

**ANNEX 5**

**RESOLUTION MEPC.101 (48)**

**Adopted on 11 October 2002**

**IDENTIFICATION OF THE WADDEN SEA  
AS A PARTICULARLY SENSITIVE SEA AREA**

THE MARINE ENVIRONMENT PROTECTION COMMITTEE,

BEING AWARE of the ecological, social, economic, cultural, scientific and educational value of the Wadden Sea, as well as its vulnerability to damage by international shipping traffic and activities in the area and the steps taken by Denmark, Germany and the Netherlands to address that vulnerability,

NOTING that the Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas adopted under resolution A.927(22) set out procedures for the designation of particularly sensitive sea areas,

HAVING CONSIDERED the proposal from Denmark, Germany and the Netherlands to designate the Wadden Sea as a Particularly Sensitive Sea Area,

HAVING AGREED that criteria for identification of a Particularly Sensitive Sea Area provided in resolution A.927(22) are fulfilled for the Wadden Sea,

1. DESIGNATES the Wadden Sea as defined in Annexes 1, 2 and 3 to this resolution as a Particularly Sensitive Sea Area.

ANNEX 1

**DESCRIPTION OF THE PARTICULARLY SENSITIVE SEA AREA  
WADDEN SEA CO-ORDINATES**

**a. Description**

In order to avoid the risk of pollution and damage to this exceptional, highly dynamic tidal ecosystem of world importance, mariners should exercise extreme care when navigating in the area bounded by a line connecting the following geographical positions which is designated as a Particularly Sensitive Sea Area and in the adjacent area:

The PSSA Wadden Sea is bordered:

Seawards: by an offshore line defined by a set of geographical co-ordinates (see co-ordinates listed under c.),

Landwards: by the main dikes, or where the main dikes are absent, by the spring-high-tide-water line, and in the rivers, by the brackish-water limit.

The inhabited islands are excluded from the PSSA. These islands are in:

Denmark: Rømø, Mandø, Fanø

Germany:

*Schleswig-Holstein:* Pellworm, Nordstrandischmoor, Hooge, Gröde, Langeneß-Oland, Föhr, Amrum, Sylt, Norderoog, Habel, Süderoog

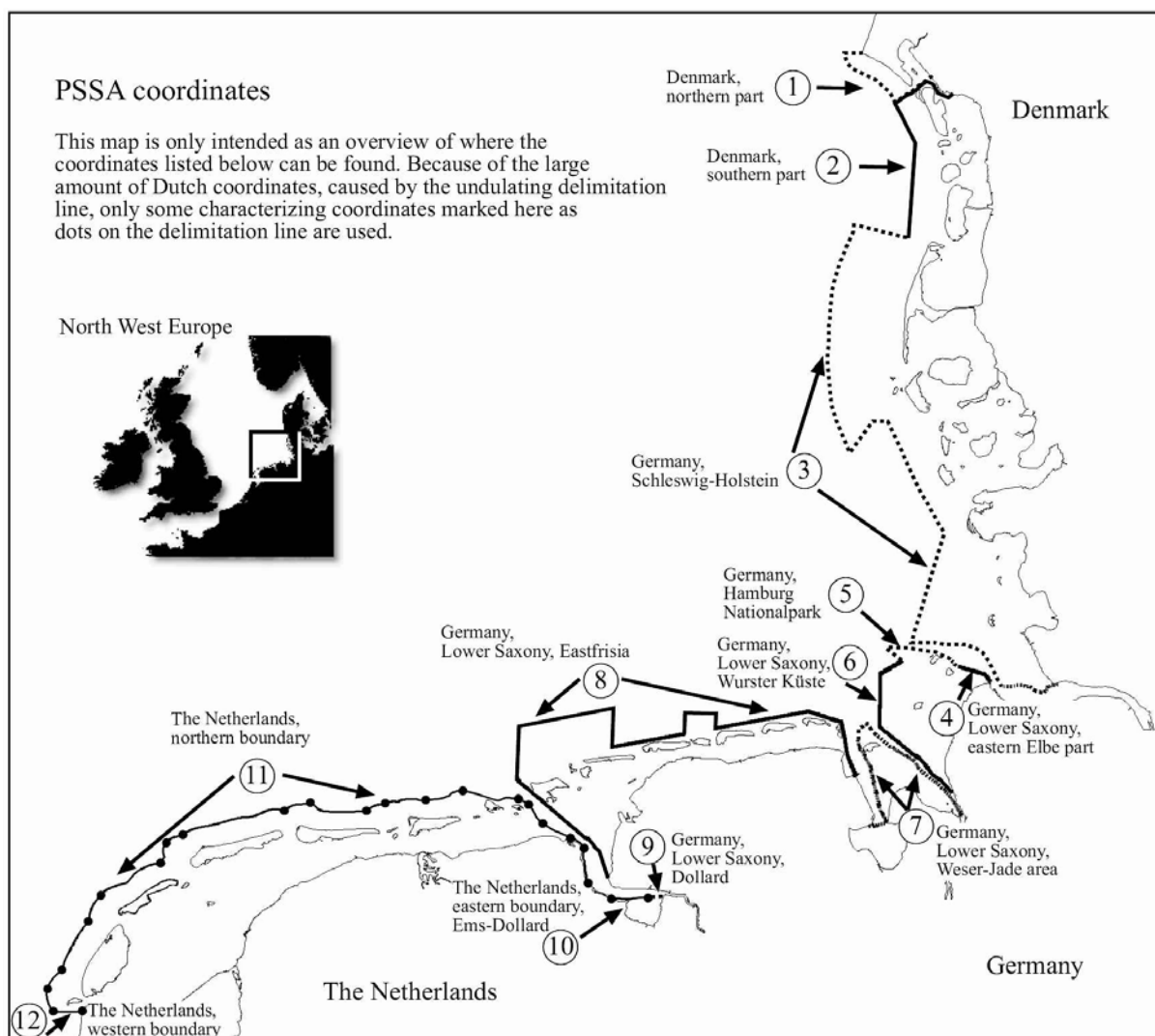
*Hamburg:* Neuwerk

*Lower Saxony:* Borkum, Juist, Norderney, Baltrum, Langeoog, Spiekeroog, Wangerooge

The Netherlands: Texel, Vlieland, Terschelling, Ameland, Schiermonnikoog

## b. Illustrative overview

The illustrative overview shows the different parts (1-12) of the offshore line of the proposed PSSA Wadden Sea. The numbers and names pointing to the different parts refer to the list of co-ordinates given in the tables under c.



**c. List of geographical co-ordinates (projection WGS84) for the bordering offshore line of the proposed PSSA Wadden Sea**

**Denmark**

The proposed PSSA in the Danish Wadden Sea is divided into a northern part and a southern part by the Esbjerg Harbour shipping lane and the outer area of Esbjerg Harbour.

**Northern part (1)**

The PSSA delimitation consists of 28 points with the following coordinates from Blaavandshuk to the shore north of Esbjerg Harbour.

**Southern part (2)**

The PSSA delimitation consists of 17 points with the following coordinates, from the shore south of Esbjerg Harbour to the borderline between Denmark and Germany territorial waters.

**1 Denmark, northern part**

No.	East	North
1	8° 04,516'	55° 33,463'
2	7° 59,00'	55° 33,48'
3	7° 59,02'	55° 33,21'
4	7° 59,06'	55° 32,99'
5	7° 59,16'	55° 32,74'
6	7° 59,28'	55° 32,50'
7	7° 59,45'	55° 32,28'
8	7° 59,67'	55° 32,04'
9	7° 59,89'	55° 31,83'
10	8° 00,15'	55° 31,62'
11	8° 00,47'	55° 31,43'
12	8° 00,82'	55° 31,26'
13	8° 01,21'	55° 31,10'
14	8° 01,57'	55° 30,95'
15	8° 01,94'	55° 30,82'
16	8° 02,34'	55° 30,71'
17	8° 08,12'	55° 29,23'
18	8° 10,46'	55° 28,14'
19	8° 11,96'	55° 27,38'
20	8° 13,716'	55° 25,593'
21	8° 16,879'	55° 26,916'
22	8° 18,104'	55° 27,228'
23	8° 19,357'	55° 27,873'
24	8° 20,793'	55° 28,608'
25	8° 21,791'	55° 29,056'
26	8° 21,915'	55° 29,109'
27	8° 22,724'	55° 29,467'
28	8° 23,635'	55° 29,866'

**2 Denmark, southern part**

No.	East	North
29	8° 30,157'	55° 27,166'
30	8° 28,490'	55° 26,420'
31	8° 25,620'	55° 27,160'
32	8° 24,904'	55° 27,866'
33	8° 24,574'	55° 28,273'
34	8° 24,151'	55° 28,614'
35	8° 22,436'	55° 28,975'
36	8° 21,929'	55° 28,776'
37	8° 21,043'	55° 28,452'
38	8° 19,581'	55° 27,724'
39	8° 18,195'	55° 27,046'
40	8° 17,016'	55° 26,805'
41	8° 13,825'	55° 25,470'
42	8° 14,080'	55° 25,220'
43	8° 19,543'	55° 19,100'
44	8° 18,900'	55° 12,300'
45	8° 18,040'	55° 03,795'

## Germany

Below are the coordinates for the seven parts (3-9) representing the delimitation of the proposed PSSA for Germany.

### 3 Germany, Schleswig-Holstein

No.	East	North
46	8° 18,040'	55° 03,795'
47	8° 02,716'	55° 06,053'
48	8° 02,618'	55° 05,647'
49	8° 02,547'	55° 05,239'
50	8° 02,395'	55° 05,011'
51	8° 01,635'	55° 03,814'
52	8° 00,960'	55° 02,982'
53	8° 00,708'	55° 02,659'
54	8° 00,471'	55° 02,332'
55	7° 59,598'	55° 01,064'
56	7° 59,354'	55° 00,692'
57	7° 59,133'	55° 00,319'
58	7° 58,572'	54° 59,317'
59	7° 58,493'	54° 59,170'
60	7° 57,853'	54° 57,968'
61	7° 57,640'	54° 57,540'
62	7° 57,451'	54° 57,102'
63	7° 57,292'	54° 56,660'
64	7° 57,032'	54° 55,858'
65	7° 56,876'	54° 55,303'
66	7° 56,765'	54° 54,745'
67	7° 56,591'	54° 53,645'
68	7° 56,531'	54° 53,169'
69	7° 56,429'	54° 52,013'
70	7° 56,279'	54° 50,539'
71	7° 56,253'	54° 50,166'
72	7° 56,209'	54° 49,265'
73	7° 56,203'	54° 48,945'
74	7° 56,209'	54° 48,625'
75	7° 56,234'	54° 48,095'
76	7° 56,218'	54° 47,848'
77	7° 55,986'	54° 46,380'
78	7° 55,921'	54° 45,823'
79	7° 55,899'	54° 45,265'
80	7° 55,925'	54° 44,707'
81	7° 55,995'	54° 44,148'
82	7° 56,732'	54° 39,682'
83	7° 56,800'	54° 39,104'
84	7° 56,918'	54° 38,529'
85	7° 57,083'	54° 37,957'
86	7° 57,295'	54° 37,390'
87	7° 57,556'	54° 36,830'
88	7° 57,674'	54° 36,597'
89	7° 57,920'	54° 36,145'
90	7° 58,197'	54° 35,697'
91	7° 58,505'	54° 35,257'
92	8° 02,338'	54° 30,063'
93	8° 08,522'	54° 35,126'
94	8° 15,406'	54° 35,126'
95	8° 17,071'	54° 32,932'
96	8° 18,308'	54° 31,208'
97	8° 19,144'	54° 30,053'
98	8° 19,462'	54° 29,614'
99	8° 20,191'	54° 28,596'

### 3 Germany, Schleswig-Holstein

No.	East	North
100	8° 20,996'	54° 27,489'
101	8° 21,858'	54° 26,289'
102	8° 22,692'	54° 25,140'
103	8° 22,956'	54° 24,747'
104	8° 23,091'	54° 24,545'
105	8° 23,624'	54° 23,878'
106	8° 25,125'	54° 22,186'
107	8° 26,205'	54° 20,980'
108	8° 28,843'	54° 18,099'
109	8° 25,467'	54° 13,309'
110	8° 23,782'	54° 10,917'
111	8° 20,322'	54° 06,008'
112	8° 20,305'	54° 05,983'
113	8° 17,718'	54° 02,317'
114	8° 17,689'	54° 02,275'
115	8° 16,859'	54° 01,099'
116	8° 16,056'	53° 59,960'
117	8° 28,660'	53° 59,936'
118	8° 28,725'	53° 59,940'
119	8° 28,826'	53° 59,940'
120	8° 28,937'	53° 59,937'
121	8° 29,048'	53° 59,941'
122	8° 29,133'	53° 59,942'
123	8° 29,221'	53° 59,948'
124	8° 29,344'	53° 59,954'
125	8° 29,410'	53° 59,952'
126	8° 29,486'	53° 59,947'
127	8° 29,584'	53° 59,938'
128	8° 29,691'	53° 59,930'
129	8° 29,788'	53° 59,923'
130	8° 29,871'	53° 59,911'
131	8° 29,965'	53° 59,905'
132	8° 30,068'	53° 59,907'
133	8° 30,156'	53° 59,905'
134	8° 30,252'	53° 59,910'
135	8° 30,337'	53° 59,910'
136	8° 30,393'	53° 59,912'
137	8° 30,457'	53° 59,913'
138	8° 30,523'	53° 59,917'
139	8° 30,585'	53° 59,921'
140	8° 30,658'	53° 59,924'
141	8° 30,725'	53° 59,930'
142	8° 30,779'	53° 59,932'
143	8° 30,837'	53° 59,929'
144	8° 30,946'	53° 59,930'
145	8° 31,057'	53° 59,942'
146	8° 31,148'	53° 59,953'
147	8° 31,276'	53° 59,965'
148	8° 31,372'	53° 59,969'
149	8° 31,475'	53° 59,972'
150	8° 31,559'	53° 59,977'
151	8° 31,638'	53° 59,982'
152	8° 31,691'	53° 59,990'
153	8° 31,759'	54° 00,005'

### 3 Germany, Schleswig-Holstein

No.	East	North
154	8° 31,833'	54° 00,008'
155	8° 31,951'	54° 00,016'
156	8° 32,046'	54° 00,021'
157	8° 32,156'	54° 00,021'
158	8° 32,250'	54° 00,021'
159	8° 32,348'	54° 00,021'
160	8° 32,441'	54° 00,024'
161	8° 32,528'	54° 00,023'
162	8° 32,613'	54° 00,016'
163	8° 32,694'	54° 00,013'
164	8° 32,750'	54° 00,013'
165	8° 32,817'	54° 00,014'
166	8° 32,869'	54° 00,013'
167	8° 32,988'	54° 00,016'
168	8° 33,090'	54° 00,022'
169	8° 33,183'	54° 00,022'
170	8° 33,280'	54° 00,021'
171	8° 33,402'	54° 00,022'
172	8° 33,502'	54° 00,019'
173	8° 33,608'	54° 00,013'
174	8° 33,680'	54° 00,005'
175	8° 33,764'	53° 60,000'
176	8° 33,856'	53° 59,994'
177	8° 33,916'	53° 59,990'
178	8° 34,007'	53° 59,985'
179	8° 34,090'	53° 59,977'
180	8° 34,167'	53° 59,968'
181	8° 34,249'	53° 59,965'
182	8° 34,389'	53° 59,948'
183	8° 34,470'	53° 59,937'
184	8° 34,580'	53° 59,913'
185	8° 34,648'	53° 59,903'
186	8° 34,717'	53° 59,885'
187	8° 34,872'	53° 59,827'
188	8° 34,980'	53° 59,793'
189	8° 35,105'	53° 59,764'
190	8° 35,179'	53° 59,746'
191	8° 35,253'	53° 59,729'
192	8° 35,329'	53° 59,709'
193	8° 35,404'	53° 59,690'
194	8° 35,465'	53° 59,677'
195	8° 35,534'	53° 59,667'
196	8° 35,699'	53° 59,630'
197	8° 35,767'	53° 59,611'
198	8° 35,919'	53° 59,580'
199	8° 36,115'	53° 59,535'
200	8° 36,254'	53° 59,504'
201	8° 36,361'	53° 59,480'
202	8° 36,443'	53° 59,460'
203	8° 36,574'	53° 59,431'
204	8° 36,741'	53° 59,391'
205	8° 36,879'	53° 59,354'
206	8° 37,001'	53° 59,324'
207	8° 37,095'	53° 59,306'

### 3 Germany, Schleswig-Holstein

No.	East	North
208	8° 37,171'	53° 59,289'
209	8° 37,319'	53° 59,250'
210	8° 37,403'	53° 59,226'
211	8° 37,546'	53° 59,189'
212	8° 37,657'	53° 59,160'
213	8° 37,780'	53° 59,111'
214	8° 37,947'	53° 59,046'
215	8° 38,173'	53° 58,964'
216	8° 38,333'	53° 58,907'
217	8° 38,496'	53° 58,850'
218	8° 38,868'	53° 58,691'
219	8° 39,105'	53° 58,442'
220	8° 39,598'	53° 57,962'
221	8° 40,199'	53° 57,371'
222	8° 40,267'	53° 57,299'
223	8° 40,749'	53° 56,812'
224	8° 41,362'	53° 56,204'
225	8° 41,924'	53° 55,648'
226	8° 42,487'	53° 55,094'
227	8° 42,595'	53° 54,996'
228	8° 42,861'	53° 54,745'
229	8° 43,118'	53° 54,445'
230	8° 43,361'	53° 54,164'
231	8° 43,529'	53° 53,970'
232	8° 43,634'	53° 53,859'
233	8° 44,022'	53° 53,402'
234	8° 44,096'	53° 53,300'
235	8° 44,185'	53° 53,302'
236	8° 44,265'	53° 53,313'
237	8° 44,347'	53° 53,318'
238	8° 44,443'	53° 53,318'
239	8° 44,514'	53° 53,316'
240	8° 44,591'	53° 53,312'
241	8° 44,681'	53° 53,308'
242	8° 44,744'	53° 53,305'
243	8° 44,818'	53° 53,293'
244	8° 44,898'	53° 53,278'
245	8° 44,962'	53° 53,271'
246	8° 45,039'	53° 53,264'
247	8° 45,121'	53° 53,247'
248	8° 45,196'	53° 53,241'
249	8° 45,272'	53° 53,235'
250	8° 45,356'	53° 53,231'
251	8° 45,475'	53° 53,235'
252	8° 45,570'	53° 53,239'
253	8° 45,699'	53° 53,250'
254	8° 45,789'	53° 53,252'
255	8° 45,896'	53° 53,255'
256	8° 45,984'	53° 53,270'
257	8° 46,057'	53° 53,286'
258	8° 46,142'	53° 53,297'
259	8° 46,226'	53° 53,297'
260	8° 46,292'	53° 53,297'
261	8° 46,348'	53° 53,292'

### 3 Germany, Schleswig-Holstein

No.	East	North
262	8° 46,487'	53° 53,315'
263	8° 46,591'	53° 53,333'
264	8° 46,675'	53° 53,340'
265	8° 46,792'	53° 53,363'
266	8° 46,886'	53° 53,386'
267	8° 46,950'	53° 53,397'
268	8° 47,009'	53° 53,412'
269	8° 47,071'	53° 53,415'
270	8° 47,158'	53° 53,421'
271	8° 47,267'	53° 53,430'
272	8° 47,354'	53° 53,433'
273	8° 47,428'	53° 53,442'
274	8° 47,509'	53° 53,461'
275	8° 47,608'	53° 53,474'
276	8° 47,675'	53° 53,478'
277	8° 47,796'	53° 53,481'
278	8° 47,884'	53° 53,483'
279	8° 47,954'	53° 53,493'
280	8° 48,013'	53° 53,505'
281	8° 48,075'	53° 53,523'
282	8° 48,124'	53° 53,535'
283	8° 48,197'	53° 53,538'
284	8° 48,284'	53° 53,538'
285	8° 48,367'	53° 53,542'
286	8° 48,438'	53° 53,543'
287	8° 48,474'	53° 53,542'
288	8° 48,554'	53° 53,545'
289	8° 48,613'	53° 53,548'
290	8° 48,688'	53° 53,550'
291	8° 48,775'	53° 53,546'
292	8° 48,893'	53° 53,531'
293	8° 48,987'	53° 53,515'
294	8° 49,064'	53° 53,501'
295	8° 49,153'	53° 53,484'
296	8° 49,260'	53° 53,470'
297	8° 49,326'	53° 53,468'
298	8° 49,399'	53° 53,465'
299	8° 49,472'	53° 53,464'
300	8° 49,552'	53° 53,454'
301	8° 49,653'	53° 53,442'
302	8° 49,741'	53° 53,419'
303	8° 49,784'	53° 53,406'
304	8° 49,890'	53° 53,375'
305	8° 49,942'	53° 53,366'
306	8° 50,017'	53° 53,355'
307	8° 50,107'	53° 53,338'
308	8° 50,172'	53° 53,318'
309	8° 50,287'	53° 53,308'
310	8° 50,382'	53° 53,302'
311	8° 50,449'	53° 53,306'
312	8° 50,553'	53° 53,314'
313	8° 50,617'	53° 53,316'
314	8° 50,684'	53° 53,313'
315	8° 50,776'	53° 53,302'

### 3 Germany, Schleswig-Holstein

No.	East	North
316	8° 50,831'	53° 53,298'
317	8° 50,914'	53° 53,288'
318	8° 50,994'	53° 53,278'
319	8° 51,087'	53° 53,269'
320	8° 51,167'	53° 53,263'
321	8° 51,271'	53° 53,253'
322	8° 51,350'	53° 53,236'
323	8° 51,433'	53° 53,218'
324	8° 51,484'	53° 53,209'
325	8° 51,584'	53° 53,184'
326	8° 51,659'	53° 53,164'
327	8° 51,753'	53° 53,137'
328	8° 51,831'	53° 53,119'
329	8° 51,910'	53° 53,105'
330	8° 51,976'	53° 53,085'
331	8° 52,042'	53° 53,066'
332	8° 52,133'	53° 53,035'
333	8° 52,201'	53° 52,992'
334	8° 52,241'	53° 52,963'
335	8° 52,273'	53° 52,942'
336	8° 52,317'	53° 52,921'
337	8° 52,412'	53° 52,884'
338	8° 52,478'	53° 52,852'
339	8° 52,557'	53° 52,821'
340	8° 52,646'	53° 52,792'
341	8° 52,711'	53° 52,767'
342	8° 52,792'	53° 52,737'
343	8° 52,868'	53° 52,716'
344	8° 52,987'	53° 52,670'
345	8° 53,078'	53° 52,645'
346	8° 53,161'	53° 52,623'
347	8° 53,276'	53° 52,591'
348	8° 53,366'	53° 52,564'
349	8° 53,482'	53° 52,524'
350	8° 53,544'	53° 52,498'
351	8° 53,660'	53° 52,459'
352	8° 53,736'	53° 52,440'
353	8° 53,813'	53° 52,410'
354	8° 53,901'	53° 52,377'
355	8° 53,937'	53° 52,364'
356	8° 54,071'	53° 52,327'
357	8° 54,156'	53° 52,311'
358	8° 54,231'	53° 52,283'
359	8° 54,333'	53° 52,256'
360	8° 54,430'	53° 52,233'
361	8° 54,506'	53° 52,207'
362	8° 54,587'	53° 52,182'
363	8° 54,629'	53° 52,162'
364	8° 54,719'	53° 52,142'
365	8° 54,787'	53° 52,144'
366	8° 54,923'	53° 52,111'
367	8° 55,032'	53° 52,091'
368	8° 55,127'	53° 52,067'
369	8° 55,256'	53° 52,034'

### 3 Germany, Schleswig-Holstein

No.	East	North
370	8° 55,373'	53° 52,008'
371	8° 55,476'	53° 51,989'
372	8° 55,543'	53° 52,011'
373	8° 55,599'	53° 52,035'
374	8° 55,641'	53° 52,062'

### 4 Germany, Lower Saxony, eastern Elbe part

No.	East	North
375	8° 41,200'	53° 53,533'
376	8° 39,550'	53° 54,917'
377	8° 32,150'	53° 56,167'

### 5 Germany, Hamburg National park

No.	East	North
378	8°30,25'	53°57,42'
379	8°26,31'	53°58,36'
380	8°21,93'	53°58,76'
381	8°18,90'	53°59,02'
382	8°13,17'	53°59,02'
383	8°12,77'	53°58,88'
384	8°17,43'	53°56,99'

### 6 Germany, Lower Saxony, Wurster Küste

No.	East	North
385	8° 11,533'	53° 54,900'
386	8° 11,533'	53° 53,200'
387	8° 11,533'	53° 46,417'
388	8° 20,150'	53° 42,333'
389	8° 23,583'	53° 40,683'
390	8° 27,683'	53° 38,133'
391	8° 30,683'	53° 36,300'

### 7 Germany, Lower Saxony, Weser-Jade area

No.	East	North
392	8° 32,883'	53° 32,317'
393	8° 33,317'	53° 32,400'
394	8° 28,667'	53° 36,750'
395	8° 20,617'	53° 41,183'
396	8° 14,433'	53° 43,317'
397	8° 09,917'	53° 45,483'
398	8° 07,950'	53° 46,967'
399	8° 05,583'	53° 45,933'
400	8° 05,583'	53° 43,717'
401	8° 09,050'	53° 40,217'
402	8° 11,817'	53° 33,283'
403	8° 13,600'	53° 31,217'
404	8° 09,950'	53° 30,717'
405	8° 08,717'	53° 30,650'

### 8 Germany, Lower Saxony, Eastfrisia

No.	East	North
406	8° 05,100'	53° 38,667'
407	8° 05,483'	53° 38,783'
408	8° 04,583'	53° 39,850'
409	8° 02,817'	53° 41,900'
410	8° 01,850'	53° 45,383'
411	8° 01,067'	53° 47,133'
412	7° 52,350'	53° 48,700'
413	7° 27,383'	53° 45,800'
414	7° 27,383'	53° 48,217'
415	7° 19,083'	53° 48,217'
416	7° 19,083'	53° 44,750'
417	7° 00,000'	53° 42,300'
418	7° 00,000'	53° 45,400'
419	7° 00,000'	53° 48,733'
420	6° 34,850'	53° 45,183'
421	6° 34,850'	53° 41,900'
422	6° 34,850'	53° 38,000'
423	6° 34,850'	53° 37,050'
424	6° 35,750'	53° 36,350'
425	6° 42,850'	53° 33,033'
426	6° 52,817'	53° 28,167'
427	6° 54,917'	53° 27,583'
428	6° 56,117'	53° 26,567'
429	6° 57,633'	53° 25,900'
430	6° 59,450'	53° 22,800'

### 9 Germany, Lower Saxony, Dollard

No.	East	North
431	7° 14,910'	53° 19,087'
432	7° 11,513'	53° 18,863'



## The Netherlands

Below are the co-ordinates representing the delimitation of the proposed PSSA for the Netherlands.

- Point 433 until 440 represent the eastern boundary, Ems Dollard, of the area (part 10).
- Point 441 until 453 represent the delimitation of the northern part of the area. It consists of the three nautical miles line from the baseline. Because this is a curved line, there are at least 1900 coordinates, but only some characterizing coordinates have been listed below. The map in annex 2 has been compiled on the basis of detailed information on the 3 nautical miles line (available from the *Dienst der Hydrografie*, the Hydrographical Service in the Hague, Netherlands) (part 11).
- Point 454 and 455 represent the western boundary of the area. It is the line from Den Helder towards the West, crossing the three nautical miles line (part 12).

### 10 The Netherlands, eastern boundary, Ems-Dollard

No.	East	North
433	7° 11,605'	53° 18,882'
434	7° 00,666'	53° 18,655'
435	6° 54,414'	53° 20,860'
436	6° 53,420'	53° 26,439'
437	6° 50,010'	53° 27,797'
438	6° 41,803'	53° 30,069'
439	6° 37,214'	53° 33,289'
440	6° 35,685'	53° 33,688'

### 11 The Netherlands, northern boundary

No.	East	North
441	6° 20,487'	53° 34,798'
442	6° 14,347'	53° 33,356'
443	6° 00,295'	53° 32,295'
444	5° 55,497'	53° 31,964'
445	5° 40,285'	53° 31,769'
446	5° 33,542'	53° 30,412'
447	5° 06,734'	53° 25,551'
448	5° 02,336'	53° 24,218'
449	5° 01,358'	53° 21,138'
450	4° 45,087'	53° 14,785'
451	4° 43,325'	53° 11,133'
452	4° 37,086'	53° 03,145'
453	4° 33,291'	52° 59,296'

### 12 The Netherlands, western boundary

No.	East	North
454	4° 43,056'	52° 56,841'
455	4° 35,221'	52° 56,564'

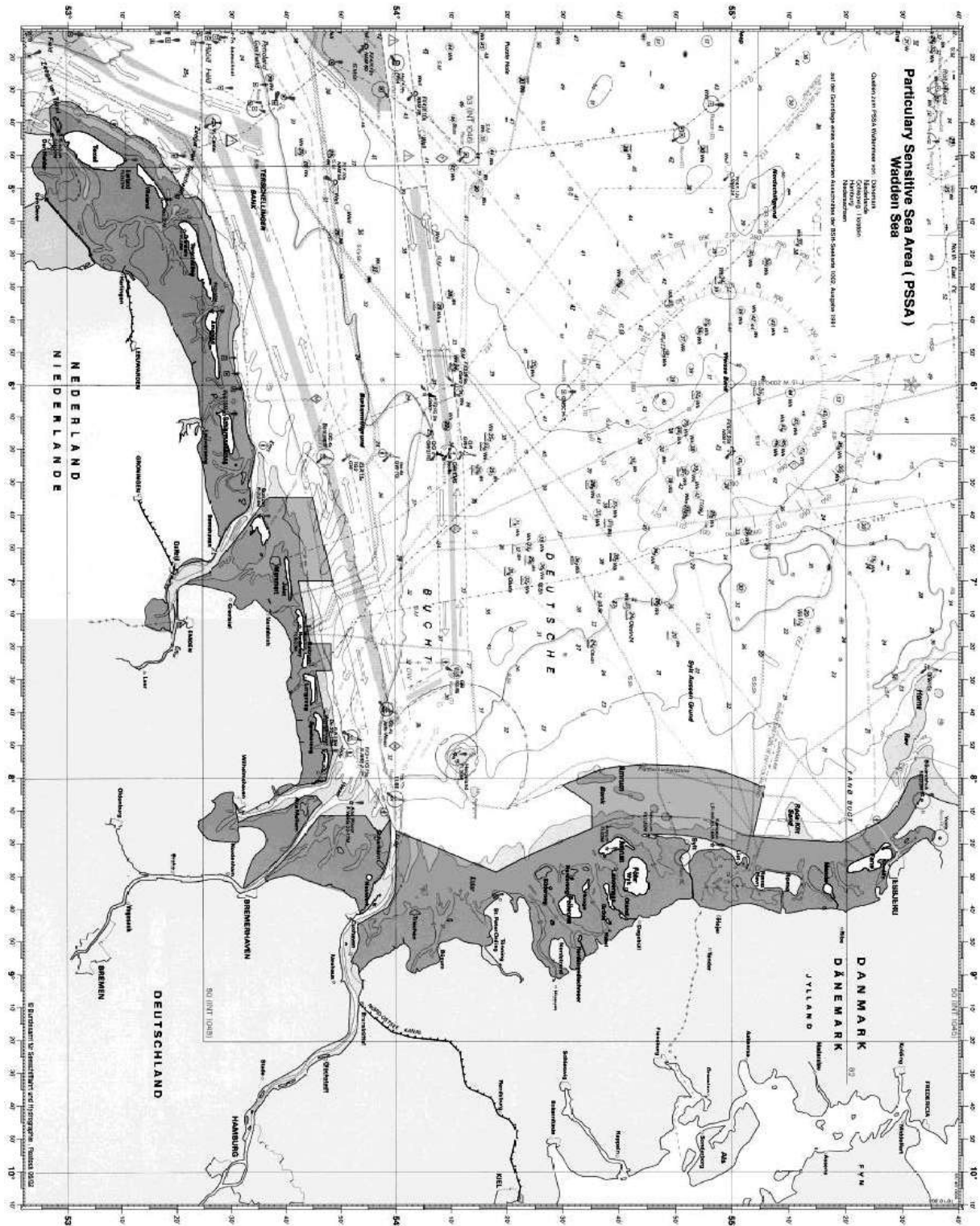
ANNEX 2

**PSSA CHART  
PROPOSED PARTICULARLY SENSITIVE SEA AREA**

**WADDEN SEA BOUNDARY**

Reference: Nautical chart from Bundesamt für Seeschifffahrt und Hydrographie, BSH, Germany.  
Nautical chart 1002, Edition 1991

*[Coloured copies of the chart will be distributed at the meeting.]*



ANNEX 3

**EXISTING MEASURES**

**Measures adopted by IMO and at the national and EC levels**

**I General measures**

**IMO measures**

The IMO has issued numerous conventions to improve maritime safety and prevent pollution from ships, for example the International Regulations for Preventing Collisions at Sea, 1972 (as amended by Resolutions A.464 (XII), A.626 (15), A.678 (16) and A.736 (18)), COLREGs and SOLAS V.

**EC measures**

Also the European Union has already issued numerous Directives corresponding to IMO measures, including e.g. directives on port State control, marine equipment, notification obligations, and on the management of ship generated waste and cargo residues. These are continually being updated and implemented into national legislation.

According to the EC Habitat Directive (Council Directive 92/43/EEC) and the EC Bird Directive (Council Directive 79/409/EEC) Member States shall list areas of Community Interest respectively Special Protection Areas. These areas constitute the Natura 2000 network. Basically, the Wadden Sea, until 3 sea miles offshore except for the main shipping routes, has been listed as habitat areas according to the Habitat Directive and as Special Protection Areas according to the Bird Directive.

**Other regional measures**

Radio navigational warnings contain information that directly affects safety of life at sea and the protection of the environment. They are issued by NAVTEX, MRCC's, VTS centers or other services.

Bilateral (NL & D) Local Rules and Traffic Regulations for the Ems estuary.

## NATIONAL MEASURES

Denmark	Germany	Netherlands
<ul style="list-style-type: none"> <li>♦ Ministerial order on transfer of bunkers in the Danish territorial sea.</li> </ul>	<ul style="list-style-type: none"> <li>♦ <b>Regulations on the navigation of Federal waterways in national parks in the North Sea area.</b></li> <li>♦ Navigable Waterways Ordinance</li> <li>♦ VTS available in certain areas.</li> <li>♦ <b>Pilotage services and Deep Sea Pilotage Services available for various ports and areas.</b></li> <li>♦ Modern aids to navigation (AIS, GPS, buoyage, lighthouses).</li> <li>♦ SAR and MRCC services available.</li> <li>♦ Emergency towing capacity available.</li> <li>♦ Deep Sea Pilotage Services available.</li> <li>♦ Agreement with private companies on keeping helicopter capacity in reserve to permit action to be taken swiftly in the case of emergencies and accidents at sea.</li> </ul>	<ul style="list-style-type: none"> <li>♦ <b>Additional Local Rules and Regulations (BPR, “Scheepvaartreglement Territoriale Zee” (STZ)).</b></li> <li>♦ VTS available in certain areas.</li> <li>♦ Pilotage services available for various ports.</li> <li>♦ Communication facilities available.</li> <li>♦ Differential GPS available.</li> <li>♦ Buoyage available in entire area.</li> <li>♦ Lighthouses available on all major islands and along the mainland coastline.</li> <li>♦ SAR services available.</li> <li>♦ Salvage tugs available. Powerful salvage tug (m.s. “WAKER”) stand-by.</li> <li>♦ Deep Sea Pilotage Services available.</li> <li>♦ Numerous RACONs are available on (offshore) platforms and buoys.</li> </ul>

## **II Collision avoidance, navigation, routing measures**

### **IMO measures**

IMO routing schemes are in place in the North Sea to simplify traffic flows to reduce the collision hazard and to keep ships carrying certain dangerous or polluting goods away from the Wadden Sea coast. Traffic Separation Schemes in the concerned area adopted by the IMO are:

- |                             |   |
|-----------------------------|---|
| - At West Hinder            | - Off Brown Ridge                                     |
| - Off Botney Ground         | - West Friesland                                      |
| - East Friesland            | - Off Friesland                                       |
| - North Hinder              | - Off Vlieland, Vlieland North and Friesland Junction |
| - Off Texel                 | - In the approaches to Hook of Holland                |
| - Jade Approach             | - German Bight Western Approach                       |
| - Terschelling-German Bight | - In the approaches to river Elbe                     |

The Deep-Water Route and Traffic Separation Scheme (TSS) from North Hinder to the German Bight via the Frisian Junction, is mandatory for the following classes of ships:

- ◆ Tankers of 10,000 GT + carrying oils as defined under Annex 1 of MARPOL 73/78;
- ◆ Ships of 5,000 GT+ carrying noxious liquid substances in bulk categories A or B of Annex II of MARPOL 73/78;
- ◆ Ships of 10,000 GT+ carrying noxious liquid substances in bulk categories C or D of Annex II of MARPOL 73/78; and
- ◆ Ships of 10,000 GT + carrying liquefied gases in bulk.

### **EC measures**

Reference to paragraph V.

### **Other regional measures**

None.

### **National measures**

None.

## **III Pilotage, port entry and departure**

### **IMO measures**

Ships using the mandatory route for tankers from the North Hinder to the German Bight are recommended to use adequately qualified deep-sea pilots in the North Sea.

## **EC measures**

*European Directive 93/75/EEC requires the Master and Operator of vessels carrying dangerous or polluting goods to report cargo details entering or leaving EC ports.*

*Dangerous goods are defined in:*

- ◆ *The International Maritime Dangerous Goods (IMDG) Code*
- ◆ *The International Gas Carrier (IGC) Code*
- ◆ *The International Bulk Carrier (IBC) Code*

*Polluting goods are defined in MARPOL Annexes I, II & III.*

European Directive 95/21/EEC (Port State Control)

## **Other regional measures**

None.

## NATIONAL MEASURES

Denmark	Germany	Netherlands
<ul style="list-style-type: none"> <li>◆ Pilotage is compulsory for the following: <ul style="list-style-type: none"> <li>- Loaded oil tankers &gt;1500 DWT;</li> <li>- Loaded chemical tankers carrying dangerous liquid chemicals covered by the IMO Chemical Code;</li> <li>- Gas carriers;</li> <li>- Vessels carrying radioactive cargoes;</li> <li>- Towing vessels of 150GRT+ navigating in dredged channels or marked navigation channels, into or past harbours or pilot stations (excluding harbour maneuvers); and</li> <li>- Tankers with uncleaned tanks not secured by inert gas.</li> </ul> </li>   <li>◆ Ships sailing to and from Danish ports shall comply with the rules laid down in the "Den danske havnelods" (The Danish Harbor Pilot book).</li>   <li>◆ Tankers have to take a pilot when entering certain ports, terminals etc.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Compulsory district pilotage for: <ul style="list-style-type: none"> <li>- Vessels with a length of 90 m or a breadth of 13 m and more</li> <li>- Tankers carrying gas/chemicals/petroleum/petroleum products in bulk, or unloaded tankers if not cleaned, degassed or completely inerted</li> </ul> </li>   <li>◆ Additional shore based pilotage: <ul style="list-style-type: none"> <li>- if visibility is reduced</li> <li>- if pilot cutter is in a sheltered position</li> <li>- if light buoys are withdrawn due to ice</li> <li>- if requested by the master</li> <li>- if ordered by the VTS-authority</li> </ul> </li>   <li>◆ Voluntary Deep sea pilotage available</li> </ul>	<ul style="list-style-type: none"> <li>◆ Radar surveillance at Den Helder, Terschelling and Schiermonnikoog (for port entry and departure and Wadden Sea traffic only).</li>   <li>◆ Harbour pilotage is compulsory for ships over 60m in length and for all vessels carrying oil, gas or chemicals. Voluntary deep-sea pilotage is available for ships required to use the North Hinder-German Bight mandatory route for tankers. Communications are normally carried out via VHF radio and ships are required to maintain a listening watch on VHF. Radar assistance is available on request in some ports. Pilotage is compulsory for Harlingen and other ports in the Wadden Sea.</li> </ul>

#### IV Vessel traffic services (VTS)

##### IMO measures

None.

##### EC measures

None.

##### Other regional measures

None.

#### NATIONAL MEASURES

Denmark	Germany	Netherlands
No VTS arrangement in the area.	<ul style="list-style-type: none"> <li>◆ VTS with permanent radar surveillance in following districts: <ul style="list-style-type: none"> <li>- VTS German Bight</li> <li>- VTS Ems</li> <li>- VTS Jade</li> <li>- VTS Weser</li> <li>- VTS Elbe</li> </ul> </li> <li>◆ Services offered: <ul style="list-style-type: none"> <li>- Information Service</li> <li>- Navigational Assistance Service</li> <li>- Traffic Organisation Service</li> </ul> </li> <li>◆ Mandatory for all vessels exceeding 50 m. of length (river Ems 40 m) and all vessels carrying certain dangerous goods</li> </ul>	<ul style="list-style-type: none"> <li>◆ VTS Den Helder: All vessels equipped with VHF are requested to participate in this system. Vessels within the area should report when entering and leaving the VTS area. Traffic surveillance is provided;</li> <li>◆ VTS Terschelling: Reporting is mandatory for all vessels entering or leaving the VTS area;</li> <li>◆ Wadden Sea Central Reporting Station: Is responsible for co-ordinating the relevant maritime authorities with regard to all incidents within the Wadden Sea area;</li> <li>◆ VTS Schiermannikoog: Provides radar surveillance services for the Terschelling-German Bight TSS with range up to 48 miles; and</li> <li>◆ VTS Delfzijl: VTS is mandatory for all vessels, which includes an information service.</li> </ul>



## **V Environmental protection measures intended to reduce or combat pollution**

### **IMO measures**

Denmark, Germany and the Netherlands are Parties to MARPOL 73/78.

The designation of the North Sea and its coastal waters west of Great Britain and Ireland (North West European Waters) as a Special Area under MARPOL Annex I. This was implemented on a national level and entered into force in all three concerned countries.

The designation of the North Sea as a special area under MARPOL Annex V. Annex V entered into force in all three States concerned.

The designation of the North Sea as a Sox Emission Control Area under Annex VI of MARPOL 73/78 (not yet in force).

The 1990 London International Convention on Pollution Preparedness, Response and Co-operation (OPRC) promotes international co-operation in the event of a major oil pollution threat between all North Sea countries. The OPRC-HNS Protocol (not yet in force) establishes a framework for international co-operation in the event of incidents involving hazardous and noxious substances.

### **EC measures**

Council Directive 93/75/ECC of 13 September 1993 concerning minimum requirements for vessels bound for or leaving Community ports and carrying dangerous or polluting goods (known as the HAZMAT Directive) has been in force since 1995.

The EC Directive 2000/59/EEC on port reception facilities for ship-generated waste and cargo residues, which entered into force in 2000, should be implemented by the concerned States by the end of 2002. It is the aim of the Directive to reduce the discharges of ship-generated waste and cargo residue into the sea, especially discharges, from ships using ports in the Community, by improving the availability and use of port reception facilities for ship-generated waste and cargo residues.

The EC Directive 1999/32/EC relating to a reduction in the sulphur content of certain liquid fuels.

As a follow up to the Erika incident, two other packages of measures are in the legislative procedure. Package 'Erika I' is completed and contains the following elements:

- further development of Port State Control;
- strengthening of provisions for and the control of Classification Societies;
- initiative for early phasing out of single hull tankers, mentioned in paragraph 8 above and being implemented in the EU by a regulation.

The proposals concerning package 'Erika II', passed on to the Council on 8 December 2000, consist of the following elements:

- setting up a common monitoring and information system for maritime traffic, which will in due course replace EC-directive 93/75/EEC;
- initiative for an additional compensation fund for damage by oil pollution;
- establishment of the European Maritime Safety Agency (EMSA).

### **Other regional measures**

Bonn Agreement: basic agreement for co-operation in dealing with Pollution of the North Sea by Oil and other Harmful Substances. Close co-operation between B, DK, F, D, NL, N, S and UK. Zones of responsibility are established under the Bonn Agreement, for co-operation in terms of aerial surveillance and dealing with pollution of the North Sea by oil and other harmful substances.

Joint Maritime Contingency Plans on Combating Oil and Other Harmful Substances agreed between D and DK resp. NL (DANGER- resp. NETHGER-Plans), concerning bilateral co-operation especially in defined exterior and quick Response Zones.

Bilateral Administrative Agreements between D and DK resp. NL on co-operation in the field of aerial surveillance (coordination of flight times and corridors, joint flights, mutual assistance by aircraft of the other party).

Bilateral arrangements also apply between the Wadden Sea states in terms of Joint Maritime Contingency Plans.

D-NL-Memorandum of Understanding on Mutual Support in the Field of North Sea Emergency Towing Capacity (March 2000): mutual assistance by emergency towing vessels in an area between the outer limitation of the VTS-schemes and the coastline, incl. approaches to the seaports.

### **National measures**

There are lots of different national measures regarding preventing and combating marine pollution.

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