Table B1 Tidal volumes (above -1.0 m OD) in the tidally influenced areas of the Blyth Estuary, and on adjacent marshes assuming no sea walls in place

Flood compartment		Volume (x 10^3 m^3) below given levels (m OD)																	
		-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50
FC1	Havenbeach Marshes	0	0	0	0	1	8	30	60	96	135	176	219	265	312	360	410	462	515
FC2	Town Marshes	0	0	25	116	237	366	498	631	765	901	1037	1174	1311	1450	1590	1730	1872	2014
FC3a	Woodsend Marshes	0	0	3	19	46	76	106	137	169	201	233	266	298	331	365	398	431	465
FC3b	Busscreek Marshes	0	0	1	12	28	49	74	101	128	156	185	214	243	273	303	333	364	394
FC4a	Lower Buss Creek	0	0	0	0	2	5	12	23	36	51	65	80	96	111	127	143	159	174
FC4b	Upper Buss Creek Marshes	0	0	1	4	30	95	186	292	413	546	689	841	1003	1172	1347	1529	1718	1913
FC4c	Upper Buss Creek Channel	0	0	0	0	0	2	5	10	19	29	40	53	66	81	95	109	124	138
FC5a	Reydon Marshes east	13	71	215	391	585	787	993	1202	1414	1628	1846	2066	2289	2514	2742	2972	3204	3439
FC5b	Reydon Marshes west	0	0	4	20	50	91	138	188	241	295	351	409	468	529	590	653	716	780
FC6	Wang Valley	0	0	1	4	23	94	216	379	566	775	1007	1262	1535	1823	2122	2431	2751	3081
FC7	Bulcamp House Marshes	0	0	0	0	0	0	0	0	1	2	4	7	12	18	25	32	41	51
FC8	Union Farm Marshes	0	0	0	0	4	38	113	198	288	382	480	581	686	792	902	1014	1129	1245
FC9	Blyford east	0	0	0	0	0	3	16	55	121	207	304	406	513	624	738	855	976	1100
FC10	Robinson's Marshes	0	0	1	10	52	108	174	244	317	393	471	553	637	724	814	906	999	1095
FC11	Tinker's Marshes	0	0	0	9	84	205	343	490	643	802	965	1133	1304	1480	1660	1843	2030	2220
FC12	Blythburgh east	0	0	0	0	0	0	0	0	0	0	1	3	5	8	12	17	23	29
FC13a	Wenhaston Marshes	0	0	0	0	3	14	68	200	382	600	842	1102	1376	1659	1952	2254	2564	2881
FC13b	Blythburgh north	0	0	0	0	0	0	0	0	0	1	2	4	5	7	10	12	15	17
FC14	Thorington Marshes	0	0	0	0	0	0	0	0	1	3	12	26	46	74	114	163	218	281
FC15*	Upper River Blyth	0	0	0	0	0	0	0	1	2	5	8	21	71	168	296	445	610	784
FC16	Sandpit Covert Marshes	0	1	3	6	19	81	165	253	342	433	526	620	715	812	910	1009	1109	1211
FC17	Angel Marshes	0	0	0	0	1	19	78	141	213	297	386	477	571	665	761	857	954	1052
FC18a	Bulcamp New Marshes	0	2	6	20	82	187	294	402	509	616	723	830	938	1045	1152	1259	1367	1474
FC18b	Bulcamp Old Marshes	0	3	8	15	45	169	325	489	659	834	1013	1195	1380	1569	1761	1955	2151	2350
FC19	Blyth River Channels	37	119	213	315	431	572	736	920	1170	1480	1813	2160	2515	2877	3244	3616	3993	4373
Totals for all tidally influenced areas:																			
1887[1]		37	119	213	316	433	579	753	953	1225	1559	1918	2293	2677	3069	3466	3868	4275	4685
2003[2]		38	124	229	357	577	1028	1599	2205	2893	3660	4460	5282	6119	6968	7828	8696	9574	10461
2008[3]		38	124	229	366	668	1289	2140	3148	4327	5652	7053	8508	10003	11531	13089	14675	16287	17924
2013-2028[4]		51	195	447	777	1304	2172	3283	4562	6018	7627	9315	11064	12856	14685	16548	18442	20365	22317
2028-2058[5]		51	195	448	781	1327	2265	3499	4941	6584	8402	10324	12328	14396	16516	18682	20890	23139	25427
2058-2108[6]		51	196	478	938	1692	2872	4380	6115	8061	10192	12442	14787	17209	19699	22252	24863	27526	30242
All areas within Blyth Estuary		51	196	479	942	1723	2969	4572	6419	8495	10771	13179	15702	18350	21119	23990	26947	29978	33077

* values partly estimated due to incomplete lidar coverage

[1] Includes FC4a, FC4c and FC19, from Ordnance Survey maps surveyed in 1887

[2] Includes FC16, FC17, FC18a, FC18b and FC19

[3] Same as [2], with addition of FC8, FC9, FC11, FC13a and FC13b

[4] Same as [3], with addition of FC4a, FC5a and FC5b, from Draft Strategy Scenario for 5-20 years

[5] Same as [4], with addition of FC6 and FC12, from Draft Strategy Scenario for 20-50 years

[6] Same as [5], with addition of FC1, FC2, FC3a, FC3b, FC7, FC10 and FC14, from Draft Strategy Scenario for 50-100 years

Table B2 Tidal areas in the tidally influenced areas of the Blyth Estuary, and on adjacent marshes assuming no sea walls in place

Flood compartment		Area (x 10^3 m^2) below given levels (m OD)																	
		-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50
FC1	Havenbeach Marshes	0	0	0	1	7	60	107	134	150	161	169	177	184	190	196	202	209	214
FC2	Town Marshes	0	10	234	454	505	520	527	532	536	540	543	546	550	553	556	559	562	565
FC3a	Woodsend Marshes	0	1	31	96	113	119	122	124	125	127	128	128	129	130	131	131	132	132
FC3b	Busscreek Marshes	0	0	24	57	74	93	104	107	110	112	114	115	116	117	118	119	120	120
FC4a	Lower Buss Creek	0	0	0	3	8	19	36	51	56	58	59	60	60	61	61	61	61	61
FC4b	Upper Buss Creek Marshes	0	1	4	36	181	321	396	446	510	551	588	627	660	687	713	739	764	788
FC4c	Upper Buss Creek Channel	0	0	0	0	5	9	15	28	38	42	46	50	52	52	52	53	53	53
FC5a	Reydon Marshes east	81	426	664	748	795	816	829	840	850	862	873	883	893	902	912	921	930	939
FC5b	Reydon Marshes west	0	2	37	92	144	177	193	203	210	217	223	229	235	239	243	246	249	252
FC6	Wang Valley	0	1	6	24	167	389	584	699	787	877	970	1049	1119	1168	1210	1252	1293	1335
FC7	Bulcamp House Marshes	0	0	0	0	0	0	0	1	3	6	10	16	21	25	29	33	36	38
FC8	Union Farm Marshes	0	0	0	3	43	253	324	349	367	383	397	409	419	429	441	451	461	469
FC9	Blyford east	0	0	0	0	3	20	101	211	314	369	398	417	434	448	462	474	487	500
FC10	Robinson's Marshes	0	0	7	108	200	242	273	285	293	305	317	329	339	349	358	367	375	382
FC11	Tinker's Marshes	0	0	0	138	414	519	563	592	614	634	651	667	684	698	712	726	740	754
FC12	Blythburgh east	0	0	0	0	0	0	0	0	0	1	5	8	12	15	17	20	23	27
FC13a	Wenhaston Marshes	0	0	0	3	20	93	389	635	809	924	1006	1068	1111	1150	1185	1220	1251	1279
FC13b	Blythburgh north	0	0	0	0	0	0	0	0	2	4	5	6	7	8	9	10	11	12
FC14	Thorington Marshes	0	0	0	0	0	0	0	1	4	22	46	69	94	133	182	208	233	275
FC15*	Upper River Blyth	0	0	0	0	0	0	1	4	7	11	20	105	298	461	558	630	678	713
FC16	Sandpit Covert Marshes	0	5	11	19	133	323	345	353	360	366	371	377	383	387	392	397	402	406
FC17	Angel Marshes	0	0	0	1	9	187	247	259	318	345	360	368	374	378	381	385	388	392
FC18a	Bulcamp New Marshes	2	10	29	107	374	421	421	421	421	421	421	421	421	421	421	421	421	421
FC18b	Bulcamp Old Marshes	5	14	23	43	273	596	642	659	686	704	718	730	744	755	766	776	786	795
FC19	Blyth River Channels	270	347	382	420	494	602	675	785	1150	1274	1341	1382	1408	1428	1448	1466	1482	1497
Totals for all tidally influenced areas:																			
1887[1]		270	347	382	423	507	630	726	864	1244	1374	1446	1492	1520	1541	1561	1580	1596	1611
2003[2]		278	375	446	589	1284	2129	2330	2476	2936	3110	3210	3278	3328	3369	3408	3444	3478	3510
2008[3]		278	375	446	733	1763	3014	3706	4263	5042	5423	5666	5846	5984	6104	6217	6326	6428	6524
2013-2028[4]		359	803	1147	1576	2711	4026	4765	5357	6159	6559	6821	7018	7172	7306	7432	7554	7668	7776
2028-2058[5]		359	804	1153	1600	2878	4414	5349	6056	6946	7437	7796	8075	8302	8489	8660	8826	8985	9138
2058-2108[6]		359	815	1448	2317	3776	5449	6482	7241	8168	8708	9122	9456	9735	9986	10229	10445	10650	10864
All areas within Blyth Estuary		359	816	1452	2353	3962	5780	6894	7719	8722	9312	9776	10238	10745	11185	11552	11866	12145	12418

* values partly estimated due to incomplete lidar coverage

[1] Includes FC4a, FC4c and FC19, from Ordnance Survey maps surveyed in 1887

[2] Includes FC16, FC17, FC18a, FC18b and FC19

[3] Same as [2], with addition of FC8, FC9, FC11, FC13a and FC13b

[4] Same as [3], with addition of FC4a, FC5a and FC5b, from Draft Strategy Scenario for 5-20 years

[5] Same as [4], with addition of FC6 and FC12, from Draft Strategy Scenario for 20-50 years

[6] Same as [5], with addition of FC1, FC2, FC3a, FC3b, FC7, FC10 and FC14, from Draft Strategy Scenario for 50-100 years

Table B3 Elevations of sea walls and embankments in the Blyth Estuary in 2002, based on Environment Agency topographic survey data.

Flood compartment	Location	EA benchmark or profile	Elevation (m OD)
FC2	Town Marshes	BL2 benchmark	3.10
FC3a	Woodsend Marshes	BL4 benchmark	2.62
FC5a	Reydon Marshes east	BL5-BL6 profile	2.43
	" "	BL7-BL8 profile	2.47
	" "	BL9-BL10 profile	2.31
FC5b	Reydon Marshes west	BL11-BL12 profile	2.46
FC8	Union Farm Marshes	BL23-BL24 profile	1.73
FC9	Blyford east	BL27-BL28 profile	1.35
FC10b	Robinson's Marshes	BL1 benchmark	2.70
	" "	BL3 benchmark	2.46
FC11	Tinker's Marshes	BL5-BL6 profile	2.08
	" "	BL7-BL8 profile	2.10
	" "	BL9-BL10 profile	2.11
	" "	BL11-BL12 profile	2.26
FC12	Blythburgh east	BL21-BL22 profile	3.08
FC13	Wenhaston Marshes	BL25-BL26 profile	1.41
	" "	BL27-BL28 profile	1.37

Table B4 Marsh levels in the Blyth Estuary, determined from an Environment Agency lidar survey flown on 14/04/2003.

Flood Compartment	Location	Marsh elevations from 2003 lidar (m OD)							
		n	Mean	Min	Max	D25	D50	D75	Stdev	CV
FC1	Havenbeach Marshes	17275	0.48	-0.29	1.59	0.39	0.46	0.55	0.18	0.38
FC2	Town Marshes	93981	-0.25	-0.91	1.27	-0.36	-0.26	-0.15	0.15	-0.60
FC3a	Woodsend Marshes	20328	-0.18	-0.66	0.82	-0.27	-0.17	-0.10	0.14	-0.81
FC3b	Busscreek Marshes	13108	-0.18	-0.51	0.46	-0.30	-0.21	-0.06	0.14	-0.80
FC4a	Lower Buss Creek	6786	0.75	0.24	1.25	0.59	0.75	0.90	0.19	0.26
FC4b	Upper Buss Creek	63389	0.29	-0.68	1.53	0.11	0.25	0.41	0.29	0.97
FC5a	Reydon Marshes east	164349	-0.53	-1.90	0.72	-0.64	-0.54	-0.42	0.22	-0.42
FC5b	Reydon Marshes west	30180	0.06	-0.56	1.82	-0.22	-0.02	0.22	0.38	6.34
FC6	Wang Valley	105963	0.72	-0.73	2.35	0.23	0.44	1.31	0.64	0.88
FC7	Bulcamp House Marshes	2322	1.41	0.60	2.02	1.16	1.44	1.67	0.31	0.22
FC8	Union Farm Marshes	70198	0.40	-0.32	1.84	0.32	0.40	0.48	0.17	0.42
FC9	Blyford east	77855	0.93	-0.30	1.54	0.73	0.94	1.14	0.27	0.29
FC10	Robinson's Marshes	49147	0.03	-0.64	1.24	-0.07	0.00	0.11	0.18	5.06
FC11	Tinker's Marshes	120239	0.12	-0.36	1.82	-0.02	0.08	0.20	0.19	1.65
FC12	Blythburgh east	1484	1.77	1.28	2.23	1.61	1.75	1.94	0.19	0.11
FC13a	Wenhaston Marshes	191998	0.80	-0.44	1.53	0.64	0.77	0.98	0.27	0.34
FC13b	Blythburgh north	642	1.18	0.86	1.52	1.09	1.18	1.26	0.13	0.11
FC14	Thorington Marshes	10756	1.30	0.21	1.63	1.18	1.34	1.47	0.22	0.17
FC15*	Upper River Blyth	14345	2.15	1.60	2.47	2.04	2.18	2.28	0.18	0.08
FC16	Sandpit Covert Marshes	76864	0.26	-0.84	0.62	0.20	0.27	0.36	0.18	0.70
FC17	Angel Marshes	68493	0.55	-0.44	1.72	0.39	0.46	0.55	0.29	0.52
FC18a	Bulcamp New Marshes	89247	0.09	-0.66	0.44	0.01	0.10	0.19	0.15	1.65
FC18b	Bulcamp Old Marshes	114259	0.25	-0.55	0.62	0.20	0.26	0.32	0.10	0.39

* not all areas included due to incomplete lidar coverage

Table B5 Marsh and mudflat elevations in the Blyth Estuary determined from Environment Agency topographic surveys in 1995 and 2002, compared with values estimated from Walker's survey of 1840.

		1995 survey by the Environment Agency (m OD)							2002 survey by the Environment Agency (m OD)							1840 survey by Walker	Difference between Walker and EA
		n	Mean	Max	Min	Stdev	Upper transition[1]	Lower transition[2]	n	Mean	Max	Min	Stdev	Upper transition	Lower transition	(m below MHWS)[3]	(m)
FC5a	Reydon Marshes east (BL5-BL6 profile)			not surveyed					6	-0.62	-0.55	-0.69	0.06		not active	1.07	-0.65
FC8	Union Farm Marshes (BL23-BL24 profile)			not surveyed					12	0.25	0.41	0.14	0.08		not active	0.53	-0.32
FC9	Blyford east (BL27-BL28 profile)			not surveyed					9	0.69	0.80	0.60	0.07		not active	not surveyed	
FC11	Tinker's Marshes (BL7-BL8 profile)			not surveyed					19	-0.06	0.05	-0.14	0.07		not active	0.53	-0.63
FC13	Wenhaston Marshes (BL27-BL28 profile)			not surveyed					4	0.68	0.74	0.65	0.04		not active	not surveyed	
FC16	Sandpit Covert Marshes (BL21-BL22 profile)	10	0.16	0.22	0.11	0.03	no saltmarsh				not surveyed					0.76	-0.18
FC17	Angel Marshes (BL19-BL20 profile)	20	0.36	0.45	0.27	0.05	no saltmarsh				not surveyed					0.61	-0.13
FC18a	Bulcamp New Marshes (BL15-BL16 profile)	17	-0.01	0.08	-0.04	0.03	no saltmarsh				not surveyed					0.91	-0.20
FC18b	Bulcamp Old Marshes (BL15-BL16 profile)	30	0.11	0.23	-0.02	0.07	no saltmarsh				not surveyed					0.69	-0.30
Active marsh	(on BL5-BL6 profile, south side)	3	0.92	0.95	0.86	0.05		0.86	6	0.97	1.20	0.83	0.17	1.20	0.83	not surveyed	
Active marsh	(on BL5-BL6 profile, north side)	5	1.15	1.38	0.93	0.17	1.23	0.93	6	1.03	1.28	0.75	0.20	1.26	0.75	not surveyed	
Active marsh	(on BL7-BL8 profile, south side)	3	0.89	1.00	0.73	0.14	1.00	0.73	3	0.97	1.06	0.91	0.08	1.06	0.91	not surveyed	
Active marsh	(on BL7-BL8 profile, north side)	2	1.19	1.36	1.02		1.36	1.02	3	1.17	1.41	1.03	0.21	1.41	1.03	not surveyed	
Active marsh	(on BL9-BL10 profile, south side)	2	0.96	1.02	0.89		1.02	0.89	3	0.93	0.99	0.88	0.06	0.99	0.88	not surveyed	
Active marsh	(on BL9-BL10 profile, between channels)	5	0.95	1.21	0.60	0.23		0.99	4	0.93	1.02	0.75	0.13		0.96	not surveyed	
Active marsh	(on BL9-BL10 profile, north side side)	3	1.08	1.40	0.86	0.28	1.40	0.86	4	0.97	1.29	0.82	0.22	1.29	0.82	not surveyed	
Active marsh	(on BL11-BL12 profile, south side)	3	1.11	1.16	1.08	0.04	1.16	1.08	4	1.04	1.18	0.92	0.11	1.18	0.92	not surveyed	
Active marsh	(on BL11-BL12 profile, north side)	4	1.08	1.13	1.06	0.04	1.06	1.03			not surveyed					not surveyed	
Active marsh	(on BL13-BL14 profile, south side)	13	0.99	1.39	0.78	0.15	1.39	0.78	10	0.92	1.08	0.66	0.12	1.08	0.66	not surveyed	
Active marsh	(on BL13-BL14 profile, north side)	5	0.88	1.07	0.65	0.15		0.65			not surveyed					not surveyed	
Active marsh	(on BL15-BL16 profile, south side)	2	1.06	1.10	1.03		1.10	1.03	3	1.05	1.18	0.96	0.11	1.18	0.96	not surveyed	
Active marsh	(on BL17-BL18 profile, south side)	24	0.91	1.11	0.58	0.12	1.11	0.70	17	0.87	1.07	0.69	0.09	1.07	0.69	not surveyed	
Active marsh	(on BL17-BL18 profile, north side)	3	0.94	1.14	0.76	0.19	1.14	0.76	3	0.73	0.94	0.47	0.24	0.94	0.47	not surveyed	
Active marsh	(on BL19-BL20 profile, south side)	8	0.83	0.94	0.57	0.12	0.94	0.57	3	0.74	0.87	0.55	0.17		0.55	not surveyed	
Active marsh	(on BL19-BL20 profile, north side)	4	0.83	0.93	0.70	0.10	0.93	0.70	4	0.75	0.89	0.58	0.13		0.58	not surveyed	
Active marsh	(on BL21-BL22 profile, south side)	7	0.88	1.32	0.71	0.21	1.32	0.72	8	0.86	1.36	0.42	0.25	1.36	0.42	not surveyed	

[1] 'Upper transition' is the transition between sea defence ('code 'SD') or grass (code 'GR') and saltmarsh (code 'SM').

[2] 'Lower transition' is the transition between saltmarsh (code 'SM') and mudflat (code 'M').
Transitions were determined on the ground at the time of the survey.

[3] Values by Walker are given relative to MHWS at the time of survey, and are compared to 1995 and 2002 values relative to present MHWS.
In all cases, marsh elevations are now lower (relative to MHWS) than they were in 1840.

Table B6 Estimated tidal velocities at the entrance of the Blyth Estuary at different times in the past, and for future scenarios, for a tide reaching 1.0 m OD.

Level	Time	Time Difference	Cross sectional	Tidal volumes assuming different flooding scenarios (m^3)						Tidal velocities at Southwold Harbour* (ms^{-1})					
(m OD)		(seconds)	area* (m^2)	1887[1]	2003[2]	2008[3]	2013-2028[4]	2028-2058[5]	2058-2108[6]	1887[1]	2003[2]	2008[3]	2013-2028[4]	2028-2058[5]	2058-2108[6]
Flood															
-0.75	0h		97												
-0.50	0h48m	2880	112	82	86	86	144	144	145	0.25	0.27	0.27	0.45	0.45	0.45
-0.25	1h15m	1620	128	94	105	105	252	253	283	0.45	0.51	0.51	1.22	1.22	1.36
0.00	1h42m	1620	144	103	128	137	330	333	460	0.44	0.55	0.59	1.41	1.43	1.97
0.25	2h5m	1380	161	117	220	301	527	546	754	0.53	0.99	1.36	2.38	2.46	3.40
0.50	2h55m	3000	177	146	451	621	867	938	1180	0.27	0.85	1.17	1.63	1.76	2.22
0.75	4h15m	4800	194	174	571	851	1111	1233	1508	0.19	0.61	0.91	1.19	1.32	1.62
1.00	6h	6300	211	200	605	1008	1279	1442	1735	0.15	0.45	0.76	0.96	1.08	1.30
Ebb															
1.00	0h		211												
0.75	1h5m	3900	194	200	605	1008	1279	1442	1735	0.26	0.80	1.33	1.69	1.90	2.29
0.50	1h55m	3000	177	174	571	851	1111	1233	1508	0.33	1.07	1.60	2.09	2.32	2.83
0.25	2h35m	2400	161	146	451	621	867	938	1180	0.38	1.17	1.61	2.25	2.43	3.06
0.00	3h15m	2400	144	117	220	301	527	546	754	0.34	0.63	0.87	1.52	1.58	2.18
-0.25	3h57m	2520	128	103	128	137	330	333	460	0.32	0.40	0.42	1.02	1.03	1.42
-0.50	4h40m	2580	112	94	105	105	252	253	283	0.32	0.36	0.36	0.87	0.87	0.98
-0.75	6h	4800	97	82	86	86	144	144	145	0.18	0.19	0.19	0.31	0.31	0.31

* cross-section taken from 2002 EA bathymetric survey for profile S1C1-SWD11 at TM504748

[1] Includes FC4a, FC4c and FC19, from Ordnance Survey maps surveyed in 1887

[2] Includes FC16, FC17, FC18a, FC18b and FC19

[3] Same as [2], with addition of FC8, FC9, FC11, FC13a and FC13b

[4] Same as [3], with addition of FC4a, FC5a and FC5b, from Draft Strategy Scenario for 5-20 years

[5] Same as [4], with addition of FC6 and FC12, from Draft Strategy Scenario for 20-50 years

[6] Same as [5], with addition of FC1, FC2, FC3a, FC3b, FC7, FC10 and FC14, from Draft Strategy Scenario for 50-100 years

Table B7 Estimated tidal velocities at the entrance of the Blyth Estuary at different times in the past, and for future scenarios, for the storm surge of 8-9 November 2007[+].

Level (m OD)	Time	Time Difference (seconds)	Cross sectional area* (m^2)	Tidal volumes assuming different flooding scenarios (m^3)						Tidal velocities at Southwold Harbour* (ms^{-1})					
				1887[1]	2003[2]	2008[3]	2013-2028[4]	2028-2058[5]	2058-2108[6]	1887[1]	2003[2]	2008[3]	2013-2028[4]	2028-2058[5]	2058-2108[6]
Flood															
-0.75	15:20		97												
-0.50	15:41	1260	112	82	86	86	144	144	145	0.58	0.61	0.61	1.02	1.02	1.02
-0.25	15:57	960	128	94	105	105	252	253	283	0.76	0.85	0.85	2.05	2.06	2.30
0.00	16:12	900	144	103	128	137	330	333	460	0.79	0.98	1.05	2.54	2.57	3.54
0.25	16:29	1020	161	117	220	301	527	546	754	0.71	1.34	1.84	3.21	3.33	4.60
0.50	16:59	1800	177	146	451	621	867	938	1180	0.46	1.41	1.95	2.72	2.94	3.70
0.75	17:37	2280	194	174	571	851	1111	1233	1508	0.39	1.29	1.92	2.51	2.78	3.40
1.00	18:30	3180	211	200	605	1008	1279	1442	1735	0.30	0.90	1.50	1.90	2.14	2.58
1.25	19:15	2700	229	272	688	1179	1457	1644	1946	0.44	1.11	1.91	2.36	2.66	3.15
1.50	19:42	1620	247	334	767	1325	1608	1817	2131	0.84	1.92	3.32	4.02	4.55	5.33
1.75	20:13	1860	265	359	800	1401	1689	1922	2250	0.73	1.63	2.85	3.43	3.90	4.57
2.00	20:51	2280	283	375	822	1455	1748	2004	2345	0.58	1.27	2.26	2.71	3.11	3.64
Ebb															
2.50	08:29		320												
2.25	09:23	3240	301	391	849	1528	1829	2120	2490	0.40	0.87	1.56	1.87	2.17	2.55
2.00	10:06	2580	283	384	837	1495	1792	2068	2422	0.53	1.15	2.05	2.46	2.83	3.32
1.75	10:42	2160	265	375	822	1455	1748	2004	2345	0.66	1.44	2.55	3.06	3.51	4.10
1.50	11:11	1740	247	359	800	1401	1689	1922	2250	0.84	1.86	3.26	3.93	4.48	5.24
1.25	11:53	2520	229	334	767	1325	1608	1817	2131	0.58	1.33	2.30	2.79	3.15	3.69
1.00	12:37	2640	211	272	688	1179	1457	1644	1946	0.49	1.23	2.11	2.61	2.94	3.49
0.75	13:12	2100	194	200	605	1008	1279	1442	1735	0.49	1.48	2.47	3.13	3.54	4.25
0.50	13:46	2040	177	174	571	851	1111	1233	1508	0.48	1.58	2.35	3.07	3.41	4.17
0.25	14:13	1620	161	146	451	621	867	938	1180	0.56	1.73	2.39	3.33	3.60	4.53

* cross-section taken from 2002 EA bathymetric survey for profile S1C1-SWD11 at TM504748

[+] the main flood tide reached a peak of 2.04 m OD on 08/11/2007, the main ebb tide receded from a peak of 2.63 m OD on 09/11/2007

[1] Includes FC4a, FC4c and FC19, from Ordnance Survey maps surveyed in 1887

[2] Includes FC16, FC17, FC18a, FC18b and FC19

[3] Same as [2], with addition of FC8, FC9, FC11, FC13a and FC13b

[4] Same as [3], with addition of FC4a, FC5a and FC5b, from Draft Strategy Scenario for 5-20 years

[5] Same as [4], with addition of FC6 and FC12, from Draft Strategy Scenario for 20-50 years

[6] Same as [5], with addition of FC1, FC2, FC3a, FC3b, FC7, FC10 and FC14, from Draft Strategy Scenario for 50-100 years

FC1 Havenbeach Marshes
FC2 Town Marshes
FC3a Woodsend Marshes
FC3b Busscreek Marshes
FC4a Lower Buss Creek
FC4b Upper Buss Creek Marshes
FC4c Upper Buss Creek Channel
FC5a Reydon Marshes east
FC5b Reydon Marshes west
FC6 Wang Valley
FC7 Bulcamp House Marshes
FC8 Union Farm Marshes
FC9 Blyford east
FC10 Robinson's Marshes
FC11 Tinker's Marshes
FC12 Blythburgh east
FC13a Wenhaston Marshes
FC13b Blythburgh north
FC14 Thorington Marshes
FC15 Upper River Blyth
FC16 Sandpit Covert Marshes
FC17 Angel Marshes
FC18a Bulcamp New Marshes
FC18b Bulcamp Old Marshes
FC19 Blyth River Channels

Landward limit is taken as the 3.5 m OD contour

Figure B1 Flooding compartments within the Blyth estuary defined in this study.

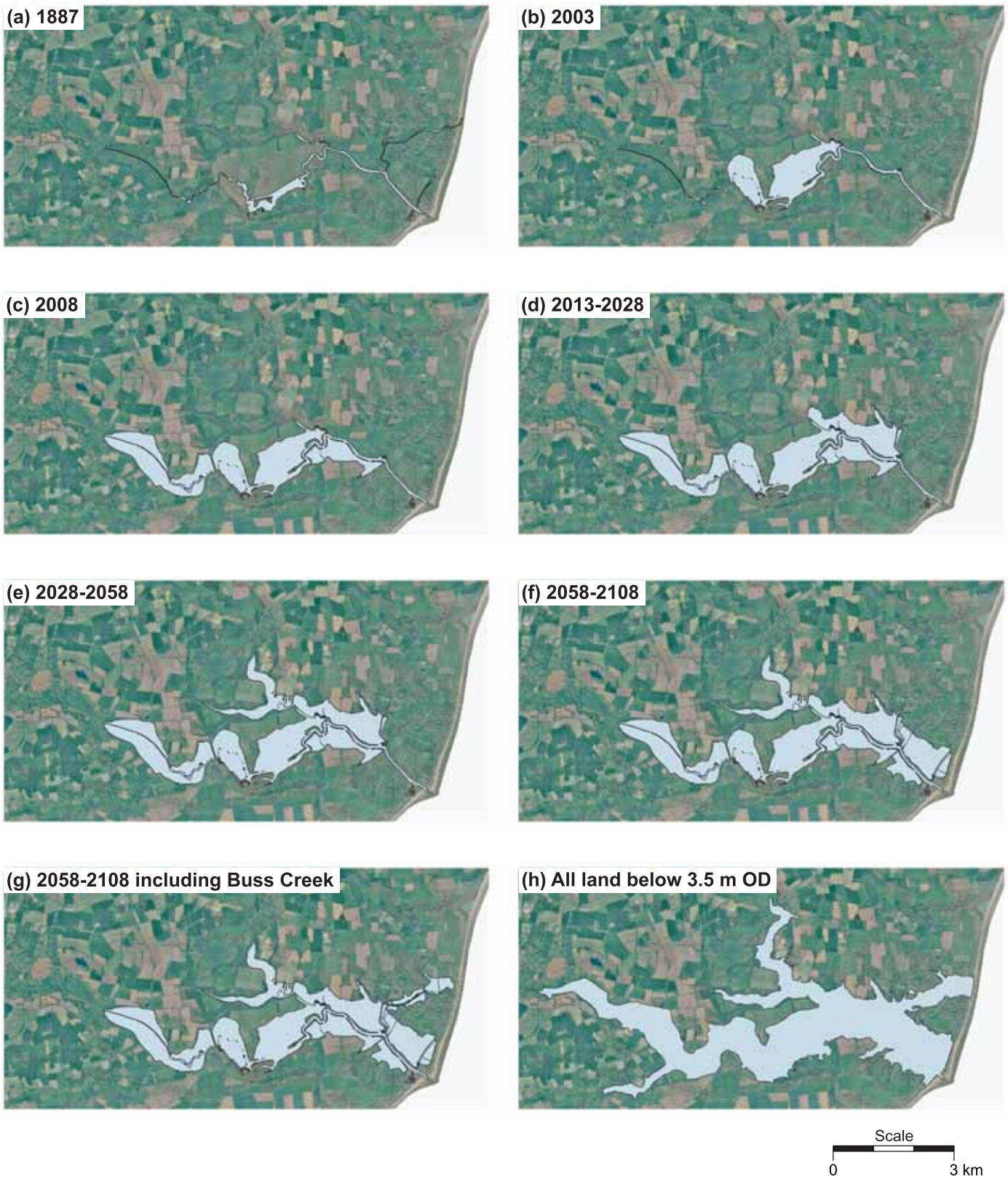


Figure B2 Changes in the tidally flooded area of the Blyth estuary below present MHW between 1887 and 2008 (a to c), projected changes taking into account different future scenarios defined in the Environment Agency Blyth Estuary FRM Strategy Technical Summary Report (2007) for the periods 2013-2028 (d), 2028-2058 (e) and 2058-2108 (f), and the total area of land which potentially could be flooded if no defences were maintained by tides equivalent to the present MHW (g) and 3.5 m OD (h).

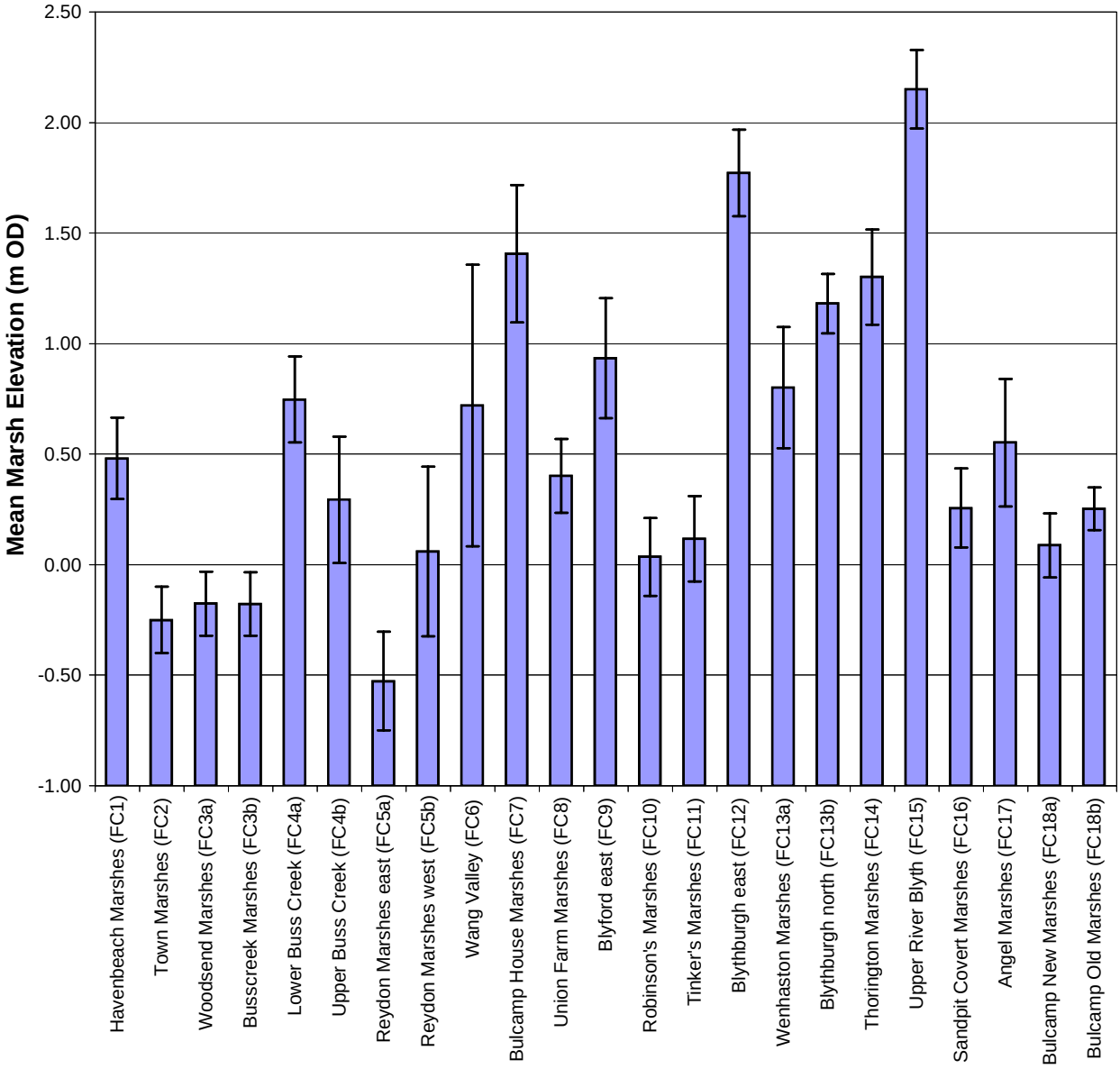


Figure B3 Mean marsh levels in the Blyth Estuary, determined from an Environment Agency lidar survey flown 14/04/2003. Error bars indicate one standard deviation in elevation across the marsh.

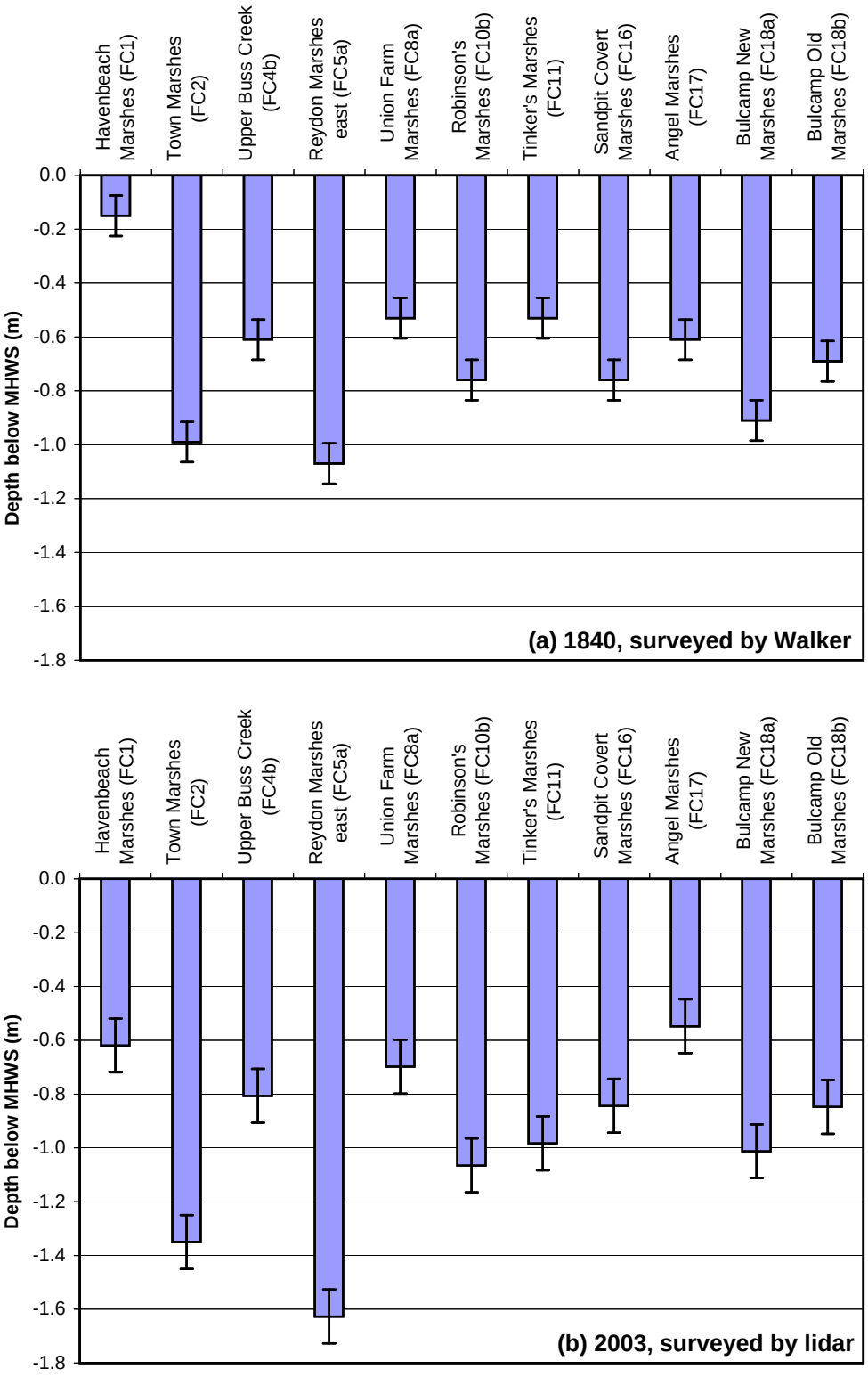
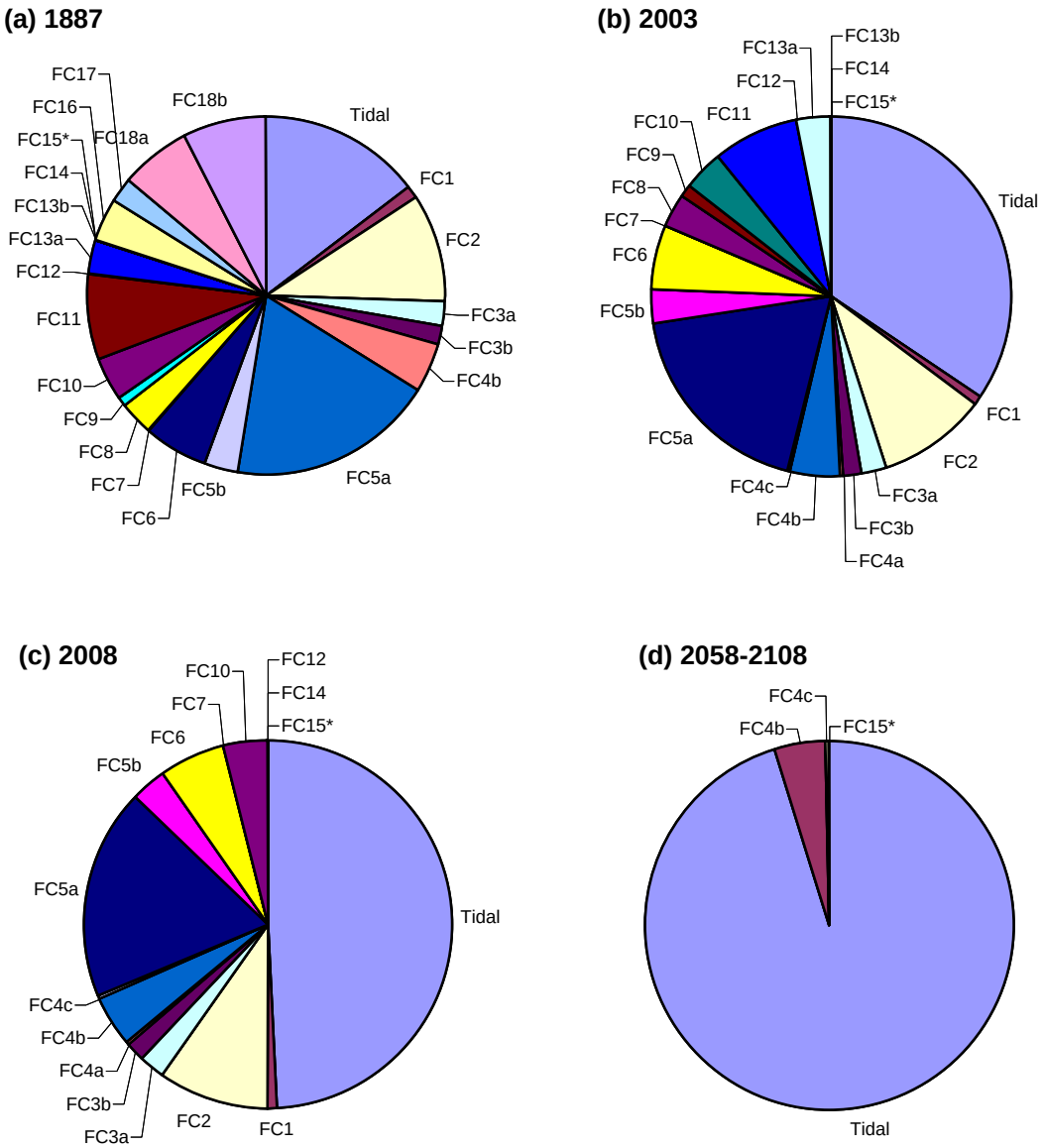
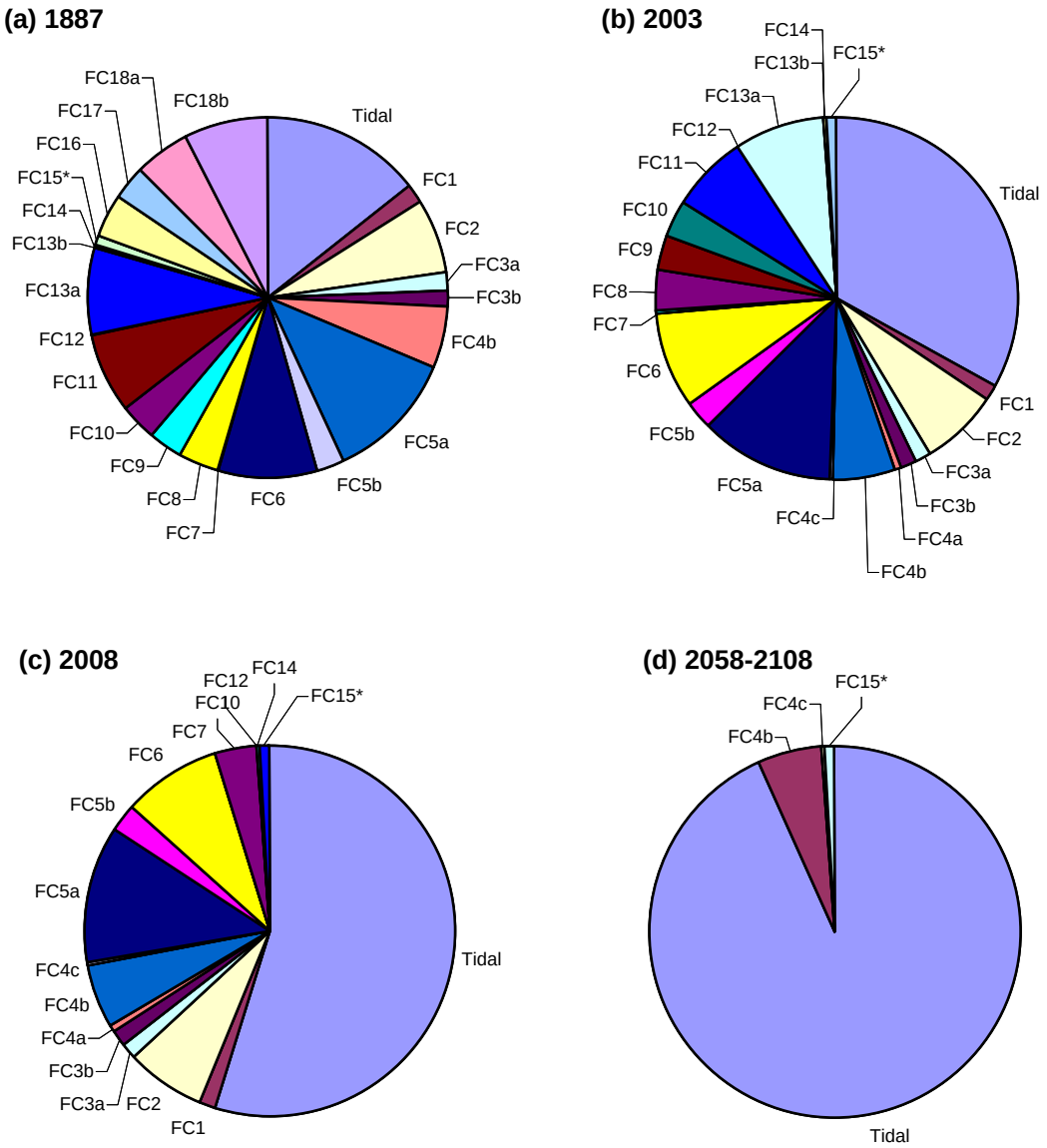


Figure B4 Comparison of marsh elevations surveyed by Walker in 1840 (a) with mean marsh elevations surveyed by Environment Agency lidar in 2003 (b). Elevations are given relative to MHWS at the time of survey (present value assumed to be 1.1 m OD).



* values partly estimated for FC15 due to incomplete lidar coverage

Figure B5 Percentage tidal volumes within the Blyth Estuary at different times in the past (a to c) and for the future scenario in 2058-2108 (d) according according to the Draft Strategy, for a tide reaching 1.0 m OD.
See Table B1 for marsh names.



* values partly estimated for FC15 due to incomplete lidar coverage

Figure B6 Percentage tidal volumes within the Blyth Estuary at different times in the past (a to c) and for the future scenario in 2058-2108 (d) according according to the Draft Strategy, for a tide reaching 2.5 m OD.
See Table B1 for marsh names.

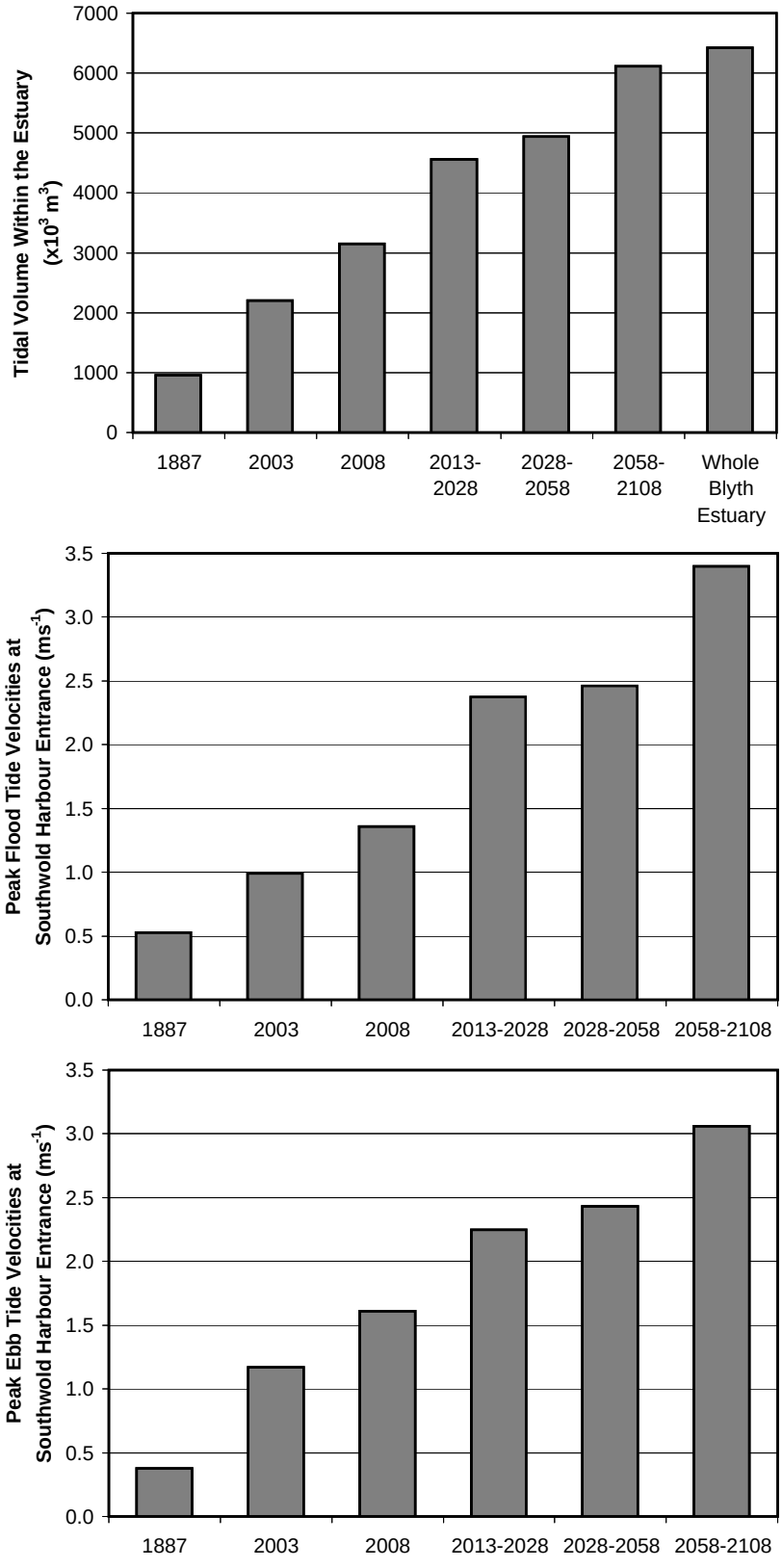


Figure B7 Estimated tidal volumes (a) within the Blyth Estuary and tidal velocities (b and c) at the entrance to Southwold Harbour at different times in the past, and for future scenarios according to the Draft Strategy, for a tide reaching 1.0 m OD.

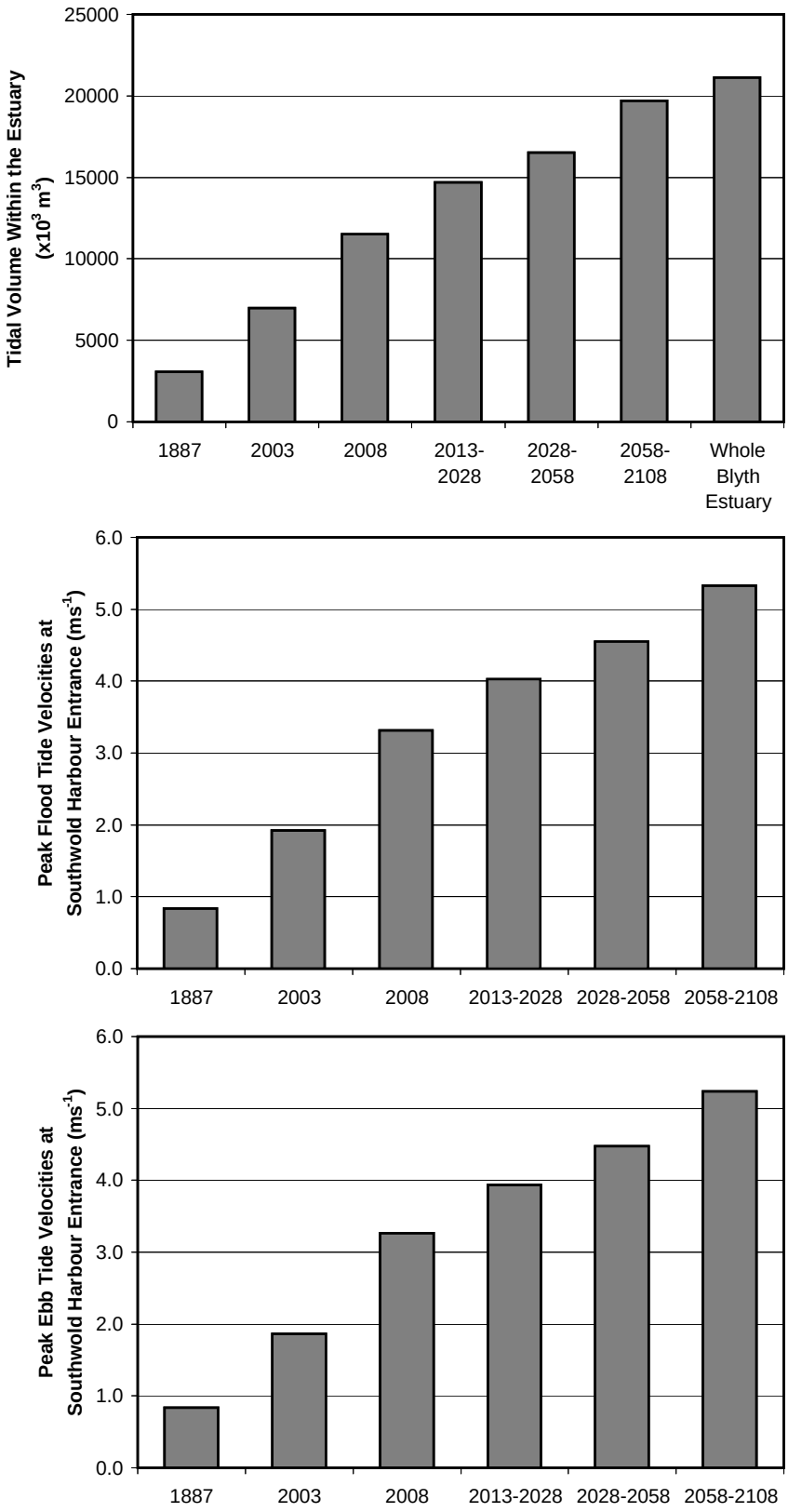


Figure B8 Estimated tidal volumes (a) within the Blyth Estuary and tidal velocities (b and c) at the entrance to Southwold Harbour at different times in the past, and for future scenarios according to the Draft Strategy, for a tide reaching 2.5 m OD.

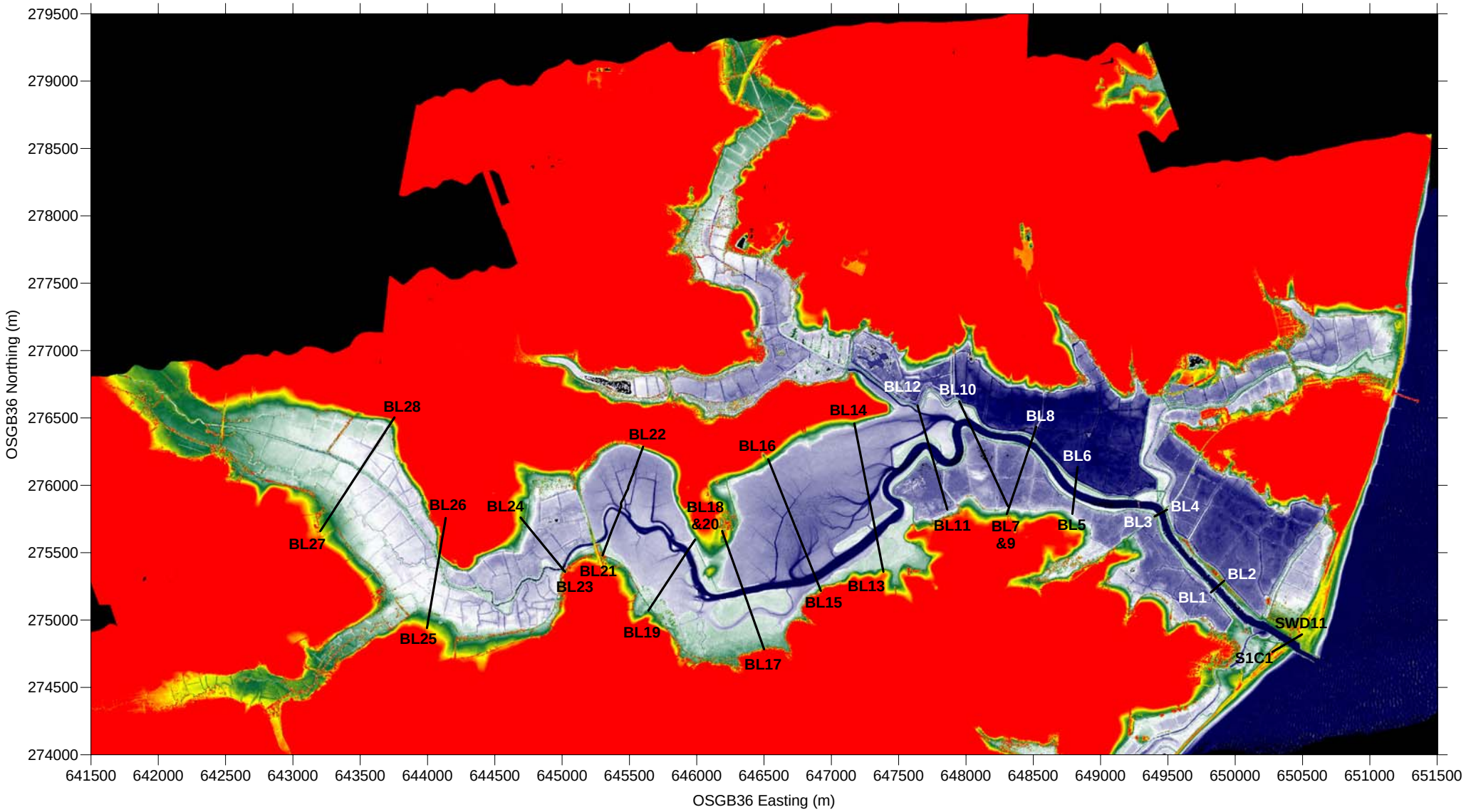


Figure B9 Lidar image of the Blyth Estuary, flown 14 April 2003, with Environment Agency profile lines.

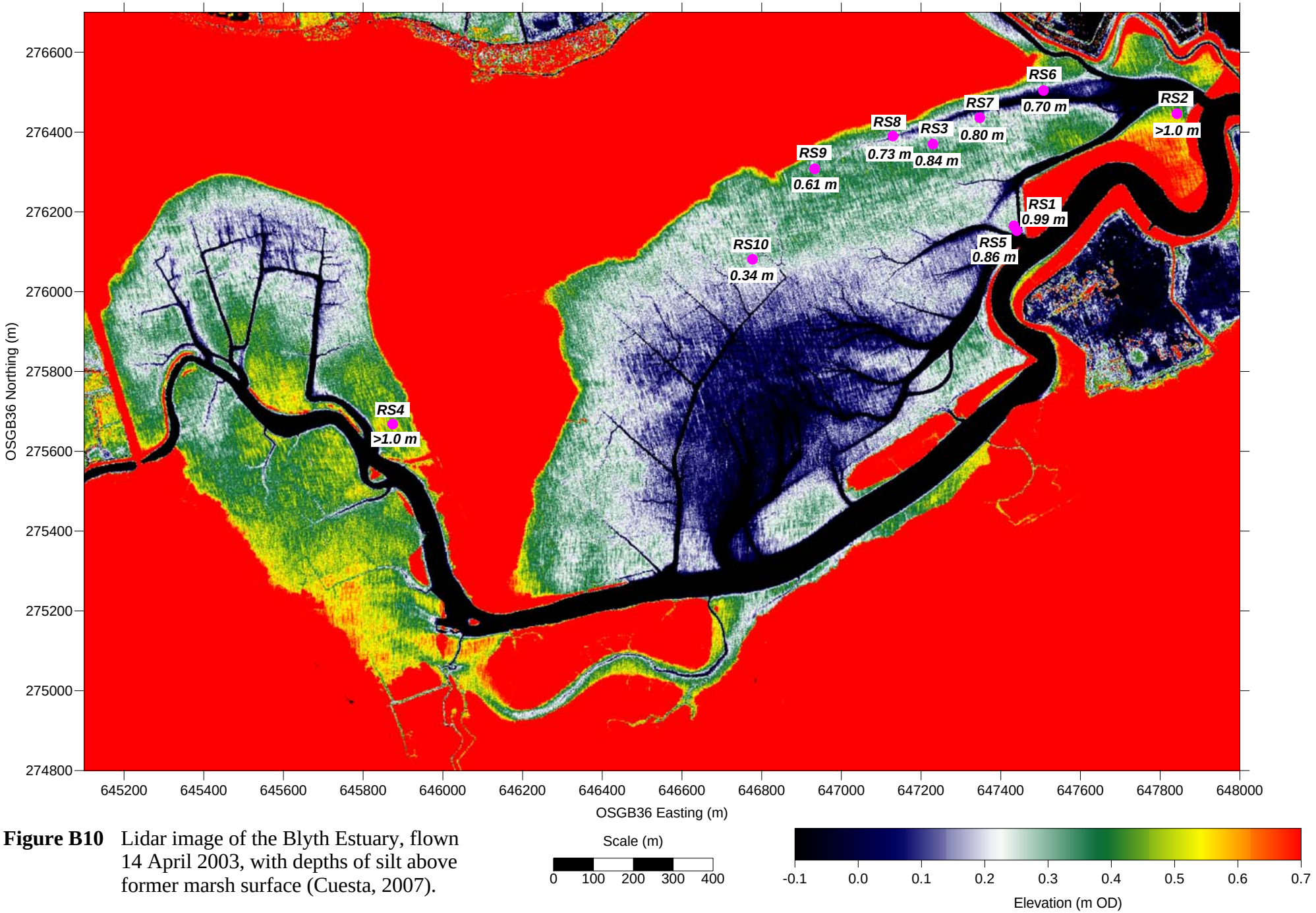


Figure B10 Lidar image of the Blyth Estuary, flown 14 April 2003, with depths of silt above former marsh surface (Cuesta, 2007).