

**DEVON AREA
INTERNAL REPORT**



**ENVIRONMENT
AGENCY**

**IMPACT OF
BREAKWATERS ON THE
WATER QUALITY OF
SIDMOUTH BEACH.**

**OCTOBER 1996
DEV/WQ/8/96**

**Author: A. LOXTON
INVESTIGATIONS TECHNICIAN**

**G R Bateman
Area Manager (Devon)**

H10



ENVIRONMENT AGENCY

Information Services Unit

Please return or renew this item by the due date

Due Date



THE IMPACT OF BREAKWATERS ON THE WATER QUALITY OF SIDMOUTH BEACH

1. INTRODUCTION

Sidmouth is situated in East Devon at the mouth of the River Sid. The beach there suffers from constant erosion and two breakwaters have now been constructed, off the West end of the beach, to reduce this erosion.

2. TERMS OF REFERENCE

2.1 OBJECTIVES

A request was received from Regional Tidal Waters, to sample along the length of Sidmouth beach during the Bathing Beach season, to determine if the two new breakwaters have had any effect on the water quality.

2.3 PROJECT TEAM

T Cronin (Project Leader)
A Loxton (Project Manager)

3. METHOD

1. Samples were taken during the bathing season, prior to the construction of the breakwaters (1994) and after their completion (1996).
2. The beach was divided into eleven sampling sites (figure 1). Two of the sites are ECB sampling points.
3. During 1996, the River Sid was also sampled but was only sampled on three occasions in 1994.
3. Where possible, sampling occurred weekly at different states of tide to cover the full tidal cycle (HW - 6 to HW + 6) at least once.
4. All samples in 1994 were analysed for salinity, E. coli. and Faecal streptococci.
5. All samples in 1996 were analysed for salinity, Faecal coliform (confirmed) and Faecal streptococci.



4. RESULTS

4.1 HISTORIC RESULTS

The routine data for the bathing water samples at Sidmouth (Town) and Sidmouth (Jacob's ladder) beaches are shown in Appendix I. The River Sid has been sampled just above the beach from 1995 onwards, and the 1996 results are shown in Appendix I.

4.1 INVESTIGATION RESULTS

The results for the 1994 survey are tabulated in Appendix II.

The results for the 1996 survey are tabulated in Appendix III.

5. DISCUSSION

All results have been sent to Regional Tidal Waters for analysis.

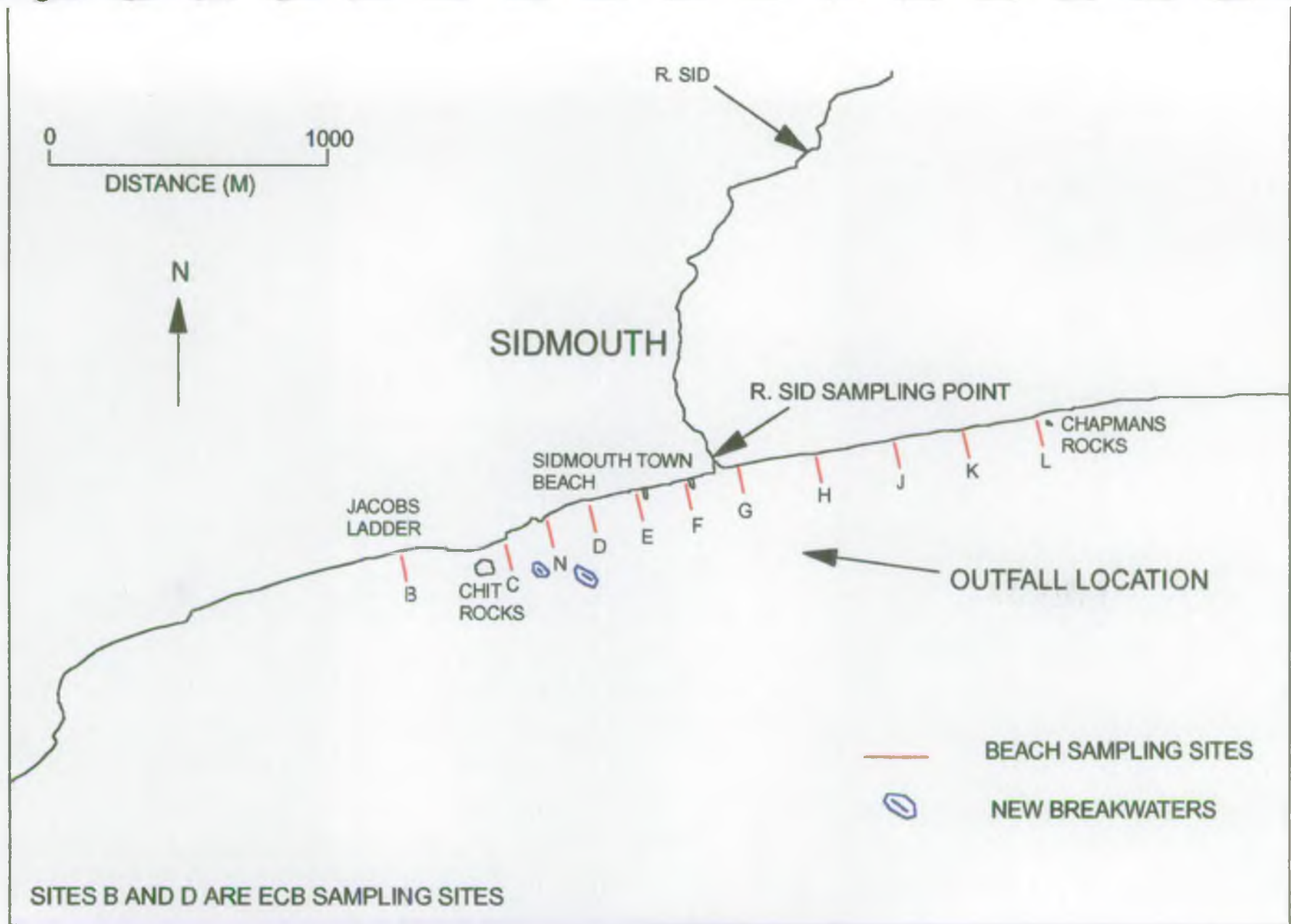


FIGURE 1: SIDMOUTH BEACH SAMPLING SITES

APPENDIX I

ENVIRONMENT AGENCY - SOUTH WEST REGION

BATHING WATER : SIDMOUTH (TOWN) BEACH

NGR OF SAMPLING LOCATION : SY 1270 8720

URN OF SAMPLING LOCATION : ECB0040

Date Printed: 19/11/96

SAMPLE DATE DD/MM/YY	SAMPLE TIME HR:MM	TIME OF HIGH TIDE HR:MM	TOTAL COLIFORMS NO/100ml		FAECAL COLIFORMS NO/100ml		FAECAL STREPTOCOCCI NO/100ml	pH UNITS	ENTERO VIRUSES PFU/10 LITRES	TRANSPARENCY METRES	SALMONELLA CODE	COLOUR CODE	MINERAL OILS CODE	SURFACE-ACTIVE SUBSTANCES CODE	PHENOLS CODE
			PRESUMPTIVE MF	CONFIRMED MF	PRESUMPTIVE MF	CONFIRMED MF									
01/05/94	14:05	11.35	130	130	80	80	30	8.2		0		0	0	0	0
11/05/94	10:50	7.55	50	30	30	20	20	8.1		0		0	0	0	0
18/05/94	11:10	12.22	100	70	60	50	10	8.2		0		0	0	0	0
24/05/94	12:20	6.31	3000	2400	2100	2100	5800	8.0		< 1		0	0	0	0
27/05/94	11:45	9.09	10000	7000	4100	3280	4400	8.1		< 1		0	0	0	0
06/06/94	12:20	17.41	710	710	420	420	90	8.1		< 1	0	0	0	0	0
15/06/94	11:15	11.21	10	10	10	10	< 10	8.1		> 1		0	0	0	0
22/06/94	12:30	6.12	10	10	10	10	< 10	8.0		> 1		0	0	0	0
01/07/94	11:35	12.38	50	50	30	30	10	8.1		< 1		0	0	0	0
08/07/94	11:40	7.09	1100	1100	420	420	100	7.9		0		0	0	0	0
18/07/94	13:30	14.36	140	126	60	60	20	8.1		0		1	0	0	0
26/07/94	12:40	9.56	900	800	1200	1200	460	8.0		0	1	0	0	0	0
02/08/94	12:20	15.03	8000	6000	3400	3060	1900	8.0		0		0	0	0	0
11/08/94	12:35	10.14	510	408	390	273	50	8.0		< 1		0	0	0	0
18/08/94	12:05	17.13	190	133	150	150	30	8.0		< 1		0	0	0	0
24/08/94	12:10	9.22	80	80	100	80	40	8.0		< 1		0	0	0	0
30/08/94	12:30	12.45	140	70	50	50	70	8.1		> 1		0	0	0	0
08/09/94	11:30	9.15	2200	2200	1500	1500	540	8.1		< 1		0	0	0	0
15/09/94	12:30	15.46	560	504	320	288	90	8.0		0		0	0	0	0
22/09/94	11:55	8.49	500	500	390	312	80	8.0		0		0	0	0	0

MF = MEMBRANE FILTRATION

KEY : 0 - ABSENT 1 - PRESENT

ENVIRONMENT AGENCY - SOUTH WEST REGION
 BATHING WATER : SIDMOUTH (TOWN) BEACH
 NGR OF SAMPLING LOCATION : SY 1270 8720
 Date Printed: 15/11/96

URN OF SAMPLING LOCATION : ECB0040

SAMPLE DATE	SAMPLE TIME	TIME OF HIGH TIDE	TOTAL COLIFORMS NO/100ml		FAECAL COLIFORMS NO/100ml		FAECAL STREPTOCOCCI NO/100ml	pH UNITS	ENTERO VIRUSES PFU/10 LITRES	TRANSPARENCY METRES	SALMONELLA CODE	COLOUR CODE	MINERAL OILS CODE	SURFACE-ACTIVE SUBSTANCES CODE	PHENOLS CODE
			PRESUMPTIVE MF	CONFIRMED MF	PRESUMPTIVE MF	CONFIRMED MF									
02/05/96	11:55	6.42	630	630	18	9	117			< 1		0	0	0	0
13/05/96	12:00	16.27	45	36	9	9	< 10			> 1		0	0	0	0
19/05/96	11:40	8.42	2100	1050	540	486	220			0		0	0	0	0
30/05/96	15:50	17.45	370	370	230	207	9			0		0	0	0	0
07/06/96	13:10	11.45	220	176	99	50	9			< 1		0	0	0	0
12/06/96	13:00	16.55	210	189	144	115	18			< 1		0	0	1	0
17/06/96	11:45	8.18	72	63	63	54	27	8.1		< 1	0	0	0	0	0
27/06/96	10:35	15.54	18	9	9	< 10	9			> 1		0	0	0	0
05/07/96	12:05	10.45	45	27	18	18	< 10			< 1		0	0	0	0
13/07/96	12:35	5.51	90	54	108	86	< 10			< 1		0	0	0	0
19/07/96	11:55	9.45	36	36	45	36	36			> 1		0	0	0	0
25/07/96	15:35	13.50	< 10	< 10	< 10	< 10	< 10			> 1		0	0	0	0
02/08/96	12:30	9.45	240	168	81	72	18	8.1		0	0	0	0	0	0
12/08/96	12:25	6.16	240	240	144	144	250			< 1		0	0	0	0
15/08/96	12:00	20.27	54	54	9	9	9			< 1		0	0	0	0
22/08/96	12:05	12.16	380	380	210	210	36			0		0	0	0	0
01/09/96	13:45	8.35	72	72	45	45	72			< 1		0	0	0	0
11/09/96	12:30	18.44	72	54	54	54	162			< 1		0	0	0	0
19/09/96	12:05	11.06	81	63	54	45	27			< 1		0	0	0	0
30/09/96	12:40	9.35	370	296	162	146	45			< 1		0	0	0	0

MF = MEMBRANE FILTRATION

KEY : 0 - ABSENT 1 - PRESENT

ENVIRONMENT AGENCY - SOUTH WEST REGION

BATHING WATER : SIDMOUTH (JACOBS LADDER) BEACH

NGR OF SAMPLING LOCATION : SY 1190 8695 URN OF SAMPLING LOCATION : ECB0041

Date Printed: 19/11/96

SAMPLE DATE DD/MM/YY	SAMPLE TIME HR:MM	TIME OF HIGH TIDE HR:MM	TOTAL COLIFORMS NO/100ml		FAECAL COLIFORMS NO/100ml		FAECAL STREPTOCOCCI NO/100ml	pH UNITS	ENTERO VIRUSES PFU/10 LITRES	TRANSPARENCY METRES	SALMONELLA CODE	COLOUR CODE	MINERAL OILS CODE	SURFACE-ACTIVE SUBSTANCES CODE	PHENOLS CODE
			PRESUMPTIVE MF	CONFIRMED MF	PRESUMPTIVE MF	CONFIRMED MF									
01/05/94	12:10	11.35	250	200	50	50	< 10	8.3		0		0	0	0	0
11/05/94	10:40	7.55	370	333	90	80	10	8.2		0		0	0	0	0
18/05/94	11:20	12.22	110	88	30	20	10	8.2		0		0	0	0	0
24/05/94	12:35	6.31	1300	1300	530	530	450	8.1		< 1		0	0	0	0
27/05/94	11:55	9.09	240	192	120	72	30	8.2		< 1		0	0	0	0
06/06/94	12:40	17.41	< 10	< 10	< 10	< 10	< 10	8.1		< 1	0	0	0	0	0
15/06/94	11:20	11.21	51	51	52	52	< 1	8.1		> 1		0	0	0	0
22/06/94	12:20	6.12	40	40	14	10	5	8.1		> 1		0	0	0	0
01/07/94	11:50	12.38	90	70	60	60	16	8.0		< 1		0	0	0	0
08/07/94	11:55	7.09	320	320	310	310	130	7.9		0		0	0	1	0
18/07/94	13:45	14.36	44	40	24	22	10	8.0		0		1	0	0	0
26/07/94	12:50	9.56	900	900	560	504	350	8.0		0	1	0	0	0	0
02/08/94	12:30	15.03	9100	6370	5100	5100	1200	8.0		0		0	0	0	0
11/08/94	12:45	10.14	520	260	320	256	90	8.0		< 1		0	0	0	0
18/08/94	12:20	17.13	20	20	21	19	8	8.1		< 1		0	0	0	0
24/08/94	12:25	9.22	290	290	270	243	70	8.0		< 1		0	0	0	0
30/08/94	12:40	12.45	41	41	19	19	11	8.1		< 1		0	0	0	0
08/09/94	11:40	9.15	1000	800	1000	900	490	8.1		< 1		1	0	0	0
15/09/94	12:40	15.46	500	400	260	234	90	8.0		< 1		0	0	0	0
22/09/94	11:45	8.49	690	690	720	720	53	8.0		< 1		0	0	0	0

MF = MEMBRANE FILTRATION

KEY : 0 - ABSENT 1 - PRESENT

ENVIRONMENT AGENCY - SOUTH WEST REGION
BATHING WATER : SIDMOUTH (JACOBS LADDER) BEACH
NGR OF SAMPLING LOCATION : SY 1190 8695 URN OF SAMPLING LOCATION : ECB0041
 Date Printed: 15/11/96

SAMPLE DATE DD/MM/YY	SAMPLE TIME HR:MM	TIME OF HIGH TIDE HR:MM	TOTAL COLIFORMS NO/100ml		FAECAL COLIFORMS NO/100ml		FAECAL STREPTOCOCCI NO/100ml	pH	ENTERO VIRUSES PFU/10 LITRES	TRANSPARENCY METRES	SALMONELLA CODE	COLOUR CODE	MINERAL OILS CODE	SURFACE-ACTIVE SUBSTANCES CODE	PHENOLS CODE
			PRESUMPTIVE MF	CONFIRMED MF	PRESUMPTIVE MF	CONFIRMED MF		UNITS							
02/05/96	12:05	6.42	189	151	90	72	27			0		0	0	0	0
13/05/96	12:05	16.27	9	9	< 10	< 10	9			> 1		0	0	0	0
19/05/96	11:45	8.42	1636	1636	430	387	90			0		0	0	0	0
30/05/96	16:05	17.45	520	520	153	138	< 10			0		0	0	0	0
07/06/96	13:15	11.45	45	45	9	9	18			< 1		0	0	0	0
12/06/96	13:10	16.55	< 10	< 10	< 10	< 10	< 10			< 1		0	0	1	0
17/06/96	11:55	8.18	< 10	< 10	< 10	< 10	< 10	8.2		> 1	0	0	0	0	0
27/06/96	10:25	15.54	36	36	< 10	< 10	< 10			> 1		0	0	0	0
05/07/96	12:15	10.45	72	63	27	27	< 10			0		0	0	0	0
13/07/96	12:45	5.51	18	18	9	9	18			< 1		0	0	0	0
19/07/96	12:05	9.45	36	18	9	9	18			> 1		0	0	0	0
25/07/96	15:50	13.50	27	27	< 10	< 10	< 10			> 1		0	0	0	0
02/08/96	12:40	9.45	72	72	54	54	9	8.1		0	1	0	0	0	0
12/08/96	12:35	6.16	72	72	63	63	18			< 1		0	0	0	0
15/08/96	12:05	20.27	9	9	< 10	< 10	< 10			< 1		0	0	0	0
22/08/96	12:10	12.16	63	63	45	45	27			0		0	0	0	0
01/09/96	13:50	8.35	36	18	< 10	< 10	18			< 1		0	0	0	0
11/09/96	12:20	18.44	9	9	9	9	< 10			< 1		0	0	0	0
19/09/96	12:15	11.06	135	135	144	101	54			< 1		0	0	0	0
30/09/96	12:55	9.35	250	225	171	137	90			< 1		0	0	0	0

MF = MEMBRANE FILTRATION

KEY : 0 - ABSENT 1 - PRESENT

ENVIRONMENT AGENCY - SOUTH WEST REGION
 BATHING WATER : RIVER SID AT SIDMOUTH
 NGR OF SAMPLING LOCATION : SY 1295 8730
 Date Printed: 26/11/96

URN OF SAMPLING LOCATION : ECBR0040

SAMPLE DATE	SAMPLE TIME	TIME OF HIGH TIDE	TOTAL COLIFORMS NO/100ml		FAECAL COLIFORMS NO/100ml		FAECAL STREPTOCOCCI	pH	ENTERO VIRUSES	TRANSPARENCY	SALMONELLA	COLOUR	MINERAL OILS	SURFACE-ACTIVE SUBSTANCES	PHENOLS
			PRESUMPTIVE MF	CONFIRMED MF	PRESUMPTIVE MF	CONFIRMED MF	NO/100ml	UNITS	PFU/10 LITRES	METRES	CODE	CODE	CODE	CODE	CODE
02/05/96	11:50		4200		964		340		0	0	0			0	0
13/05/96	11:50		865		153		45		0	0	0			0	0
19/05/96	11:30		41000		19000		4300		0	0	0			0	0
30/05/96	15:45		10000		490		108		0	0	0			0	0
07/06/96	13:05		3000		1273		210		0	0	0			0	0
12/06/96	12:50		3000		1182		320		0	0	0			0	0
17/06/96	11:40		3000		3100		320		0	0	0			0	0
27/06/96	10:40		2300		1818		290		0	0	0			0	0
05/07/96	12:00		3000		2200		1183		0	0	0			0	0
13/07/96	12:25		3400		2900		410		0	0	0			0	0
19/07/96	11:50		3500		2300		690		0	0	0			0	0
25/07/96	15:30		4500		1636		135		0	0	0			0	0
02/08/96	12:25		2500		1636		955		0	0	0			0	0
12/08/96	12:15		5300		2600		937		0	0	0			0	0
15/08/96	11:50		4200		2100		1636		0	0	0			0	0
22/08/96	11:55		2200		1182		340		0	0	0			0	0
01/09/96	13:40		3800		2100		580		0	0	0			0	0
11/09/96	12:40		1273		710		470		0	0	0			0	0
19/09/96	12:00		2700		1027		430		0	0	0			0	0
30/09/96	12:45		4200		1636		1636		0	0	0			0	0

MF = MEMBRANE FILTRATION

KEY : 0 - ABSENT 1 - PRESENT

APPENDIX II

Sidmouth Beach Survey - 1994

Date	From: 0920	Tide Run	Time of HW	Sampler
05.05.94	To: 1030	HW-6	1559	L. Bulbeck

Weather	Cloud cover	Previous rain	Current rain
overcast/foggy	8/8	occ. shower	occ. shower

Wind Speed	Direction	Wave height	Direction	Slick trajectory
9 knt	southerly	0.75	northerly	-

General observations (plume, debris etc):

Discoloured water 200m out from beach from R.Sid to Jacob's Ladder.
Algae bloom present especially around sample pt B.

Bathers (location and numbers):

None.

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F.Strep No./100ml
L	0920	32.6	50	20
K	0925	34.0	80	20
J	0930	33.5	100	20
H	0935	32.8	50	20
G	0940	20.7	120	360
F	0955	34.3	20	<10
D	1000	33.9	390	230
E	1010	34.5	<10	<10
N	1015	34.4	50	10
C	1020	34.2	10	10
B	1030	34.7	10	<10

Sidmouth Beach Survey - 1994

Date 09-05-94	From: 1350	Tide Run HW-5	Time of HW 1951	Sampler L. Bulbeck
	To: 1515			

Cloud cover 2/8	Weather sunny / calm	Previous rain early am	Current rain nil
--------------------	-------------------------	---------------------------	---------------------

Wind Speed 2 knts	Direction southerly	Wave height 0.1m	Direction north	Slick trajectory -
----------------------	------------------------	---------------------	--------------------	-----------------------

General observations (plume, debris etc):

Discoloured water extending 300M

Bathers (location and numbers):

Point B - 6 (2 swimming)
Approx 20 sitting along beach in front of esplanade
one windsurfer

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F.Strep No./100ml
L	1350	34.4	280	820
K	1355	34.2	30	10
J	1400	34.6	<10	<10
H	1420	32	80	<10
G	1425	30.6	50	<10
F	1435	31.4	180	40
D	1445	33.4	150	50
E	1450	32.5	500	40
N	1500	33.9	<10	40
C	1505	33.8	10	20
B	1515	34.5	<10	<10

Sidmouth Beach Survey - 1994

Date	From: 1250	Tide Run	Time of HW	Sampler
18-05-94	To: 1355	HW +1	1225	L Bulbeck

Cloud cover	Weather	Previous rain	Current rain
6/8	Sunny	All day 17th	Nil

Wind Speed	Direction	Wave height	Direction	Slick trajectory
0 gusting 2	Easterly	Slight swell~ 15cm	East	-

General observations (plume, debris etc):

Slick extending 300M out from R. Sid
Bloom around pt. B. Slick extending 500M out from Jacobs ladder

Bathers (location and numbers):

One bather at pt. E.

Sample Point	Time Taken	Salinity g/kg	E.Coll No./100ml	F.Strep No./100ml
L	1250	34.6	10	40
K	1255	34.6	<10	<10
J	1300	34.6	<10	10
H	1305	34.5	10	10
G	1310	34.6	60	20
F	1320	33.9	120	<10
D	1330	34.5	60	20
E	1335	34.0	450	910
N	1340	34.6	<10	<10
C	1345	32.5	580	250
B	1355	34.6	20	10

Sidmouth Beach Survey

Date	From: 1115	Tide Run	Time of HW	Sampler
23-05-94	To: 1220	HW-6	1803	L Bulbeck

Cloud cover	Weather	Previous rain	Current rain
7/8	Calm Foggy	Heavy rain prev. 48Hr	Occassional rain

Wind Speed	Direction	Wave height	Direction	Slick trajectory
0 gusting 3	SW	10 cm Glassy	NE	-

General observations (plume, debris etc):

Discolouration entire length of beach, due to soil erosion & algal bloom.
Foam collecting at pt. B.

Bathers (location and numbers):

People sitting on beach only - mainly at points D & E (~7)

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F.Strep No./100ml
L	1115	34.9	120	<10
K	1125	34.8	30	<10
J	1130	34.7	90	10
H	1140	34.4	90	40
G	1145	22.1	1800	270
F	1150	32.8	400	140
D	1155	31.6	130	50
E	1200	30.6	800	310
N	1210	28.8	440	100
C	1212	27.9	350	80
B	1220	34.6	20	10

Sidmouth Beach Survey - 1994

Date	From: 14:10	Tide Run	Time of HW	Sampler
31:05:94	To: 15:35	HW +2	12:06	L. BURBECK

Cloud cover	Weather	Previous rain	Current rain
0/8	WARM, SUNNY	NIL	NIL

Wind Speed	Direction	Wave height	Direction	Slick trajectory
0-1	-	0.1	-	-

General observations (plume, debris etc):

Traces of sewage along entire length of beach (with exception of Jacobs Ladder) inc san.towels paper, plastic at water edge + HW mark. Esp. bad at pt. E, apparently bad prev. day at HW and according to 2 locals, worse ever seen. Many complaints to me whilst sampling.

Bathers (location and numbers):

In 100's. Throughout entire length of beach, more conc. along esplanade (between D & N) and at Jacobs Ladder (pt. B). Many paddling, approx 10 swimming, 2 water skiers, 1 jet ski.

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F.Strep No./100ml
L	1410	32.9	20	260
K	1415	33.8	1300	<10
J	1422	32.1	1100	1100
H	1430	33.4	<10	40
G	1435	33.5	20	20
F	1440	34.7	10	600
D	1455	34.6	40	480
E	1500	31.5	60	200
N	1510	31.4	40	200
C	1515	31.5	110	80
B	1535	34.5	<10	40

Sidmouth Beach Survey - 1994

Date 9:6:94	From: 11:35 To: 12:55	Tide Run HW + 4	Time of HW 07:22	Sampler L. BULBECK
----------------	--------------------------	--------------------	---------------------	-----------------------

Cloud cover 5/8	Weather SUNNY INTS	Previous rain NIL	Current rain NIL
--------------------	-----------------------	----------------------	---------------------

Wind Speed 7-8	Direction NW	Wave height 0.5	Direction SW	Slick trajectory -
-------------------	-----------------	--------------------	-----------------	-----------------------

General observations (plume, debris etc):

Beach clean, no discoloration of water.

Bathers (location and numbers):

No bathers but approx. 10 paddlers.

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F.Strep No./100ml
L	1135	34.7	<10	10
K	1140	34.2	10	<10
J	1150	34.8	<10	<10
H	1200	34.5	<10	<10
G	1205	34.5	10	<10
F	1210	34.9	30	20
D	1225	35.0	10	<10
E	1230	34.6	<10	<10
N	1240	34.0	10	<10
C	1245	3.77	670	60
B	1255	34.9	<10	<10

Sidmouth Beach Survey - 1994

Date	From: 10:10	Tide Run	Time of HW	Sampler
13:6:94	To: 11:20	HW	10:03	L. BULBECK

Cloud cover	Weather	Previous rain	Current rain
0/8	CALM/SUNNY	NIL	NIL

Wind Speed	Direction	Wave height	Direction	Slick trajectory
0-2	S	SLIGHT RIPPLE	-	slight vis at outfall

General observations (plume, debris etc):

Clear calm water with no debris. Seagulls at outfall slight foam at pt.8.

Bathers (location and numbers):

Approx 6 bathers: Several people paddling

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F.Strep No./100ml
L	1010	35.0	<10	<10
K	1015	35.0	<10	<10
J	1020	35.0	20	<10
H	1030	35.0	10	10
G	1035	33.8	10	10
F	1040	35.0	<10	<10
D	1045	35.0	<10	<10
E	1055	35.0	100	80
N	1100	35.0	<10	<10
C	1105	35.0	10	320
B	1120	35.0	<10	<10

Sidmouth Beach Survey - 1994

Date 24:6:94	From:10:00 To:11:05	Tide Run HW + 2	Time of HW 08:00	Sampler L. BULBECK
-----------------	------------------------	--------------------	---------------------	-----------------------

Cloud cover 7/8	Weather humid/thunder	Previous rain NIL	Current rain NIL
--------------------	--------------------------	----------------------	---------------------

Wind Speed 3 gust 5	Direction E	Wave height 1.5	Direction W	Slick trajectory -
------------------------	----------------	--------------------	----------------	-----------------------

General observations (plume, debris etc):

Along entire length of beach patches of foam at waters edge. Difficult to take samples due to rough conditions & height of tides...samples not collected at sites L, K, J.

Bathers (location and numbers):

Two bathers at B

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F.Strep No./100ml
L	N/S	N/S	N/S	N/S
K	N/S	N/S	N/S	N/S
J	N/S	N/S	N/S	N/S
H	1000	34.8	70	30
G	1010	34.9	40	60
F	1015	32.0	310	120
D	1020	34.6	70	10
E	1030	34.6	60	210
N	1035	34.6	110	30
C	1040	34.7	130	40
B	1105	34.1	130	50

Sidmouth Beach Survey - 1994

Date 30.6.94	From: 15:45 To: 16:35	Tide Run HW + 4	Time of HW 12:00	Sampler L. BULBECK
-----------------	--------------------------	--------------------	---------------------	-----------------------

Cloud cover 0/8	Weather sunny / calm	Previous rain NIL	Current rain NIL
--------------------	-------------------------	----------------------	---------------------

Wind Speed 0-1	Direction S	Wave height Ripples	Direction N	Slick trajectory -
-------------------	----------------	------------------------	----------------	-----------------------

General observations (plume, debris etc):

No debris, no plume, water looked clean.

Bathers (location and numbers):

3 swimmers at site G, 1 waterskier, 50 - 100 people sitting on town beach.
100-300 people on beach near pt. B approx. 30 bathers.

Sample Point	Time Taken	Salinity g/kg	E.Coll No./100ml	F.Strep No./100ml
L	1545	34.7	50	700
K	1550	34.7	50	1200
J	1555	34.2	10	130
H	1600	33.4	70	70
G	1605	25.1	200	190
F	1610	29.4	90	80
D	1620	33.2	80	130
E	1625	31.7	20	<10
N	1630	33.8	260	110
C	1630	33.6	150	<10
B	1635	34.7	<10	<10

Sidmouth Beach Survey - 1994

Date 6:7:94	From: 13:30 To: 14:45	Tide Run HW - 4	Time of HW 17:54	Sampler L. BULBECK
----------------	--------------------------	--------------------	---------------------	-----------------------

Cloud cover 3/8	Weather Sunny ints.	Previous rain am	Current rain NIL
--------------------	------------------------	---------------------	---------------------

Wind Speed 7 Gust 10	Direction SW	Wave height 1.5	Direction N	Slick trajectory
-------------------------	-----------------	--------------------	----------------	------------------

General observations (plume, debris etc):

No signs of pollution except odd plastic bottle on HW mark.

Bathers (location and numbers):

1 windsurfer at pt. G
<10 paddlers at pt. F
<10 bathers at pt. B

Sample Point Point	Time Taken Taken	Salinity g/kg g/kg	E.Coli No/100ml No./100ml	F.Strep No/100ml No./100ml
L	1330	33.9	800	290
K	1335	34.3	700	300
J	1343	34.1	490	280
H	1350	33.2	500	560
G	1355	28.8	2300	800
F	1400	34.8	10	40
D	1412	34.7	90	80
E	1420	34.7	210	140
N	1427	34.7	130	<10
C	1432	34.7	310	20
B	1445	34.8	120	40

Sidmouth Beach Survey - 1994

Date	From: 10:30	Tide Run	Time of HW	Sampler
13:7:94	To: 11:30	HW	10:30	L. BULBECK

Cloud cover	Weather	Previous rain	Current rain
4/8	Warm/sunny	NIL	NIL

Wind Speed	Direction	Wave height	Direction	Slick trajectory
0 Gust 3	NW	Slight ripple	-	-

General observations (plume, debris etc):

Very clear water, no discoloration

Bathers (location and numbers):

1 at pt. E & C, < 10 at pt. B. <300 sitting along entire length of beach

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F.Strep No./100ml
L	N/S	N/S	N/S	N/S
K	N/S	N/S	N/S	N/S
J	N/S	N/S	N/S	N/S
H	1030	35.0	160	80
G	1040	35.1	100	60
F	1045	35.2	200	70
D	1050	35.1	20	40
E	1100	35.0	70	40
N	1115	35.1	50	100
C	1120	34.7	410	60
B	1130	35.4	20	60

Sidmouth Beach Survey - 1994

Date 25:7:94	From: 11:00 To: 12:00	Tide Run HW + 2	Time of HW 08:58	Sampler L. BULBECK
-----------------	--------------------------	--------------------	---------------------	-----------------------

Cloud cover 8/8	Weather fresh	Previous rain NIL	Current rain NIL
--------------------	------------------	----------------------	---------------------

Wind Speed 7 Gust 8	Direction S	Wave height 0.4	Direction N	Slick trajectory E from outfall
------------------------	----------------	--------------------	----------------	------------------------------------

General observations (plume, debris etc):

Discolored water
Foam visible from F - B
Drainage water going in at sites E + C (via pipe in wall).

Bathers (location and numbers):

H - C < 20
B < 400

Sample Point	Time Taken	Salinity g/kg	E.Coll No./100ml	F.Strep No./100ml
L	N/S	N/S	N/S	N/S
K	N/S	N/S	N/S	N/S
J	N/S	N/S	N/S	N/S
H	1100	34.2	260	130
G	1103	34.5	80	50
F	1105	35.0	<10	<1
D	1110	35.0	20	80
E	1125	34.6	570	230
N	1135	35.0	130	40
C	1140	34.8	1300	170
B	1200	34.5	240	80

Sidmouth Beach Survey - 1994

Date 3:8:94	From: 09:30 To: 10:22	Tide Run HW -6	Time of HW 16:31	Sampler L. BULBECK
----------------	--------------------------	-------------------	---------------------	-----------------------

Cloud cover 8/8 - 7/8	Weather humid/overcast	Previous rain Considerate	Current rain Spells
--------------------------	---------------------------	------------------------------	------------------------

Wind Speed 6	Direction E	Wave height 0.5	Direction W	Slick trajectory
-----------------	----------------	--------------------	----------------	------------------

General observations (plume, debris etc):

Sanitary debris
considerable seaweed on HW mark
Red discoloration.

Bathers (location and numbers):

2 at B

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F.Strep No./100ml
L	1022	34.7	40	20
K	1019	34.7	40	<10
J	1010	34.6	140	110
H	1007	34.6	30	40
G	1003	34.6	200	70
F	1000	31.1	500	480
D	0955	33.7	270	100
E	0945	33.8	400	220
N	0940	34.0	590	120
C	0935	33.7	900	210
B	1200	34.5	240	80

Sidmouth Beach Survey - 1994

Date	From: 08:30	Tide Run	Time of HW	Sampler
11:8:94	To: 09:14	HW - 1	09:56	L. BULBECK

Cloud cover	Weather	Previous rain	Current rain
8/8	overcast/calm	Heavy prev. day	drizzle

Wind Speed	Direction	Wave height	Direction	Slick trajectory
1 gust 3	N	slight swell	S	

General observations (plume, debris etc):

Discolored water - foam along edge
Litter along HW mark.

Bathers (location and numbers):

none

Sample Point	Time Taken	Salinity g/kg	E.Coll No./100ml	F.Strep No./100ml
L	N/S	N/S	N/S	N/S
K	N/S	N/S	N/S	N/S
J	N/S	N/S	N/S	N/S
H	08:30	34.7	1500	480
G	08:40	34.2	1900	130
F	08:50	35.0	490	210
D	08:55	34.9	610	190
E	09:00	34.8	3200	180
N	09:05	34.9	510	280
C	N/S	N/S	N/S	N/S
B	09:15	35.0	100	90

Sidmouth Beach Survey - 1994

Date	From: 09:30	Tide Run	Time of HW	Sampler
18.8.94	To: 10:40	HW + 5	04:47	B. LOXTON

Cloud cover	Weather	Previous rain	Current rain
4/8	warm	showers	NIL

Wind Speed	Direction	Wave height	Direction	Slick trajectory
18 KNOTS	W	1	SW	WEST

General observations (plume, debris etc):

Digger working on outfall pipe.
Discolored water

Bathers (location and numbers):

<10 total between sites E - C

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F.Strep No./100ml
L	09:30	35.0	250	90
K	09:35	35.0	210	110
J	09:40	34.9	210	30
H	09:45	34.6	160	20
G	09:50	34.5	80	40
F	10:00	31.8	130	90
D	10:10	34.6	130	60
E	10:20	34.5	180	50
N	10:25	34.7	120	20
C	10:35	34.8	120	40
B	10:40	34.2	190	50

Sidmouth Beach Survey - 1994

Date	From: 12:00	Tide Run	Time of HW	Sampler
24.8.94	To: 13:30	HW + 3	10:16	A. LOXTON

Cloud cover	Weather	Previous rain	Current rain
6/8	sunny ints	showers	showers

Wind Speed	Direction	Wave height	Direction	Slick trajectory
9-3 knots	SW - NW	0.7 - 0.1	SW	WEST

General observations (plume, debris etc):

Dirty water as rough & swell 200 m off shore.
wind dropped & calm by end

Bathers (location and numbers):

40 + at site B
3 at site N

Sample Point	Time Taken	Salinity g/kg	E.Coll No./100ml	F.Strep No./100ml
L	12:00	35.0	50	10
K	12:10	34.9	90	10
J	12:20	34.9	90	50
H	12:25	34.6	20	30
G	12:30	25.0	310	180
F	12:45	35.0	80	170
D	12:55	34.9	100	100
E	13:00	34.8	60	20
N	13:05	34.9	310	100
C	13:10	34.7	270	130
B	13:30	35.0	210	70

Sidmouth Beach Survey - 1994

Date	From: 12:15	Tide Run	Time of HW	Sampler
01:09:94	To: 1345	HW - 3	1600	A. LOXTON

Cloud cover	Weather	Previous rain	Current rain
4/8	warm / overcast	nil	nil

Wind Speed	Direction	Wave height	Direction	Slick trajectory
6 Knots	NW	0.25	SW	-

General observations (plume, debris etc):

Bathers (location and numbers):

3 PADDLERS AT C

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F.Strep No./100ml
L	12:15	34.8	30	<10
K	12:25	34.7	10	10
J	12:35	34.9	50	10
H	12:40	34.3	460	400
G	12:45	34.0	1100	340
F	13:00	34.9	50	40
D	13:05	34.9	190	60
E	13:20	34.9	240	180
N	13:25	34.9	230	110
C	13:35	34.5	80	170
B	13:45	34.8	30	20

Sldmouth Beach Survey - 1994

Date	From: 11:00	Tide Run	Time of HW	Sampler
13:09:94	To: 12:00	HW - 2	13:10	W. LOXTON

Cloud cover	Weather	Previous rain	Current rain
6/8	SUNNY	YES	NIL

Wind Speed	Direction	Wave height	Direction	Slick trajectory
15 KNOTS	SSW	2.0 M	S	

General observations (plume, debris etc): Dirty water all along beach. Too rough to get to L K J Stream sample taken - high flow Bathers (location and numbers): None 3 at site N
--

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F.Strep No./100ml
L				
K				
J				
H	11:00	32.3	90	30
G	11:10	29.9	270	60
F	11:15	34.6	40	20
D	11:21	34.6	2800	40
E	11:30	34.6	1200	20
N	11:35	34.6	1400	10
C	11:45	34.6	130	40
B	12:00	34.6	40	20
STREAM	11:20	<1	2300	510

Sidmouth Beach Survey - 1994

Date	From: 09:40	Tide Run	Time of HW	Sampler
19:09:94	To: 11:00	HW + 2	08:15	A. LOXTON

Cloud cover	Weather	Previous rain	Current rain
8/8	Heavy drizzle	overnight	H. drizzle

Wind Speed	Direction	Wave height	Direction	Slick trajectory
6 knots	SE	1.0 - 2.0M swell	SSE	SE

General observations (plume, debris etc):

Very rough, dirty water 200m out from beach
Too rough too get to L, K and J and sample taken ~50M from H
Sewage debris at N,C and B

Bathers (location and numbers):

None

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F:Strep No./100ml
L				
K				
J				
H (50M from)	09:40	33.3	410	430
G	09:45	28.4	800	1300
F	10:00	34.6	290	160
D	10:15	34.6	220	110
E	10:25	33.6	6300	2200
N	10:40	34.6	4100	1900
C	10:45	32.7	220	350
B	11:00	34.5	150	180
STREAM	09:50	<1	3100	4300

Sidmouth Beach Survey - 1994

Date 28:09:94	From: 09:30 To: 10:50	Tide Run HW - 2	Time of HW 12:15	Sampler A. LOXTON
------------------	--------------------------	--------------------	---------------------	----------------------

Cloud cover 4/8	Weather sunny ints	Previous rain showers	Current rain NIL
--------------------	-----------------------	--------------------------	---------------------

Wind Speed 0 Knotts	Direction Nil	Wave height Nil	Direction	Slick trajectory
------------------------	------------------	--------------------	-----------	------------------

General observations (plume, debris etc):

Flat calm, just slight ripples

Bathers (location and numbers):

One at C

Sample Point	Time Taken	Salinity g/kg	E.Coli No./100ml	F.Strep No./100ml
L	09:30	34.8	<10	10
K	09:40	34.4	70	90
J	09:45	34.8	<10	<10
H	09:50	34.3	40	<10
G	09:55	34.8	70	20
F	10:05	34.8	90	10
D	10:30	34.8	90	20
E	10:35	34.5	500	180
N	10:40	34.7	70	20
C	10:45	34.0	2200	470
B	10:50	34.6	1100	3500
STREAM	10:00	<1	1000	190

APPENDIX III

Sidmouth Beach Samples - 1996

Date: 09/05/96	From: 09:15 To: 10:55	Tide run: HW -1	Time of HW: 10:46	Sampler: AL
-------------------	--------------------------	--------------------	----------------------	----------------

Weather: Cool	Cloud cover: 7/8	Previous rain: NIL	Current rain: NIL
------------------	---------------------	-----------------------	----------------------

Wind speed: 9 Knts	Direction: NE	Wave height: 1 M	Direction: SW	Slick trajectory: NOT VISIBLE
-----------------------	------------------	---------------------	------------------	----------------------------------

General observations (Plume, debris etc.)

Bathers (location and numbers)

None

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L				
K				
J	09:15	34.8	9	<10
H	09:25	34.8	<10	<10
R. Sid	09:35	<1.0	530	18
G	09:30	34.8	18	9
F	09:40	33.5	36	9
E	09:45	34.7	<10	<10
D	10:00	34.7	9	<10
N	10:25	34.8	18	9
C				
B	10:55	34.7	<10	<10

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date: 13/05/96	From: 17:00 To: 18:30	Tide run: HW +1	Time of HW: 16:27	Sampler: WL
--------------------------	--	---------------------------	-----------------------------	-----------------------

Weather: COOL	Cloud cover: 1/8	Previous rain: NIL	Current rain: NIL
-------------------------	----------------------------	------------------------------	-----------------------------

Wind speed: 5 knts	Direction: SE	Wave height: 0.3 M	Direction: SE	Slick trajectory: NE
------------------------------	-------------------------	------------------------------	-------------------------	--------------------------------

General observations (Plume, debris etc.)

Bathers (location and numbers)

None

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	17:00	32.9	54	18
K	17:05	33	36	27
J	17:10	34	18	45
H	17:20	34.7	<10	73
R. Sld	17:25	<1.0	36	9
G	17:30	34.7	9	117
F	17:40	34.5	9	99
E	17:45	34.8	<10	36
D	18:00	34.9	<10	18
N	18:10	34.8	<10	<10
C	18:20	34.8	<10	<10
B	18:30	34.7	<10	9

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date: 20/05/96	From: 10:20 12:10	Tide run: HW +2	Time of HW: 09:12	Sampler: PR
-------------------	----------------------	--------------------	----------------------	----------------

Weather: Cool / mixed	Cloud cover: 3/4	Previous rain: Showers	Current rain: Showers
--------------------------	---------------------	---------------------------	--------------------------

Wind speed: 5 knts	Direction: SW	Wave height: 2 foot	Direction: NE	Slick trajectory: NE
-----------------------	------------------	------------------------	------------------	-------------------------

General observations (Plume, debris etc.)

None

Bathers (location and numbers)

None

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	10:20	34.9	468	36
K	10:30	35	160	27
J	10:44	34.8	54	<10
H	10:52	34.8	45	<10
R. Sld	11:08	<1.0	3500	230
G	11:01	34.7	45	<10
F	11:21	34.8	45	9
E	11:27	34.9	45	<10
D	11:33	34.1	410	27
N	12:00	34.9	27	9
C	12:04	34.8	18	<10
B	12:10	34.7	36	<10

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date: 30/05/96	From: 12:56 To: 14:35	Tide run: HW -4	Time of HW: 17:45	Sampler: PR
--------------------------	--	---------------------------	-----------------------------	-----------------------

Weather: Cool / mixed	Cloud cover: 3/4	Previous rain: showers	Current rain: showers
---------------------------------	----------------------------	----------------------------------	---------------------------------

Wind speed: 5 knts	Direction: SE	Wave height: 2 foot	Direction: NW	Slick trajectory: NW
------------------------------	-------------------------	-------------------------------	-------------------------	--------------------------------

General observations (Plume, debris etc.)

Some sewage plastics along beach East of Sidmouth at sites L to G

Bathers (location and numbers)

None

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	12:56	34.7	81	17
K	13:02	34.7	18	27
J	13:09	34.8	270	27
H	13:16	34.5	86	27
R. Sid	13:30	<1.0	1182	171
G	13:22	33.1	153	18
F	13:51	34.2	54	<10
E	13:55	34.4	45	9
D	14:03	34.3	184	18
N	14:07	33.9	1182	27
C	14:30	33.8	132	18
B	14:35	33.6	260	<10

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date: 06/06/96	From: 12:50 To: 14:45	Tide run: HW +3	Time of HW: 10:55	Sampler: PR
-------------------	--------------------------	--------------------	----------------------	----------------

Weather: HOT	Cloud cover: NONE	Previous rain: NONE	Current rain: NONE
-----------------	----------------------	------------------------	-----------------------

Wind speed: 1 Knts	Direction: SOUTH	Wave height: FLAT	Direction: -	Slick trajectory: NOT VISIBLE
-----------------------	---------------------	----------------------	-----------------	----------------------------------

General observations (Plume, debris etc.)

Foam at sites F, E, D & C

Bathers (location and numbers)

2 paddlers at site E.

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	12:50	34.8	27	9
K	13:05	34.8	36	<10
J	13:12	34.8	27	<10
H	13:30	34.4	18	<10
R. Sid	13:35	<1.0	360	189
G	13:27	29.7	72	36
F	13:44	31.7	9	9
E	13:48	34.8	45	27
D	13:55	34.4	36	<10
N	14:00	34.9	36	<10
C	14:39	34.4	27	<10
B	14:45	34.7	<10	<10

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date: 13/06/96	From: 11:10 To: 12:26	Tide run: HW+6	Time of HW: 05:19	Sampler: PR
-------------------	--------------------------	-------------------	----------------------	----------------

Weather: Hot	Cloud cover: None	Previous rain: None	Current rain: None
-----------------	----------------------	------------------------	-----------------------

Wind speed: 1 knts	Direction: East	Wave height: minimal	Direction: Not visible	Slick trajectory: Not visible
-----------------------	--------------------	-------------------------	---------------------------	----------------------------------

General observations (Plume, debris etc.)

Amorphous slick in area of outfall, no real trajectory.

Bathers (location and numbers)

4 bathers at site C

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	11:10	34.7	p	<10
K	11:19	34.9	18	9
J	11:27	34.9	<10	<10
H	11:32	34.7	<10	<10
R. Sid	11:32	<1.0	843	200
G	11:27	31	54	9
F	11:42	32.8	72	9
E	11:48	32.2	45	<10
D	11:56	28.1	168	220
N	11:59	33.1	9	63
C	12:20	32.9	<10	9
B	12:26	34.1	<10	<10

Faecal colliforms as confirmed.

Sidmouth Beach Samples - 1996

Date:	From: 13:20	Tide run:	Time of HW:	Sampler:
19/06/96	To: 15:02	HW +4	09:25	PR

Weather:	Cloud cover:	Previous rain:	Current rain:
Hot / heat haze	none	none	none

Wind speed:	Direction:	Wave height:	Direction:	Slick trajectory:
5 knts	S	1 foot	to N	not visible

General observations (Plume, debris etc.)

Sewage plastics / debris in surf at site G

Bathers (location and numbers)

1 paddler at site N
5 paddlers site C
1 paddler site B

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	13:20	34.8	<10	<10
K	13:30	34.9	<10	<10
J	13:36	34.9	<10	<10
H	13:45	34.9	18	27
R. Sid	14:01	<1	910	200
G	13:55	34.6	54	1225
F	14:11	34.3	210	45
E	14:15	32.6	3800	430
D	14:26	31.7	27	117
N	14:32	31.4	54	27
C	14:37	32.1	9	<10
B	15:02	34.4	<10	<10

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date: 04/07/96	From: 12:55 To: 14:14	Tide run: HW +3	Time of HW: 10:00	Sampler: PR
--------------------------	--	---------------------------	-----------------------------	-----------------------

Weather: Warm	Cloud cover: 3/4	Previous rain: Occasional	Current rain: Occasional heavy
-------------------------	----------------------------	-------------------------------------	--

Wind speed: 21 knts	Direction: NW	Wave height: 4 foot	Direction: from SW	Slick trajectory: to E
-------------------------------	-------------------------	-------------------------------	------------------------------	----------------------------------

General observations (Plume, debris etc.)

area.

Bathers (location and numbers)

None.

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	12:55	34.8	65	54
K	13:04	34.8	113	72
J	13:10	34.9	45	45
H	13:16	34.6	99	27
R. Sid	13:28	1.5	1273	450
G	13:22	33.8	122	27
F	13:36	34.8	45	18
E	13:40	34.7	27	9
D	13:45	33.7	130	63
N	13:49	34.8	36	<10
C	14:00	34.2	36	54
B	14:14	34.8	45	27

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date:	From: 06:30	Tide run:	Time of HW:	Sampler:
17/07/96	To: 07:50	HW -1	08:32	WL

Weather:	Cloud cover:	Previous rain:	Current rain:
FAIR	8/8	NIL	NIL

Wind speed:	Direction:	Wave height:	Direction:	Slick trajectory:
10 Knts	E	1.5 M	SE	NOT VISIBLE

General observations (Plume, debris etc.)

HEAVY SWELL, VERY DIRTY WATER AND SOME FOAM

Bathers (location and numbers)

ONE IN DIFFICULTIES

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L				
K				
J				
H	06:45	35	45	90
R. Sid	06:48	<1	2100	790
G	06:58	34.9	108	18
F	07:10	35	18	45
E	07:15	34.8	107	81
D				
N	07:35	34.9	94	63
C	07:40	34.9	18	9
B	07:50	35	9	9

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date:	From: 08:50	Tide run:	Time of HW:	Sampler:
25/07/96	To: 10:30	HW - 4	13:50	NH

Weather:	Cloud cover:	Previous rain:	Current rain:
HOT, SUNNY	1/8	NIL	NIL

Wind speed:	Direction:	Wave height:	Direction:	Slick trajectory:
1-2	N	0.10 M	S	NOT VISIBLE

General observations (Plume, debris etc.)

Bathers (location and numbers)

None.

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	10:30	35	<10	27
K	10:20	35	<10	9
J	10:10	35	99	<10
H	09:59	34.9	<10	<10
R. Sid	09:50	<1	2520	330
G	09:45	27.7	97	<10
F	09:40	34.9	144	18
E	09:35	34.9	113	90
D	09:25	34.7	<10	<10
N	09:15	35	<10	9
C	09:05	34.5	27	36
B	08:50	34.7	<10	9

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date:	From: 10:00	Tide run:	Time of HW:	Sampler:
31/07/96	To: 11:40	HW +3	08:08	AL

Weather:	Cloud cover:	Previous rain:	Current rain:
WARM	7/8	DRIZZLE	NIL

Wind speed:	Direction:	Wave height:	Direction:	Slick trajectory:
2 Knts	NE	NIL		NW

General observations (Plume, debris etc.)

DIRTY WATER AT SITE B

Bathers (location and numbers)

None.

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	10:00	34.8	198	135
K	10:10	34.7	640	350
J	10:20	34.9	400	230
H	10:30	34.6	108	36
R. Sid	10:35	1	2300	2300
G	10:40	24.2	2500	1455
F	10:55	34.9	81	27
E	11:05	35	54	45
D	11:15	34.8	137	72
N	11:25	34.8	210	72
C	11:30	34.9	162	54
B	11:40	34.7	113	200

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date:	07/08/96	From: 08:30 To: 10:05	Tide run: HW -5	Time of HW: 13:15	Sampler: AL
-------	----------	--------------------------	--------------------	----------------------	----------------

Weather: WARM, SUNNY	Cloud cover: 7/8	Previous rain: SHOWERS	Current rain: NIL
-------------------------	---------------------	---------------------------	----------------------

Wind speed: 5 Knts	Direction: W	Wave height: MINIMAL	Direction: SW	Slick trajectory: POOLED + SSW
-----------------------	-----------------	-------------------------	------------------	-----------------------------------

General observations (Plume, debris etc.)

Bathers (location and numbers)

2 AT N
2 PADDLERS AT C
1 AT C

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	08:30	34.7	105	36
K	08:40	34.8	300	54
J	08:50	34.7	210	45
H	09:00	34.7	45	9
R. Sid	09:15	<1	3000	818
G	09:10	33.9	189	54
F	09:20	35	36	63
E	09:30	35	45	<10
D	09:40	34.9	94	18
N	09:50	35	108	9
C	09:55		168	<10
B	10:05	34.6	220	36

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date:	From: 14:40	Tide run:	Time of HW:	Sampler:
12/08/96	To: 15:50	HW -3	18:28	AL

Weather:	Cloud cover:	Previous rain:	Current rain:
HOT, SUN INTERVALS	5/8	NIL	NIL

Wind speed:	Direction:	Wave height:	Direction:	Slick trajectory:
0 - 1 Knts	SW	0.25 M	SW	N

General observations (Plume, debris etc.)

Bathers (location and numbers)

20 AT SITES L TO G
70 AT SITES F TO C
30+AT SITE B

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	14:40	34.2	18	<10
K	14:50	34.9	<10	18
J	15:00	34.6	18	81
H	15:10	34.9	27	9
R. Sid	15:20	<1	2000	1182
G	15:15	31.5	350	81
F	15:24	33.6	162	9
E	15:30	34.5	18	63
D	15:35	34.6	126	90
N	15:42	34.8	72	18
C	15:45	34.5	490	72
B	15:50	34.6	72	45

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date:	From: 12:30	Tide run:	Time of HW:	Sampler:
21/08/96	To: 15:00	HW +2	11:27	NH

Weather:	Cloud cover:	Previous rain:	Current rain:
----------	--------------	----------------	---------------

Wind speed:	Direction:	Wave height:	Direction:	Slick trajectory:
4-5 Knts	200	0.25 M	SW	N

General observations (Plume, debris etc.)

Bathers (location and numbers)

100+

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	14:45	33.8	18	9
K	14:30	33	89	9
J	14:15	33	18	27
H	14:00	32.9	117	36
R. Sid	15:00	<1	2000	710
G	13:50	34.4	18	90
F	13:35	34.9	9	<10
E	13:20	34.9	9	9
D	13:10	34.9	9	<10
N	13:06	34.9	9	<10
C	12:45	34.8	<10	18
B	12:30	34.7	<10	<10

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date:	From: 07:30	Tide run:	Time of HW:	Sampler:
29/08/96	To: 08:35	HW	07:53	WL

Weather:	Cloud cover:	Previous rain:	Current rain:
FINE	3/8	THUNDER STORMS	NIL

Wind speed:	Direction:	Wave height:	Direction:	Slick trajectory:
8 Knts	WNW	SMOOTH	-	NOT VISIBLE

General observations (Plume, debris etc.)

WEED ON STRAND LINE AT SITES D,N AND C HAD STRONG SMELL

Bathers (location and numbers)

NONE

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L				
K				
J	07:25	34.7	252	126
H	07:30	34.7	200	180
R. Sid	07:35	<1	6500	1818
G	07:45	34.8	270	63
F	07:55	34.7	290	144
E	08:10	34.8	480	210
D	08:15	34.8	603	200
N	08:20	34.8	9	18
C	08:30	34.8	<10	27
B	08:35	34.9	63	45

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date: 06/09/96	From: 10:00	Tide run: HW - 2	Time of HW: 13:08	Sampler: PR
	To: 1130			

Weather: WARM	Cloud cover: 0/0	Previous rain: NIL	Current rain: NIL
------------------	---------------------	-----------------------	----------------------

Wind speed: 3 Knts	Direction: E	Wave height: 1 M	Direction: SE	Slick trajectory: NOT VISIBLE
-----------------------	-----------------	---------------------	------------------	----------------------------------

General observations (Plume, debris etc.)

Bathers (location and numbers)

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	10:00	35	<10	<10
K	10:06	34.9	<10	18
J	10:12	34.9	9	18
H	10:17	34.9	36	18
R. Sid	10:32	<1	545	360
G	10:25	34.9	18	18
F	10:51	34.2	9	<10
E	10:55	34.7	400	81
D	11:00	34.7	27	9
N	11:05	34.8	36	<10
C	11:24	34.8	113	27
B	11:30	34.8	<10	27

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date: 12/09/96	From: 09:10 To: 10:23	Tide run: HW +2	Time of HW: 07:10	Sampler: AL
-------------------	--------------------------	--------------------	----------------------	----------------

Weather: MILD, SUNNY INT.	Cloud cover: 6/8	Previous rain: NIL	Current rain: NIL
------------------------------	---------------------	-----------------------	----------------------

Wind speed: 1 Knts	Direction: NW	Wave height: NIL	Direction: -	Slick trajectory: SE
-----------------------	------------------	---------------------	-----------------	-------------------------

General observations (Plume, debris etc.)

SMELL OF SEWAGE AT R. SID SITE

Bathers (location and numbers)

2 AT D
1 AT N

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	09:10	34.5	189	54
K	09:25	34.4	280	90
J	09:32	34.6	69	18
H	09:38	34.3	79	63
R. Sid	09:46	<1	2100	560
G	09:43	33	176	1364
F	09:50	34.9	200	180
E	10:00	34.6	63	18
D	10:10	34.6	45	36
N	10:15	34.8	9	9
C	10:19	34.8	<10	9
B	10:23	34.7	27	<10

Faecal coliforms as confirmed.

Sidmouth Beach Samples - 1996

Date: 24/09/96	From: 13:50	Tide run: HW - 2	Time of HW: 17:08	Sampler: AL
	To: 15:15			

Weather: COOL, WINDY	Cloud cover: 8/8	Previous rain: DRIZZLE	Current rain: NIL
-------------------------	---------------------	---------------------------	----------------------

Wind speed: 7Knts	Direction: SW	Wave height: 1 M	Direction: SW	Slick trajectory: SW
----------------------	------------------	---------------------	------------------	-------------------------

General observations (Plume, debris etc.)

DIRTY WATER AT B

Bathers (location and numbers)

NONE

Sample location	Time taken	Salinity g/kg	F.coliforms No./100ml	F.strep No. /100ml
L	13:50	34.5	9	54
K	14:00	34.4	9	27
J	14:08	33.7	108	99
H	14:15	34.1	225	99
R. Sid	14:20	<1	106	640
G	14:25	33.3	86	135
F	14:30	34.4	18	36
E	14:48	34.5	210	81
D	14:53	34.6	620	126
N	14:55	34.7	9	18
C	15:05	34.7	<10	9
B	15:15	34.7	18	18

Faecal coliforms as confirmed.