

Appendix C

Coastal Observations - Significant Events

HERON ISLAND SPOIL DUMP - COASTAL OBSERVATION

SIGNIFICANT EVENTS

SILT PLUME $\geq 10\text{m}$ or WAVES $\geq 0.4\text{m}$ or WIND $\geq 20\text{kn}$ or RAIN $\geq 10\text{mm}$

DATE	STATION 2			H.I.A.W.S.			DHM
	SILT PLUME WIDTH m	AV. BREAKER HEIGHT m	WAVE DIR'N deg	WIND SPEED kn	WIND DIR'N deg	RAIN to 0900 mm	H.W. LEVEL m
1/12/88	N/A	N/A	N/A	23	37	0.0	2.3
2/12/88	N/A	N/A	N/A	17	12	25.6	2.3
10/12/88	N/A	0.5	55	10	42	14.6	2.9
12/12/88	N/A	N/A	N/A	3	100	13.2	2.8
13/12/88	N/A	0.5	205	N/A	N/A	N/A	2.8
14/12/88	N/A	0.6	180	N/A	N/A	N/A	2.7
15/12/88	N/A	0.4	180	18	124	0.4	2.6
16/12/88	N/A	0.6	310	22	110	2.6	2.5
17/12/88	N/A	0.4	145	N/A	N/A	N/A	2.4
18/12/88	N/A	0.7	260	14	315	73.8	2.3
21/12/88	N/A	N/A	N/A	4	22	22.8	2.9
14/1/89	N/A	N/A	N/A	24	125	2.0	2.5
15/1/89	N/A	N/A	N/A	26	127	0.0	2.3
16/1/89	N/A	N/A	N/A	20	112	0.4	2.1
25/1/89	N/A	0.8	225	16	98	16.4	2.7
26/1/89	N/A	0.3	225	21	111	3.2	2.6
27/1/89	N/A	0.6	225	19	135	0.6	2.5
4/2/89	N/A	0.4	320	14	96	0.4	2.9
5/2/89	N/A	1.0	325	13	340	207.4	3.1
6/2/89	N/A	0.5	190	19	148	5.6	3.2
8/2/89	N/A	1.0	220	19	111	8.4	3.2
13/2/89	N/A	0.0	215	22	135	0.2	2.0
14/2/89	N/A	0.0	210	23	118	0.2	1.9
15/2/89	N/A	0.0	200	23	117	0.6	2.0
16/2/89	N/A	1.0	220	23	124	0.0	2.7
17/2/89	N/A	0.3	230	22	128	0.0	2.8
18/2/89	N/A	0.5	215	18	125	0.0	2.9
25/2/89	N/A	0.0	220	22	135	4.0	2.4
26/2/89	N/A	0.0	205	22	125	3.6	2.2

DATE	STATION 2			H.I.A.W.S.			DHM
	SILT PLUME WIDTH	AV. BREAKER HEIGHT	WAVE DIR'N	WIND SPEED	WIND DIR'N	RAIN to 0900	H.W. LEVEL
	m	m	deg	kn	deg	mm	m
28/2/89	N/A	0.0	220	13	132	11.0	1.9
1/3/89	N/A	0.0	205	20	138	7.4	1.8
2/3/89	N/A	0.0	215	22	125	4.0	1.9
3/3/89	N/A	0.0	190	18	96	40.2	2.1
4/3/89	N/A	0.0	190	20	106	20.6	2.3
5/3/89	N/A	0.0	205	15	90	23.8	2.5
19/3/89	N/A	0.1	300	12	81	45.4	2.8
30/3/89	N/A	N/A	N/A	18	85	29.2	1.8
2/4/89	N/A	0.3	290	14	70	18.0	2.4
4/4/89	80	0.4	300	20	84	0.0	3.0
5/4/89	50	0.4	310	24	60	1.0	3.0
6/4/89	5	0.4	330	15	77	0.6	3.0
7/4/89	20	0.4	300	14	84	4.0	2.9
8/4/89	20	0.2	300	12	95	1.4	2.7
9/4/89	20	0.1	300	15	93	0.4	2.4
10/4/89	20	0.1	270	9	100	18.4	2.1
13/4/89	10	0.1	280	2	35	0.0	1.9
17/4/89	20	0.2	250	2	97	0.0	2.6
20/4/89	10	0.3	220	15	127	2.0	2.6
21/4/89	10	0.2	280	11	100	11.4	2.5
22/4/89	N/A	0.3	265	12	108	15.2	2.4
23/4/89	5	0.2	290	11	71	25.6	2.3
24/4/89	20	0.2	290	17	39	25.6	2.2
25/4/89	20	0.4	275	18	285	22.8	2.1
27/4/89	10	0.3	255	15	255	0.0	1.9 *1
3/5/89	10	0.4	290	9	80	0.0	2.8
4/5/89	3	0.3	280	5	65	17.8	2.8
7/5/89	5	0.2	270	10	85	17.4	2.4
8/5/89	6	0.3	290	13	100	43.4	2.2
15/5/89	20	0.3	260	13	80	1.2	2.4
16/5/89	20	0.4	300	16	75	1.0	2.5
17/5/89	20	0.4	312	17	75	23.2	2.4
18/5/89	50	0.4	265	19	110	14.2	2.4 *2
19/5/89	20	0.3	310	13	90	0.4	2.4
20/5/89	15	0.3	230	18	130	0.4	2.3
21/5/89	10	0.4	235	24	130	6.0	2.3
22/5/89	20	0.2	270	18	105	7.8	2.2

*1 Salt water pipe trench excavated 26/4/89.

*2 Probable human disturbance to beach, but not recorded.

DATE	STATION 2			H.I.A.W.S.			DHM
	SILT PLUME WIDTH	AV. BREAKER HEIGHT	WAVE DIR'N	WIND SPEED	WIND DIR'N	RAIN to 0900 mm	H.W. LEVEL
	m	m	deg	kn	deg	mm	m
26/5/89	3	0.1	275	17	70	27.2	2.0
27/5/89	10	0.2	275	17	95	24.6	2.1
28/5/89	25	0.3	N/A	30	130	33.2	2.2 *3
29/5/89	70	0.5	220	22	140	4.6	2.4 *3
30/5/89	10	0.5	307	11	135	8.8	2.6
31/5/89	4	0.5	280	11	255	0.0	2.8
1/6/89	3	0.4	230	6	160	0.0	2.9
7/6/89	15	0.3	220	16	155	0.0	2.1
13/6/89	10	0.3	225	18	134	0.0	2.3
15/6/89	15	0.3	250	18	133	0.0	2.6
27/6/89	3	0.4	235	18	135	0.0	2.4
28/6/89	5	0.5	235	18	125	0.6	2.6
29/6/89	15	0.6	307	18	120	17.6	2.7
30/6/89	8	0.5	305	14	128	13.6	2.9
11/7/89	0	0.2	235	13	175	14.8	2.1
19/7/89	6	0.4	235	18	185	0.0	2.3
20/7/89	4	0.4	235	16	195	0.0	2.4
23/7/89	10	0.2	295	4	50	0.2	2.5
26/7/89	15	0.2	220	16	132	0.0	2.4
27/7/89	30	0.5	245	22	130	0.0	2.5
28/7/89	20	0.3	310	14	110	1.4	2.6
1/8/89	3	0.3	233	21	164	0.0	2.3
13/8/89	0	0.4	265	12	130	0.0	2.6
18/8/89	5	0.5	162	19	160	10.4	2.6
19/8/89	300	0.7	235	22	105	15.8	2.7 *4
20/8/89	300	0.6	220	21	134	3.0	2.7 *4
23/8/89	10	0.2	230	3	317	0.0	2.4
24/8/89	10	0.1	320	6	133	0.0	2.4
27/8/89	0	0.4	311	10	330	0.0	2.7
2/9/89	20	0.3	235	23	141	0.0	2.5
9/9/89	13	N/A	220	12	110	0.0	2.2
18/9/89	2	0.5	310	15	308	0.0	2.9 *5
19/9/89	4	0.5	302	11	295	0.0	2.8

*3 Beach area and scarp reshaped by earthmoving equipment causing very thick silt plume, especially under jetty.

*4 Silt plume to edge of reef.

*5 Scarp erosion, tractor activity

DATE	STATION 2			H.I.A.W.S.			DHM
	SILT PLUME WIDTH	AV. BREAKER HEIGHT	WAVE DIR'N	WIND SPEED	WIND DIR'N	RAIN to 0900 mm	H.W. LEVEL
	m	m	deg	kn	deg		m
27/9/89	10	0.3	224	25	145	0.0	2.4
29/9/89	5	0.4	298	18	116	0.0	2.6
30/9/89	20	0.3	210	12	115	0.0	2.6
10/10/89	10	0.4	310	17	310	0.0	2.6
28/10/89	N/A	0.2	210	26	153	1.2	2.6
7/11/89	5	0.2	195	11	110	12.8	2.4
20/11/89	0	0.1	195	21	113	14.8	2.4
21/11/89	0	0.2	140	26	122	0.0	2.3
28/11/89	14	0.1	200	12	96	1.4	2.8
29/11/89	10	0.2	310	15	104	0.0	2.8
15/12/89	12	0.2	220	19	124	40.2	3.0
17/12/89	11	0.2	210	23	103	0.4	2.7
18/12/89	10	0.3	220	22	118	5.4	2.5
23/1/90	6	0.3	220	22	110	0.0	2.6
24/1/90	5	0.3	210	23	125	5.0	2.7
30/1/90	15	0.3	220	22	114	0.0	3.0
31/1/90	10	0.3	230	17	144	0.0	2.8
25/2/90	20	0.3	185	14	107	0.0	3.1
26/2/90	10	0.3	205	25	128	6.6	3.1
27/2/90	14	0.4	N/A	20	118	21.0	3.1
4/3/90	0	0.0	N/A	17	88	15.8	1.9
5/3/90	0	0.1	170	22	100	21.0	2.0
6/3/90	0	0.1	N/A	20	133	0.4	2.2
8/3/90	10	0.4	230	23	171	0.0	2.9
13/3/90	4	0.2	225	20	123	0.2	2.7
14/3/90	9	0.6	225	25	124	0.2	2.6
15/3/90	0	0.2	225	20	134	0.0	2.4
16/3/90	2	0.2	200	23	131	0.2	2.2
17/3/90	6	0.1	200	25	127	1.6	2.0
18/3/90	8	0.2	200	21	131	0.0	1.8
19/3/90	2	0.1	200	22	126	0.0	1.7
20/3/90	2	0.1	200	20	123	0.0	1.8
22/3/90	9	0.2	205	20	112	0.2	2.2
23/3/90	4	0.3	200	27	122	2.4	2.4
25/3/90	6	0.3	182	20	81	6.8	3.0
26/3/90	3	0.5	175	23	74	53.0	3.0
27/3/90	2	0.3	325	23	44	32.2	3.0
28/3/90	4	0.2	325	15	36	68.6	2.9
29/3/90	0	0.1	285	13	74	26.6	2.7

DATE	STATION 2			H.I.A.W.S.			DHM
	SILT PLUME WIDTH	AV. BREAKER HEIGHT	WAVE DIR'N	WIND SPEED	WIND DIR'N	RAIN to 0900 mm	H.W. LEVEL
	m	m	deg	kn	deg		m
2/4/90	0	0.1	215	13	95	26.8	1.9
3/4/90	0	0.1	235	2	45	146.0	2.0
4/4/90	0	0.1	247	12	80	34.4	2.3
5/4/90	0	0.1	225	2	60	44.4	2.4
16/4/90	0	0.0	275	3	5	78.4	1.8
17/4/90	0	0.1	245	8	103	123.2	1.8
18/4/90	0	0.0	202	12	73	113.2	1.9
19/4/90	0	0.1	245	14	48	13.4	2.0
11/5/90	15	0.1	241	12	101	0.4	2.3
23/5/90	0	0.2	290	12	300	64.4	2.6
28/5/90	8	0.2	280	11	158	10.8	2.2
8/6/90	6	0.2	242	26	142	24.8	2.2
9/6/90	4	0.2	195	24	145	0.2	2.2
10/6/90	4	0.3	230	26	144	0.2	2.2
11/6/90	0	0.2	220	23	137	0.0	2.1
15/6/90	10	0.1	200	18	133	0.0	2.1
16/6/90	15	0.1	235	18	174	13.8	2.2
17/6/90	2	0.2	295	2	270	20.0	2.4
18/6/90	10	0.1	210	6	178	0.2	2.6
19/6/90	15	0.2	215	19	161	0.0	2.8
20/6/90	5	0.6	205	33	134	0.0	3.0
21/6/90	6	0.4	230	23	141	3.0	2.3
24/6/90	15	0.1	310	2	70	8.6	2.3
7/7/90	0	0.3	215	20	141	0.0	2.2
27/7/90	10	0.0	270	3	270	0.2	2.2
30/7/90	0	0.2	230	13	195	11.2	2.1
31/7/90	10	0.0	240	7	238	0.4	2.2
2/8/90	0	0.1	225	15	170	12.0	1.9
7/8/90	0	0.3	230	20	178	0.0	2.4
9/8/90	10	0.1	260	2	273	0.0	2.5
15/8/90	300	0.3	300	26	312	0.0	2.5
17/8/90	0	0.2	225	21	178	0.0	2.1
18/8/90	0	0.2	230	28	163	0.0	2.2
28/8/90	12	0.2	240	15	133	0.0	2.0

DATE	STATION 2			H.I.A.W.S.			DHM
	SILT PLUME WIDTH	AV. BREAKER HEIGHT	WAVE DIR'N deg	WIND SPEED kn	WIND DIR'N deg	RAIN to 0900 mm	H.W. LEVEL m
	m	m	deg	kn	deg	mm	m
2/9/90	10	0.1	215	N/A	N/A	N/A	2.2
4/9/90	0	0.3	230	22	178	0.0	2.4
10/9/90	10	0.1	210	18	124	0.0	2.5
17/9/90	0	0.2	220	20	143	3.0	2.5
18/9/90	0	0.2	220	17	105	11.8	2.6
20/9/90	10	0.2	290	12	106	0.0	2.6
30/9/90	15	0.2	315	8	88	0.0	2.5
7/10/90	15	0.2	220	11	150	0.0	2.9
12/10/90	0	0.3	290	21	320	0.0	2.5
6/11/90	6	0.5	230	23	136	0.0	3.0
7/11/90	7	0.5	250	18	147	0.0	2.8
8/11/90	N/A	N/A	N/A	20	131	1.4	2.6
18/11/90	0	0.8	315	12	321	0.0	2.7
19/11/90	6	0.3	200	25	115	0.0	2.7
2/12/90	12	0.1	300	5	13	0.0	3.2
3/12/90	3	0.4	310	12	347	0.0	3.2
4/12/90	0	0.5	310	9	312	0.0	3.2
18/12/90	6	0.8	290	16	104	0.0	2.8
19/12/90	4	0.7	300	11	96	0.0	2.8
20/12/90	4	0.7	310	11	94	0.0	2.7
21/12/90	4	0.5	320	3	72	0.0	2.7
2/1/91	5	0.4	328	15	71	13.6	3.2
3/1/91	7	0.6	325	20	76	13.6	3.1
4/1/91	10	0.3	310	20	50	73.6	3.0
5/1/91	5	0.1	310	22	16	4.0	2.8
8/1/91	6	0.2	230	20	112	3.6	2.2
10/1/91	0	0.1	190	23	108	1.6	2.1
28/1/91	N/A	N/A	N/A	9	326	13.4	3.0
2/2/91	6	0.2	330	11	78	12.2	3.0
3/2/91	80	0.2	205	17	88	21.2	2.7
6/2/91	0	0.1	320	18	21	10.4	2.0
10/2/91	0	0.1	170	7	91	31.4	2.2

DATE	STATION 2			H.I.A.W.S.			DHM
	SILT PLUME WIDTH	AV. BREAKER HEIGHT	WAVE DIR'N	WIND SPEED	WIND DIR'N	RAIN to 0900	H.W. LEVEL
	m	m	deg	kn	deg	mm	m
12/2/91	1	0.2	220	20	140	0.6	2.8
14/2/91	15	0.2	225	11	96	9.2	2.9
16/2/91	20	0.2	300	6	107	0.0	2.9
25/2/91	3	0.1	205	21	102	3.6	2.4
26/2/91	8	0.3	170	22	104	0.0	3.0
27/2/91	10	0.2	190	16	104	6.4	3.1
1/3/91	20	0.2	315	11	91	0.0	3.1
6/3/91	2	0.2	190	21	106	0.0	2.1
7/3/91	2	0.1	230	29	115	0.0	1.9
18/3/91	10	0.2	190	18	118	0.0	2.8
23/3/91	4	0.4	250	2	183	0.0	1.9
4/4/91	2	0.1	200	20	112	0.0	2.1
9/4/91	0	0.4	220	22	118	0.0	2.1
10/4/91	1	0.2	210	18	106	20.6	2.3
25/4/91	0	0.3	305	20	325	0.0	2.7
27/4/91	0	0.3	230	20	147	0.0	2.7