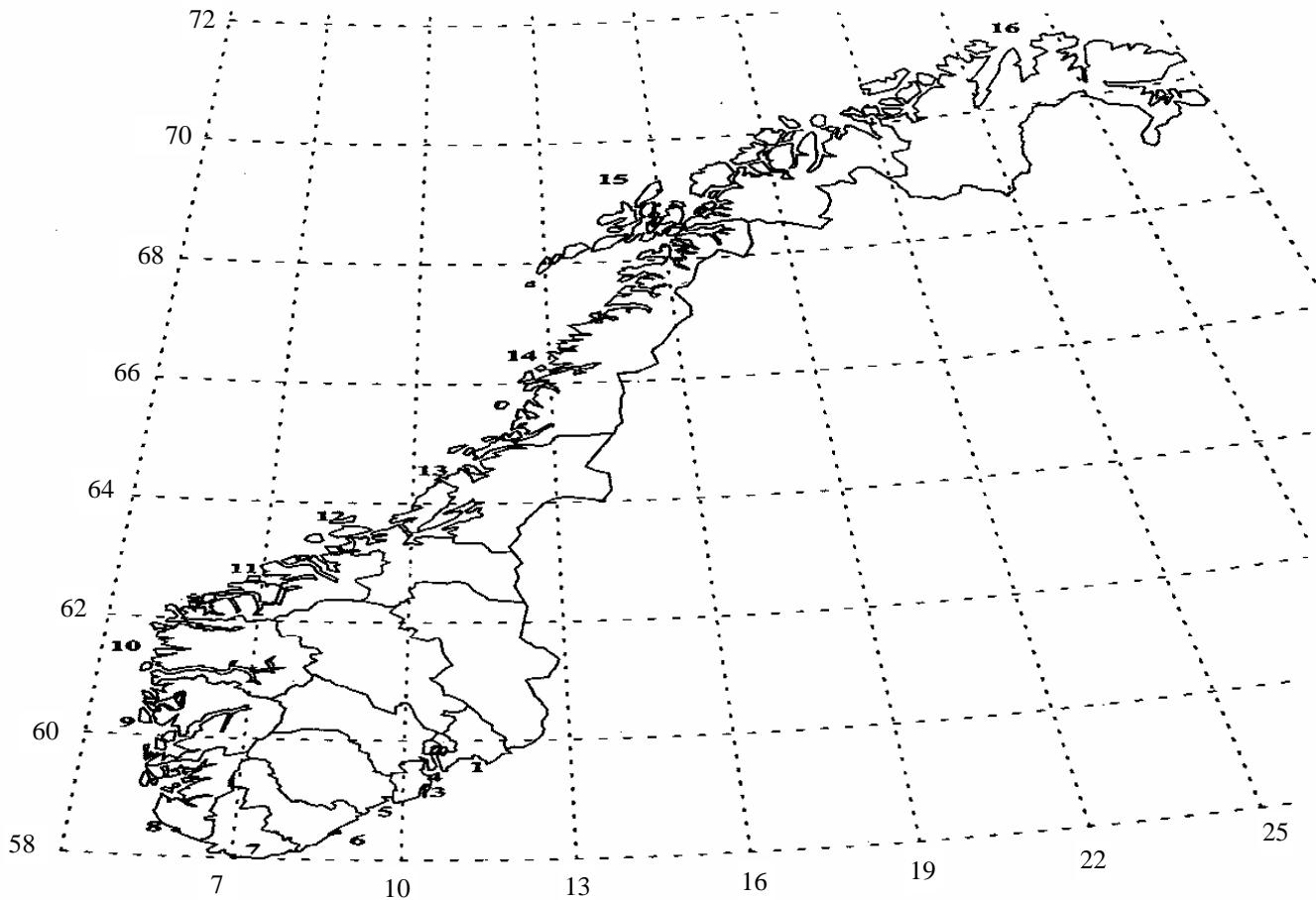
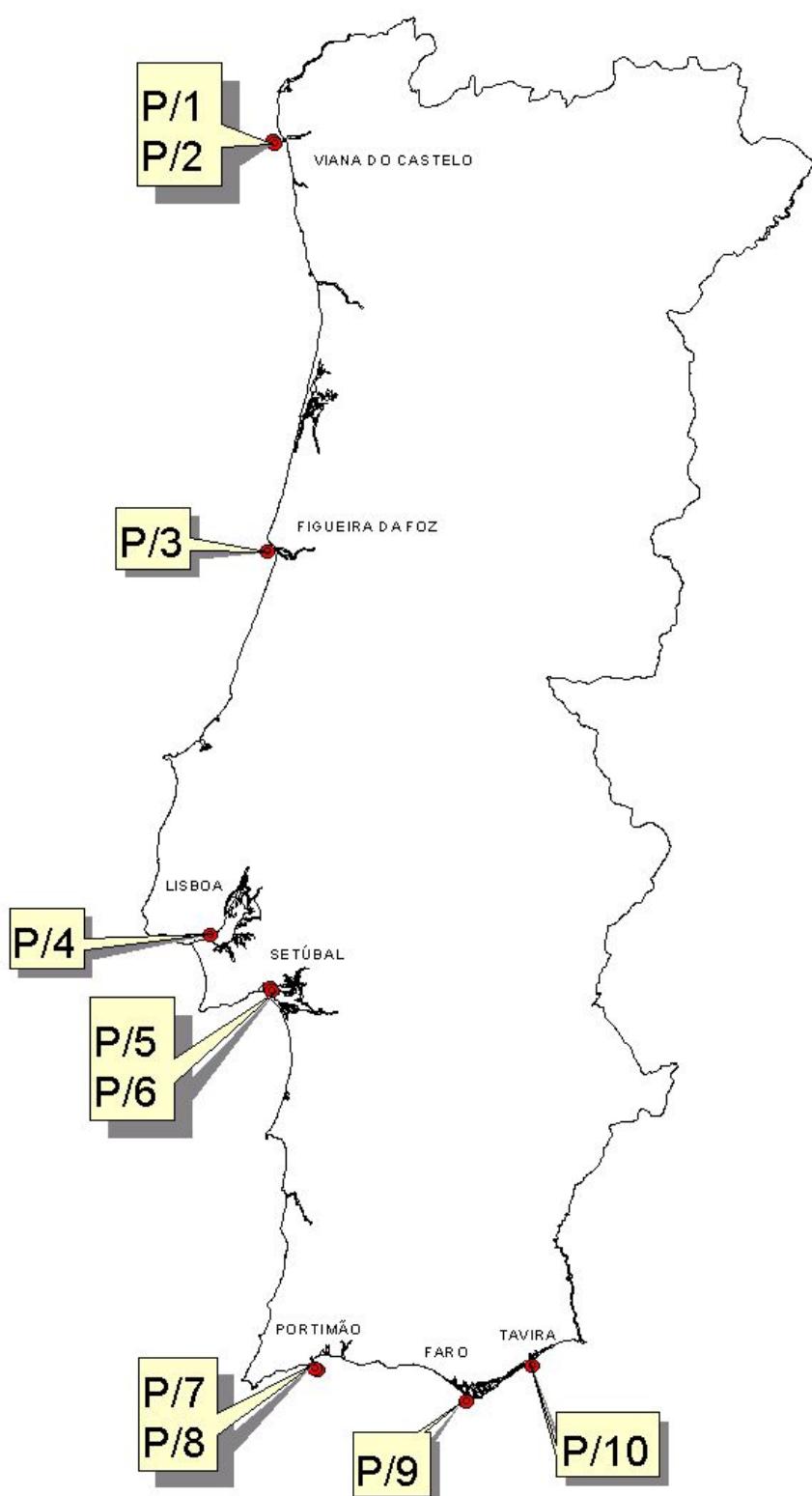


Figure 1. Map of Norway showing latitude (58-72°N, left side) and longitude (7-25°E, bottom). The different counties along the coast are indicated.

1:Østfold, 2:Akershus/Oslo, 3:Vestfold, 4:Buskerud, 5:Telemark, 6:Aust-Agder, 7:Vest-Agder, 8:Rogaland, 9:Hordaland, 10:Sogn og fjordane, 11:Møre og Romsdal, 12:Sør-Trøndelag, 13:Nord-Trøndelag, 14:Nordland, 15:Troms, 16:Finnmark.

Dredged material:	N/ 1-16
Inert material:	N/ 7-11, N 14
Fish waste	
Other waste:	N/ 16

Figure 7a: Dumping sites of dredged material in Portugal in 2003



**Figure 7b: Dumping sites of dredged material in Portugal in 2003
(Azores)**

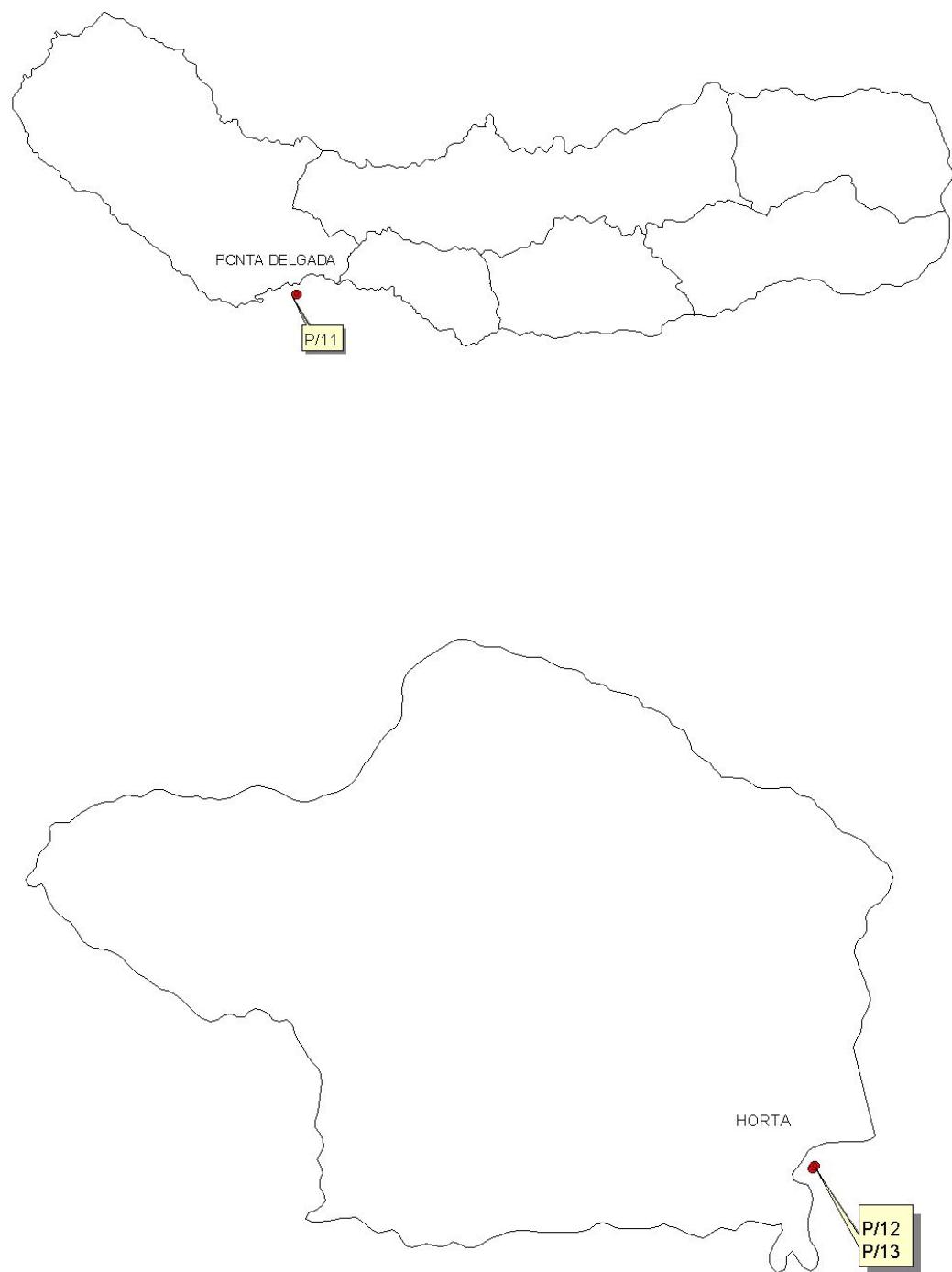


Figure 8 - Dumping sites of dredged material in the UK in 2003
a. North Eastern England

Marine disposal sites in Northeastern England. Site codes and quantities deposited in tonnes dry weight, in 2003. All tonnages are for dredged materials unless otherwise stated

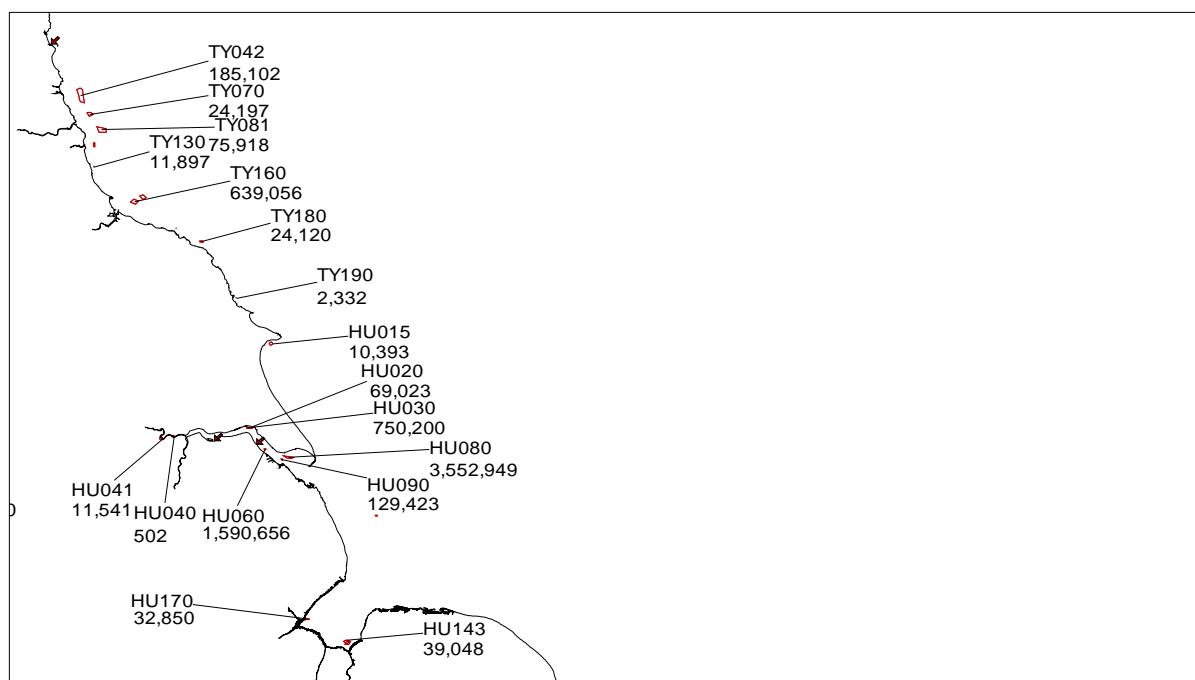


Figure 8 - Dumping sites of dredged material in the UK in 2003
b. Eastern England

Marine disposal sites in Eastern England. Site codes and quantities deposited in tonnes dry weight, in 2003. All tonnages are for dredged materials unless otherwise stated

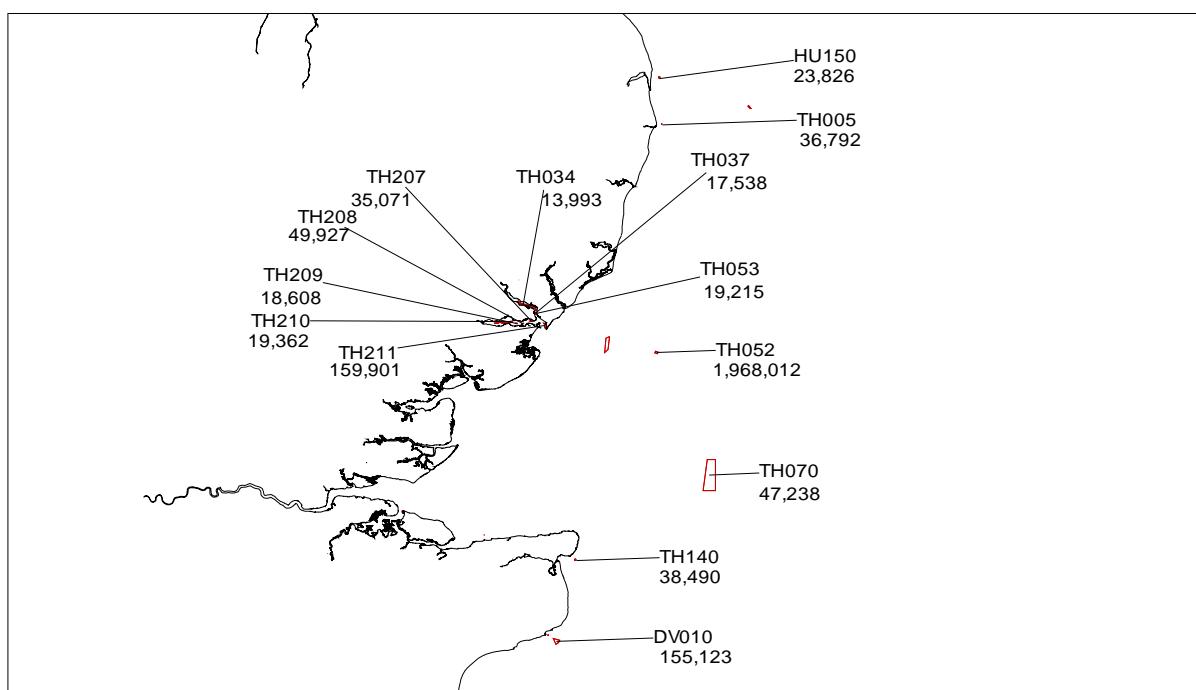


Figure 8 - Dumping sites of dredged material in the UK in 2003
c. Southern England

Marine disposal sites in Southern England. Site codes and quantities deposited in tonnes dry weight, in 2003. All tonnages are for dredged materials unless otherwise stated

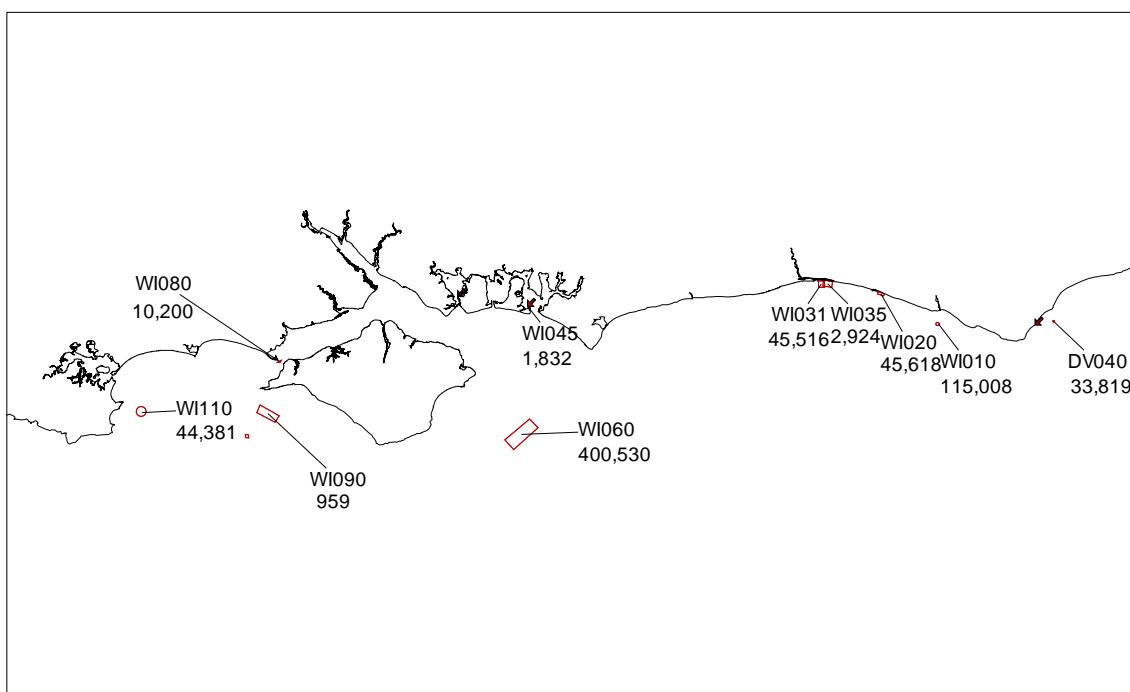


Figure 8 - Dumping sites of dredged material in the UK in 2003
d. South Western England

Marine disposal sites in Southwest England and South Wales. Site codes and quantities deposited in tonnes dry weight, in 2003. All tonnages are for dredged materials unless otherwise stated

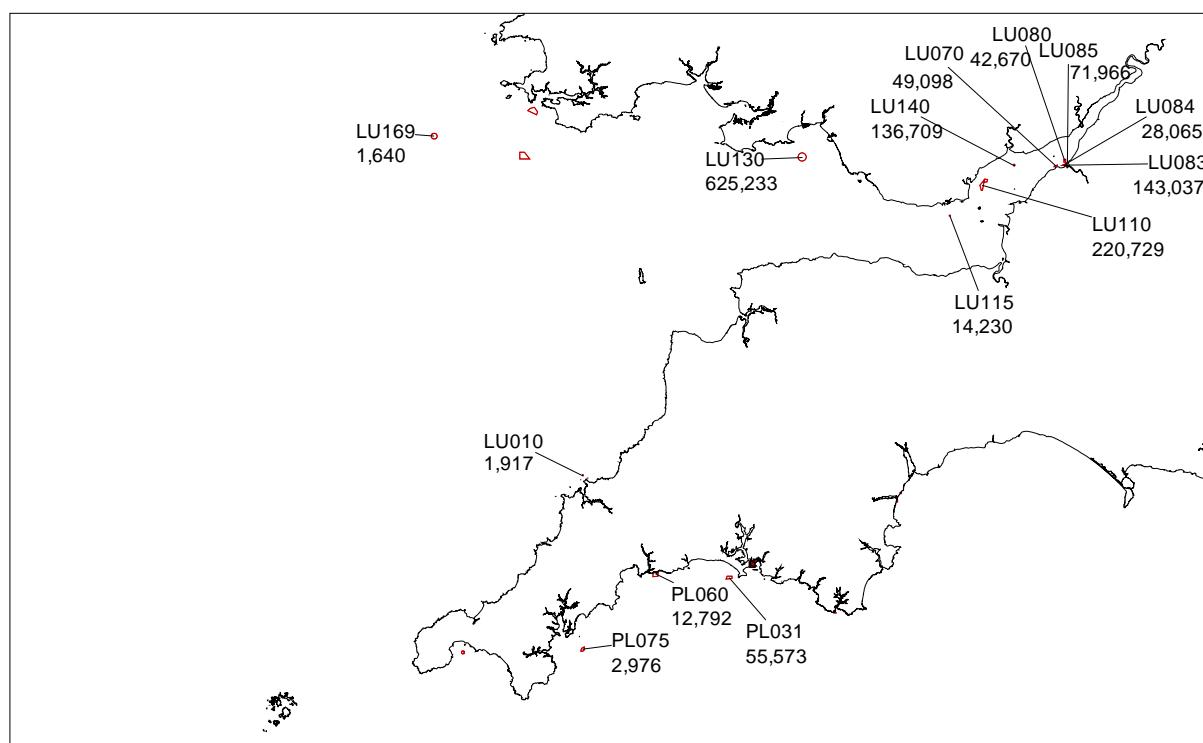


Figure 8 - Dumping sites of dredged material in the UK in 2003
e. North Western England

Marine disposal sites in the Irish Sea. Site codes and quantities deposited in tonnes dry weight, in 2003. All tonnages are for dredged materials unless otherwise stated

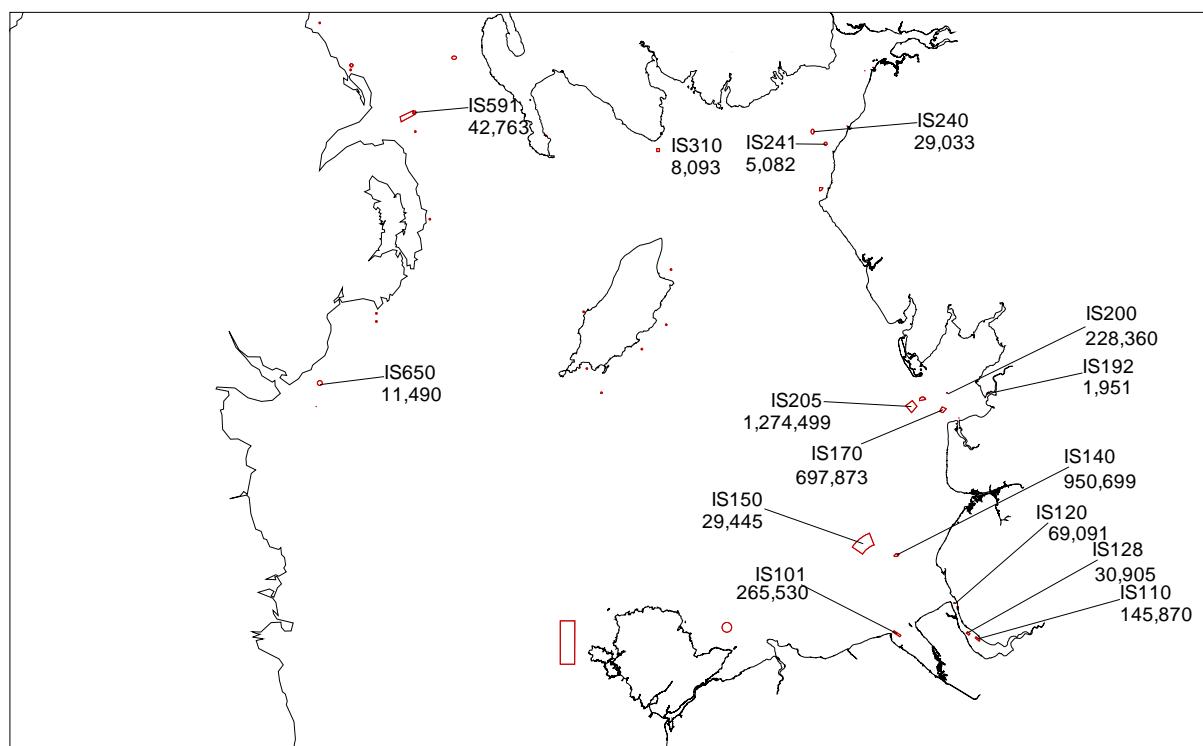


Figure 8 - Dumping sites of dredged material in the UK in 2003
f. Western Scotland

Marine disposal sites in Western Scotland. Site codes and quantities deposited in tonnes dry weight, in 2003. All tonnages are for dredged materials unless otherwise stated

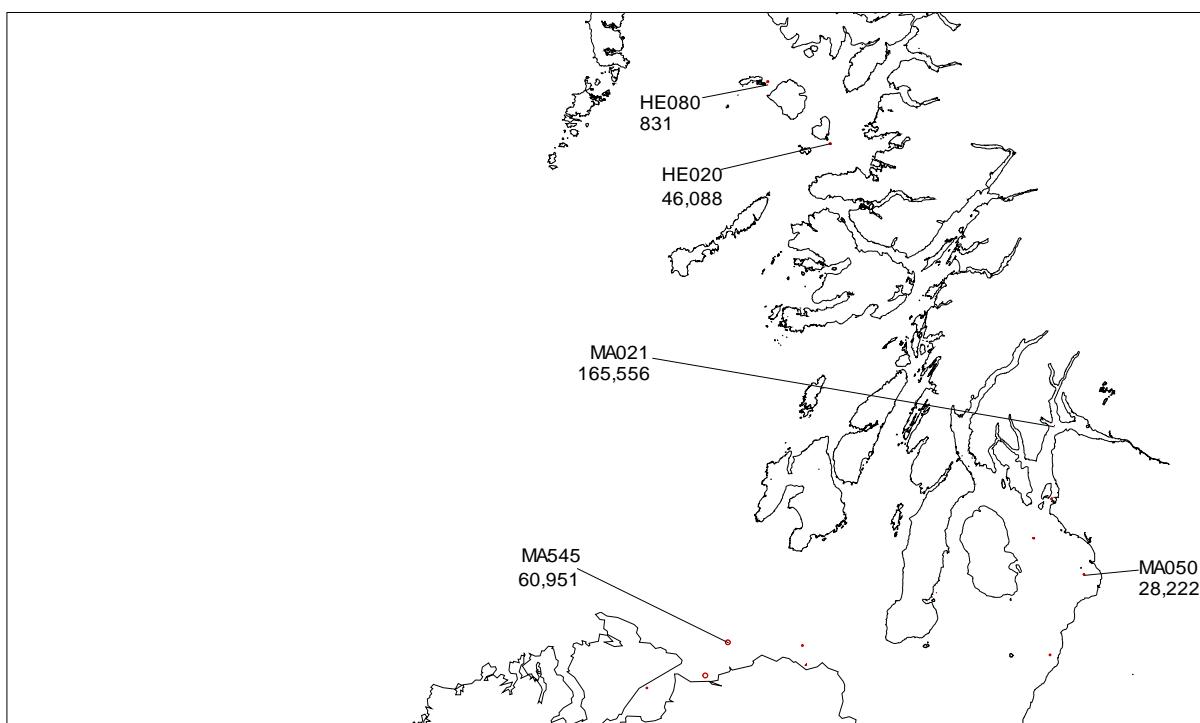


Figure 8 - Dumping sites of dredged material in the UK in 2003
g. Northern Scotland

Marine disposal sites in Northern Scotland. Site codes and quantities deposited in tonnes dry weight, in 2003. All tonnages are for dredged materials unless otherwise stated

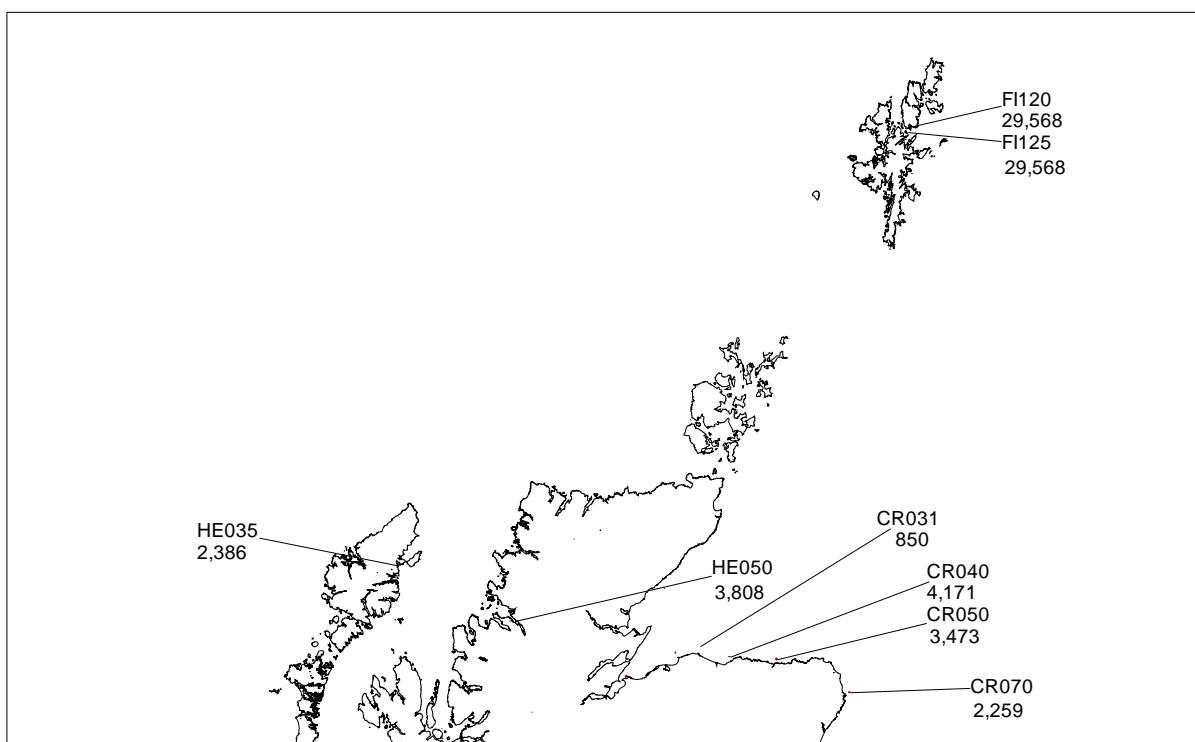


Figure 8 - Dumping sites of dredged material in the UK in 2003
h. Eastern Scotland

Marine disposal sites in Eastern Scotland. Site codes and quantities deposited in tonnes dry weight, in 2003. All tonnages are for dredged materials unless otherwise stated

