



MONTHLY RECEIVING WATERS MONITORING REPORT FOR THE SOUTH BAY OCEAN OUTFALL

SOUTH BAY WATER RECLAMATION PLANT

NPDES PERMIT No. CA 0109045
SDRWQCB Order No. R9-2013-0006

MARCH 2017

Environmental Monitoring and Technical Services
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Public Utilities Department

Environmental Monitoring & Technical Services Division

April 30, 2017

David Gibson, Executive Officer
California Regional Water Quality Control Board
San Diego Region
2375 Northside Drive, Suite 100
San Diego, CA 92108

Attention: POTW Compliance Unit

Dear Mr. Gibson:

Enclosed is the March 2017 Monthly Receiving Waters Monitoring Report for the South Bay Ocean Outfall, South Bay Water Reclamation Plant as required per Order No. R9-2013-0006, NPDES Permit No. CA0109045.

This report includes raw ocean monitoring data and summaries of water quality parameters and ocean conditions measured during the month for the South Bay outfall region. Also included are summaries of compliance with the bacterial water-contact standards specified in the California Ocean Plan. These data are also presented in the monthly report submitted by the International Boundary and Water Commission, U.S. Section for discharge from the South Bay International Wastewater Treatment Plant (Order No. R9-2014-0009, NPDES Permit No. CA0108928).

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in blue ink, appearing to read "Peter S. Vroom".

Peter S. Vroom, Ph.D., Deputy Director, Public Utilities Department

TDS/asb

cc: U.S. Environmental Protection Agency, Region 9

INTRODUCTION

Monthly reports of water quality and ocean conditions from Playa Blanco, Mexico to Coronado, USA are submitted to the San Diego Regional Water Quality Control Board and U.S. EPA Region 9 in accordance with Order No. R9-2013-0006, NPDES Permit No. CA0109045, for the South Bay Water Reclamation Plant (SBWRP), South Bay Ocean Outfall (SBOO). Order No. R9-2013-0006 superseded Order No. R9-2006-0067 effective April 4, 2013. This report includes receiving waters monitoring data collected from all shore, kelp and offshore stations specified in the above order. Data for influent and effluent monitoring activities for the SBWRP are presented in separate reports.

MATERIALS AND METHODS

Shore Stations

Water quality monitoring was conducted at 11 stations located along the shore from Playa Blanca, Mexico to Coronado, USA (see station locations map). Three sites are located south of the international border (stations S0, S2, S3), while eight sites are in the United States (stations S4–S6 and S8–S12).

Seawater samples were collected from the surf zone at each station on a weekly basis. These samples were subsequently transported to the City's Marine Microbiology Laboratory and analyzed for the presence of total coliform, fecal coliform, and *Enterococcus* bacteria. Visual observations of water color and clarity, surf height, human or animal activity, and weather conditions were recorded at the time of sample collection. Wind speed and direction were measured using a hand-held anemometer with a compass.

Kelp Bed Stations

Seven kelp bed and other nearshore stations (I19, I24, I25, I26, I32, I39, I40; collectively referred to as "kelp" stations herein) were sampled five times during the month according to NPDES permit specifications. Six stations (I19, I24, I25, I26, I32, I40) are located along the 9-m depth contour, and one (I39) is located along the 18-m depth contour. Three of these stations, I25, I26, and I39, were selected based on their proximity to suitable substrates for the Imperial Beach kelp bed (see station locations map); however, this kelp bed has been historically transient and variable in terms of size and density. Thus, these three stations are only occasionally located within an area where kelp is actually found.

The seven kelp stations are sampled on a weekly basis during the month. Routine monitoring at each kelp site consists of collecting seawater samples at three discrete depths for bacteriological analyses (total coliforms, fecal coliforms, and *Enterococcus* bacteria) and generating water column profiles of various physical/chemical parameters, including water temperature, salinity, density, dissolved oxygen, pH, chlorophyll *a*, and transmissivity. Visual observations of weather and water conditions are also recorded at all stations.

Seawater samples at the kelp bed stations are primarily collected using a CTD-integrated rosette sampler with Niskin bottles. Aliquots for bacteriological analyses were drawn from these bottles into sterile sample bottles for processing at the City's Marine Microbiology Laboratory. Water column profiles of the various physical/chemical parameters were taken using a CTD. The CTD collected these physical/chemical data at a rate of eight scans per second. The data were then

internally averaged using the CTD proprietary software, Seasoft, to create water column profiles equivalent to one reading per meter. Additionally, CTD profile data for each water sample depth are presented with the bacteriological data.

Offshore Stations

Quarterly offshore water quality sampling is typically conducted over three days during February, May, August, and November for a total of 40 stations during each month (see station locations map). These offshore stations (I1–I40) are arranged in a grid surrounding the discharge site, and are generally located along the 9, 19, 28, 38, and 55-m depth contours. The seven offshore sites designated as kelp bed stations (described above) are included as part of the monthly offshore water quality sampling, however the data from these seven stations are reported within the kelp bed station section of the report with the other four days of kelp bed water quality sampling. Monitoring at all sites included measurements of various physical/chemical parameters, including water temperature, salinity, density, dissolved oxygen, pH, chlorophyll *a*, transmissivity, and chromomorphic dissolved organic matter (CDOM). Visual observations of weather and water conditions were also recorded at all stations. Seawater samples for the analysis of indicator bacteria, suspended solids, and oil and grease concentrations were collected at 28 of the stations.

At these offshore stations, water samples for bacteriological, suspended solids, and oil and grease analyses were typically collected using a rosette sampler with Niskin bottles. Measurements of the physical/chemical parameters listed above were taken using a Sea-Bird CTD. Additionally, CTD profile data for depths closest to those at which bacteriological samples were collected were extracted from the CTD profiles and are presented with the bacteriological data.

Bacteriological Reporting and Quality Assurance

Estimated values for bacteriological analyses are denoted by greater than (>), less than (<), or estimated (e) qualifiers and result from plates with colony counts above or below the permissible counting limits established in Bordner et al. (1978)^[1]. This document defines membrane filtration limits of 20–80 colonies per plate for total coliforms and 20–60 colonies per plate for fecal coliforms and *Enterococcus*. No Data (ND) is reported if plate counts from all dilutions have a total colony count of >200 per plate.

Results of the bacteriological analysis of seawater samples collected from each of the shore, kelp bed, and offshore stations located within State waters are assessed relative to the geometric mean and single sample maximum water-contact standards specified in the California Ocean Plan (Ocean Plan). The seven standards are defined as follows:

30-day Geometric Mean: The following standards are based on the geometric mean of the five most recent samples from each site.

- (1) Total coliform density shall not exceed 1000 CFU/100 mL;
- (2) Fecal coliform density shall not exceed 200 CFU/100 mL;
- (3) *Enterococcus* density shall not exceed 35 CFU/100 mL.

^[1]Bordner, R., J. Winter, and P. Scarpino (eds.). (1978). Microbiological Methods for Monitoring the Environment: Water and Wastes, EPA Research and Development, EPA-600/8-78-017. 337 p.

Single Sample Maximums:

- (1) Total coliform density shall not exceed 10,000 CFU/100 mL;
- (2) Fecal coliform density shall not exceed 400 CFU/100 mL;
- (3) *Enterococcus* density shall not exceed 104 CFU/100 mL;
- (4) Total coliform density shall not exceed 1,000 CFU/100 mL when the fecal coliform/total coliform ratio exceeds 0.1.

Compliance with the seven Ocean Plan standards are summarized below for the stations located in USA waters. In contrast, no such compliance summaries are presented for the three shore stations located in Mexican waters south of the International Border (i.e., S0, S2, and S3) since this region is not subject to the Ocean Plan standards.

Quality controls of bacteriological data include laboratory and field duplicate analyses. Laboratory duplicates are performed on approximately 10% of the water quality samples, while field duplicates are performed six times a month (see Appendix A). Laboratory duplicates represent two aliquots of the original sample that are split in the laboratory and analyzed by the same analyst using identical procedures within the same analytical run. The results of these analyses provide a measure of intra-analyst precision. In contrast, field duplicates represent two separate samples collected at the same time from the same site, which are handled under identical circumstances and treated exactly the same throughout field and lab procedures. The results of these analyses provide a measure of precision associated with sample collection, preservation, storage, and lab procedures. The sign test (see Gilbert, 1987) is used to statistically compare both the results from the laboratory duplicates, as well as the results from the field duplicates. These data will be further analyzed in the City's 2017 Quality Assurance Report, which will be completed in March 2018.

SUMMARY OF RESULTS

➤ **Shoreline Water Quality Sampling**

- Because of site access restrictions in Mexico, the South Bay shoreline sampling is carried out on the same day each week (i.e., Tuesday) in order to coordinate sampling between the Mexican and USA based stations. Seawater samples at the three shore stations located south of the USA/Mexico border (i.e., stations S0, S2 and S3) are presently collected by the Comisión Internacional de Límites y Aguas (CILA) and transported to the IBWC for subsequent delivery to the City's Marine Microbiology Lab, while samples from the eight stations located in USA waters are sampled by City staff.
- During March, each of the eight shore stations located north of the border was out of compliance with various California Ocean Plan (Ocean Plan) water contact standards (see below); these standards do not apply to stations located in Mexican waters.
 - The 30-day geometric mean standard for total coliform bacteria was exceeded at stations S5, S10, S11, and S12 on multiple days during the month.
 - The 30-day geometric mean standard for fecal coliform bacteria was exceeded at stations S5 and S11 on multiple days during the month.

- The 30-day geometric mean standard for *Enterococcus* was exceeded at stations S4, S5, S6, S8, S9, S10, S11, and S12 on multiple days during the month.
 - The single sample maximum (SSM) standards for total and fecal coliform bacteria were exceeded at station S5 on March 21.
 - The SSM standard for *Enterococcus* was exceeded at stations S5, S6, S10, S11, and S12 on March 7, and at station S5 on March 21.
 - The SSM standard that states total coliform densities shall not exceed 1000 CFU/100 mL when the fecal:total ratio exceeds 0.1 was exceeded at station S5 on March 21.
 - Per permit requirements, resamples were collected in response to these SSM exceedances (see Table 2.8 for details).
- Although the Ocean Plan standards do not apply to this station, bacteria densities exceeded one or more benchmark levels (i.e., total coliforms >10,000 CFU/100mL; fecal coliforms >400 CFU/100 mL; *Enterococcus* >104 CFU/100 mL; total >1000 CFU/100 mL & F:T ratio >0.1) in the seawater samples collected at station S0 on multiple days during the month.
- Historical analyses of Ocean Plan compliance rates for the South Bay outfall shore and kelp monitoring stations, combined with the results of satellite imagery data, suggest that outflows from the Tijuana River and Los Buenos Creek, as well as surface runoff during or after rain events (storms), are likely to be the cause of impacted water quality along the shore and in near shore recreational waters in the South Bay region. See the City of San Diego's most recent *South Bay Ocean Outfall Annual Receiving Waters Monitoring and Assessment Report* for details (<http://www.sandiego.gov/mwwd/environment/oceanmonitor/reports/index.shtml>).
- Notable visual observations for March included: a sewage-like odor at stations S5 and S6 on March 5, and flow from a storm drain at station S0 on March 7.

➤ **Kelp Bed Water Quality Sampling**

- The seven kelp bed water quality stations (I19, I24, I25, I26, I32, I39, I40) were sampled five times during March (i.e. March 3, 9, 18, 22, 26).
- During March, six of the seven stations were out of compliance with various Ocean Plan water contact standards (see below).
 - The 30-day geometric mean standard for total coliform bacteria was exceeded at stations I24, I25, and I40 on multiple days during the month.
 - The 30-day geometric mean standard for fecal coliform bacteria was exceeded at station I40 on multiple days during the month.
 - The 30-day geometric mean standard for *Enterococcus* was exceeded at stations I19, I24, I25, I26, I32, and I40 on multiple days during the month.
 - The SSM standard for *Enterococcus* was exceeded at stations I19, I24, I25, I26, I32, and I40 on one or more days during the month.
 - The SSM standard that states total coliform densities shall not exceed 1000 CFU/100 mL when the fecal:total ratio exceeds 0.1 was exceeded at stations I24, I25, and I32 on March 3.
- Water column temperatures ranged from 11.67 to 16.88°C. The difference between surface and bottom waters ranged from approximately 0.50 to 2.95°C, indicating the water column was stratified at some of these sites during the month.

- Chlorophyll *a* concentrations ranged from 0.44 to 19.77 µg/L at these stations, suggesting the presence of phytoplankton blooms during the month.
 - Notable visual observations for March included a sewage-like odor at station I40 on March 3 and 22.
- **Offshore Water Quality Sampling**
- Quarterly sampling was not conducted during March at the offshore stations. The next quarterly sampling is scheduled for May 2017.



TABLES AND FIGURES



Figure 1.1 Station Map

Shore Stations

Table 2.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for total coliform bacteria at the SBOO shore stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >1,000 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 Mar 2017	175	5655	390	116	133	828	2420	377
02 Mar 2017	179	4693	450	451	186	919	2639	1281
03 Mar 2017	179	4693	450	451	186	919	2639	1281
04 Mar 2017	179	4271	450	451	186	747	2182	1281
05 Mar 2017	179	4271	450	451	186	747	2182	1281
06 Mar 2017	179	3826	450	451	186	874	1843	1281
07 Mar 2017	185	3190	517	301	173	967	1806	1194
08 Mar 2017	185	2789	517	301	173	967	1256	1194
09 Mar 2017	130	2379	450	266	208	1015	1229	865
10 Mar 2017	130	2379	450	266	208	1015	1229	865
11 Mar 2017	130	1966	838	266	208	1015	1229	865
12 Mar 2017	130	1906	838	266	208	1015	1229	865
13 Mar 2017	130	1906	838	266	208	1015	1229	865
14 Mar 2017	118	3471	457	118	96	786	949	582
15 Mar 2017	118	3471	457	118	96	786	949	582
16 Mar 2017	265	4120	823	266	208	1316	1787	1452
17 Mar 2017	265	4120	823	266	208	1316	1787	1452
18 Mar 2017	265	4120	823	266	208	1316	1787	1452
19 Mar 2017	265	4120	823	266	208	1316	1787	1452
20 Mar 2017	265	4120	823	266	208	1316	1787	1452
21 Mar 2017	118	4791	532	173	141	655	949	711
22 Mar 2017	118	4791	532	173	141	655	949	711
23 Mar 2017	100	2462	589	136	104	892	1151	735
24 Mar 2017	100	2462	589	136	104	892	1151	735
25 Mar 2017	100	1948	589	136	104	892	1151	735
26 Mar 2017	100	1948	589	136	104	892	1151	735
27 Mar 2017	100	1442	589	136	104	892	1151	735
28 Mar 2017	113	1127	335	111	61	473	586	403
29 Mar 2017	113	771	335	111	61	473	586	403
30 Mar 2017	42	465	155	41	20	234	302	193
31 Mar 2017	42	465	155	41	20	234	302	193

* Geometric mean calculated using n<5

Table 2.2

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for fecal coliform bacteria at the SBOO shore stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >200 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 Mar 2017	21	2488	65	39	23	74	397	38
02 Mar 2017	39*	2114	68	74	28	56	359	65
03 Mar 2017	39*	2114	68	74	28	56	359	65
04 Mar 2017	39*	1992	68	74	28	39	299	65
05 Mar 2017	39*	1992	68	74	28	39	299	65
06 Mar 2017	39*	1715	68	74	28	41	211	65
07 Mar 2017	30	1249	67	46	18	48	183	60
08 Mar 2017	30	1035	67	46	18	48	91	60
09 Mar 2017	22*	828	60	37	19	57	85	41
10 Mar 2017	22*	828	60	37	19	57	85	41
11 Mar 2017	22*	634	94	37	19	57	85	75
12 Mar 2017	22*	657	94	37	19	57	85	75
13 Mar 2017	22*	657	94	37	19	57	85	75
14 Mar 2017	18	998	60	22	13	39	65	41
15 Mar 2017	18	998	60	22	13	39	65	41
16 Mar 2017	32*	1300	102	37	19	71	131	75
17 Mar 2017	32*	1300	102	37	19	71	131	75
18 Mar 2017	32*	1300	102	37	19	71	131	75
19 Mar 2017	32*	1300	102	37	19	71	131	75
20 Mar 2017	32*	1300	102	37	19	71	131	75
21 Mar 2017	18	1664	64	22	13	39	79	41
22 Mar 2017	18	1664	64	22	13	39	79	41
23 Mar 2017	16*	818	71	21	11	50	105	41
24 Mar 2017	16*	818	71	21	11	50	105	41
25 Mar 2017	16*	695	71	21	11	50	105	41
26 Mar 2017	16*	695	71	21	11	50	105	41
27 Mar 2017	16*	476	71	21	11	50	105	41
28 Mar 2017	14	262	44	14	8	33	54	25
29 Mar 2017	14	152	44	14	8	33	54	25
30 Mar 2017	6*	75	16	4	2	13	20	8
31 Mar 2017	6*	75	16	4	2	13	20	8

* Geometric mean calculated using n<5

Table 2.3

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for *Enterococcus* at the SBOO shore stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >35 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 Mar 2017	56	2562	118	38	76	173	396	63
02 Mar 2017	74	2282	130	77	78	156	433	180
03 Mar 2017	74	2077	162	61	78	143	374	206
04 Mar 2017	74	1903	159	61	78	139	337	206
05 Mar 2017	74	2108	153	61	78	139	337	183
06 Mar 2017	74	1903	139	61	78	151	305	183
07 Mar 2017	71	1669	169	60	78	159	341	206
08 Mar 2017	71	1487	270	60	78	159	218	206
09 Mar 2017	57	1217	264	52	107	148	208	175
10 Mar 2017	57	1210	264	52	107	148	193	132
11 Mar 2017	97	1057	264	75	107	143	264	156
12 Mar 2017	97	897	264	75	107	132	198	156
13 Mar 2017	97	897	264	75	107	132	198	156
14 Mar 2017	72	1076	224	45	60	96	166	143
15 Mar 2017	72	1076	224	45	60	96	166	143
16 Mar 2017	97	1132	312	75	107	107	195	230
17 Mar 2017	97	1132	312	75	107	107	195	230
18 Mar 2017	97	1076	312	75	107	107	195	230
19 Mar 2017	97	906	312	75	107	107	195	230
20 Mar 2017	97	906	312	75	107	107	195	230
21 Mar 2017	51	1093	192	45	60	65	150	143
22 Mar 2017	51	1093	192	45	60	65	150	143
23 Mar 2017	52	795	229	42	46	76	172	151
24 Mar 2017	52	676	229	42	46	76	172	151
25 Mar 2017	52	682	229	42	46	76	172	151
26 Mar 2017	52	682	229	42	46	76	172	151
27 Mar 2017	52	580	229	42	46	76	172	151
28 Mar 2017	39	512	206	35	34	69	148	126
29 Mar 2017	39	401	206	35	34	69	148	126
30 Mar 2017	16	302	124	13	11	35	91	76
31 Mar 2017	16	302	124	13	11	35	91	76

* Geometric mean calculated using n<5

Table 2.4

Summary of compliance at the SBOO shore stations with the Ocean Plan's Single Sample Maximum standard for total coliform bacteria, which states that total coliform density shall not exceed 10,000 CFU/100 mL.

Date	S4	S5	S6	S8	S9	S10	S11	S12
02 Mar 2017	IC	IC	IC	IC	IC	IC	IC	IC
07 Mar 2017	IC	IC	IC	IC	IC	IC	IC	IC
14 Mar 2017	IC	IC	IC	IC	IC	IC	IC	IC
21 Mar 2017	IC	E	IC	IC	IC	IC	IC	IC
23 Mar 2017	ns	IC	ns	ns	ns	ns	ns	ns
28 Mar 2017	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 2.5

Summary of compliance at the SBOO shore stations with the Ocean Plan's Single Sample Maximum standard for fecal coliform bacteria, which states that fecal coliform density shall not exceed 400 CFU/100 mL.

Date	S4	S5	S6	S8	S9	S10	S11	S12
02 Mar 2017	ns	IC	IC	IC	IC	IC	IC	IC
07 Mar 2017	IC	IC	IC	IC	IC	IC	IC	IC
14 Mar 2017	IC	IC	IC	IC	IC	IC	IC	IC
21 Mar 2017	IC	E	IC	IC	IC	IC	IC	IC
23 Mar 2017	ns	IC	ns	ns	ns	ns	ns	ns
28 Mar 2017	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 2.6

Summary of compliance at the SBOO shore stations with the Ocean Plan's Single Sample Maximum standard for *Enterococcus* bacteria, which states that *Enterococcus* density shall not exceed 104 CFU/100 mL.

Date	S4	S5	S6	S8	S9	S10	S11	S12
02 Mar 2017	IC	E	E	E	IC	E	E	E
03 Mar 2017	ns	E	E	IC	ns	IC	IC	E
05 Mar 2017	ns	E	E	ns	ns	ns	ns	IC
07 Mar 2017	IC	E	E	IC	IC	E	E	E
09 Mar 2017	ns	E	IC	ns	ns	IC	E	E
10 Mar 2017	ns	E	ns	ns	ns	ns	E	IC
12 Mar 2017	ns	IC	ns	ns	ns	ns	IC	ns
14 Mar 2017	IC	IC	IC	IC	IC	IC	IC	IC
21 Mar 2017	IC	E	IC	IC	IC	IC	IC	IC
23 Mar 2017	ns	E	ns	ns	ns	ns	ns	ns
24 Mar 2017	ns	IC	ns	ns	ns	ns	ns	ns
28 Mar 2017	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 2.7

Summary of compliance at the SBOO shore stations with the Ocean Plan's Single Sample Maximum standard for total coliform bacteria and the fecal/total coliform ratio (F:T), which states that total coliform density shall not exceed 1,000 CFU/100 mL when F:T > 0.1.

Date	S4	S5	S6	S8	S9	S10	S11	S12
02 Mar 2017	ns	IC	IC	IC	IC	IC	IC	IC
07 Mar 2017	IC	IC	IC	IC	IC	IC	IC	IC
14 Mar 2017	IC	IC	IC	IC	IC	IC	IC	IC
21 Mar 2017	IC	E	IC	IC	IC	IC	IC	IC
23 Mar 2017	ns	IC	ns	ns	ns	ns	ns	ns
28 Mar 2017	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 2.8

Summary of water quality parameters at the SBOO shore stations for each sample date. Densities of total coliform (Total), fecal coliform (Fecal), and *Enterococcus* (Enter) are reported as CFU/100 mL. The fecal:total coliform ratio (F:T) is unitless. Comments follow the data summary.

Station	Date	Time	Total	Fecal	Enter	F:T
S0	07 Mar 2017	1210	4600	98	400	0.02
S0	14 Mar 2017	1020	10e	6e	32e	0.60
S0	21 Mar 2017	1020	620	48	180e	0.08
S0	28 Mar 2017	1000	16000	620	1400e	0.04
S2	07 Mar 2017	1055	40e	<2	30e	0.05
S2	14 Mar 2017	1140	24e	<2	<2	0.08
S2	21 Mar 2017	1135	<2	<2	<2	1.00
S2	28 Mar 2017	1110	840	30e	34e	0.04
S3	07 Mar 2017	1005	120e	2e	66	0.02
S3	14 Mar 2017	1228	2e	<2	<2	1.00
S3	21 Mar 2017	1220	2e	<2	<2	1.00
S3	28 Mar 2017	1150	140e	16e	20e	0.11
S4	02 Mar 2017	1252	20e	ns	64	ns
S4	07 Mar 2017	1112	220e	10e	54	0.05
S4	14 Mar 2017	740	72	8e	16e	0.11
S4	21 Mar 2017	1248	2e	<2	2e	1.00
S4	28 Mar 2017	1113	200e	10e	10e	0.05
S5	02 Mar 2017	1105	500	80	140e	0.16
S5	03 Mar 2017	1055	ns	ns	420	ns
S5	05 Mar 2017	835	ns	ns	>12000	ns
S5	07 Mar 2017	911	360e	28e	180e	0.08
S5	09 Mar 2017	1025	ns	ns	400	ns
S5	10 Mar 2017	1312	ns	ns	1100	ns
S5	12 Mar 2017	1105	ns	ns	22e	ns
S5	14 Mar 2017	843	440	86	44	0.20
S5	21 Mar 2017	1020	>16000	>12000	11000	0.75
S5	23 Mar 2017	1045	40e	20e	140e	0.50
S5	24 Mar 2017	944	ns	ns	70	ns
S5	28 Mar 2017	915	200e	4e	100	0.02
S6	02 Mar 2017	1050	2800e	130e	400	0.05
S6	03 Mar 2017	1044	ns	ns	920	ns
S6	05 Mar 2017	850	ns	ns	110	ns
S6	07 Mar 2017	900	1200e	62	800	0.05
S6	09 Mar 2017	1018	ns	ns	78	ns
S6	14 Mar 2017	833	22e	6e	62	0.27
S6	21 Mar 2017	909	60e	6e	4e	0.10
S6	28 Mar 2017	900	<20	4e	88	0.20
S8	02 Mar 2017	1010	1800e	50	140e	0.03
S8	03 Mar 2017	1139	ns	ns	14e	ns
S8	07 Mar 2017	811	40e	4e	58	0.10
S8	14 Mar 2017	1245	<2	<2	<2	1.00
S8	21 Mar 2017	827	<20	<2	2e	0.10
S8	28 Mar 2017	818	40e	2e	12e	0.05

Station	Date	Time	Total	Fecal	Enteric	F:T
S9	02 Mar 2017	943	160e	6e	52	0.04
	07 Mar 2017	744	120e	2e	80	0.02
	14 Mar 2017	1228	<2	<2	<2	1.00
	21 Mar 2017	756	<20	2e	2e	0.10
	28 Mar 2017	757	4e	<2	8e	0.50
S10	02 Mar 2017	1245	5000	80e	120e	0.02
	03 Mar 2017	959	ns	ns	60e	ns
	07 Mar 2017	1106	1600e	100	260e	0.06
	09 Mar 2017	915	ns	ns	78	ns
	14 Mar 2017	737	220e	6e	6e	0.03
	21 Mar 2017	1217	<20	2e	<2	0.10
	28 Mar 2017	1122	<20	4e	36e	0.20
S11	02 Mar 2017	1055	7600	180e	760	0.02
	03 Mar 2017	1048	ns	ns	100e	ns
	07 Mar 2017	904	1600e	76	840e	0.05
	09 Mar 2017	1021	ns	ns	160e	ns
	10 Mar 2017	1305	ns	ns	110	ns
	12 Mar 2017	1052	ns	ns	20e	ns
	14 Mar 2017	838	260e	18e	34e	0.07
	21 Mar 2017	942	40e	6e	14e	0.15
	28 Mar 2017	906	<20	2e	40e	0.10
S12	02 Mar 2017	1033	10000	100e	1100	0.01
	03 Mar 2017	1035	ns	ns	460	ns
	05 Mar 2017	909	ns	ns	80e	ns
	07 Mar 2017	845	840	36e	540	0.04
	09 Mar 2017	1004	ns	ns	120e	ns
	10 Mar 2017	1256	ns	ns	10e	ns
	14 Mar 2017	821	80e	<2	66	0.02
	21 Mar 2017	854	20e	<2	<2	0.10
	28 Mar 2017	842	<20	<2	24e	0.10

ns = not sampled

ND = no data

Comments

Station	Date	Depth	Parameter	Comments
S10	02 Mar 2017			Resample
S11	02 Mar 2017			Resample
S12	02 Mar 2017			Resample
S4	02 Mar 2017			Resample
S5	02 Mar 2017			Resample
S6	02 Mar 2017			Resample
S8	02 Mar 2017			Resample
S9	02 Mar 2017			Resample
S10	03 Mar 2017			Resample
S11	03 Mar 2017			Resample
S12	03 Mar 2017			Resample
S5	03 Mar 2017			Resample
S6	03 Mar 2017			Resample
S8	03 Mar 2017			Resample
S12	05 Mar 2017			Resample
S5	05 Mar 2017			Resample
S6	05 Mar 2017			Resample
S10	09 Mar 2017			Resample
S11	09 Mar 2017			Resample
S12	09 Mar 2017			Resample
S5	09 Mar 2017			Resample
S6	09 Mar 2017			Resample
S11	10 Mar 2017			Resample
S12	10 Mar 2017			Resample
S5	10 Mar 2017			Resample
S11	12 Mar 2017			Resample
S5	12 Mar 2017			Resample
S5	23 Mar 2017			Resample
S5	24 Mar 2017			Resample

Table 2.9

Summary of visual observations made during the month for each SBOO shore station by sample date.

Station	Date	Parameter	Value
S0	07 Mar 2017	Arrive Time	1210
S0	07 Mar 2017	Weather	Sunny
S0	07 Mar 2017	Wind Speed (kts)	10.9
S0	07 Mar 2017	Wind Dir	NE
S0	07 Mar 2017	Animal Life	2 Dogs
S0	07 Mar 2017	Floatables	Yes
S0	07 Mar 2017	Water Color	Brown
S0	07 Mar 2017	Current Direction	S
S0	07 Mar 2017	Water Temp (C)	15
S0	07 Mar 2017	Wave Height Low (ft)	2
S0	07 Mar 2017	High Tide (ft)	3.7
S0	07 Mar 2017	High Tide Time	1838
S0	07 Mar 2017	Low Tide (ft)	-0.4
S0	07 Mar 2017	Low Tide Time	1207
S0	07 Mar 2017	Comments	Water turbid; Flow from storm drain approx 0.5L/sec; Red algae
S0	14 Mar 2017	Arrive Time	1020
S0	14 Mar 2017	Weather	Sunny
S0	14 Mar 2017	Wind Speed (kts)	0.4
S0	14 Mar 2017	Wind Dir	W
S0	14 Mar 2017	Animal Life	5 Shorebirds
S0	14 Mar 2017	Floatables	None
S0	14 Mar 2017	Water Color	Green
S0	14 Mar 2017	Current Direction	S
S0	14 Mar 2017	Water Temp (C)	16
S0	14 Mar 2017	Wave Height Low (ft)	2
S0	14 Mar 2017	High Tide (ft)	4.7
S0	14 Mar 2017	High Tide Time	1052
S0	14 Mar 2017	Low Tide (ft)	0.3
S0	14 Mar 2017	Low Tide Time	457
S0	14 Mar 2017	Comments	Kelp; Algae; Water clear
S0	21 Mar 2017	Arrive Time	1020
S0	21 Mar 2017	Weather	Sunny
S0	21 Mar 2017	Wind Speed (kts)	4
S0	21 Mar 2017	Wind Dir	SE
S0	21 Mar 2017	Animal Life	5 Shorebirds
S0	21 Mar 2017	Floatables	None
S0	21 Mar 2017	Water Color	Green
S0	21 Mar 2017	Current Direction	N
S0	21 Mar 2017	Water Temp (C)	15
S0	21 Mar 2017	Wave Height Low (ft)	2
S0	21 Mar 2017	High Tide (ft)	3.8
S0	21 Mar 2017	High Tide Time	427
S0	21 Mar 2017	Low Tide (ft)	0.7
S0	21 Mar 2017	Low Tide Time	1214
S0	21 Mar 2017	Comments	Kelp; Seagrass; Water clear
S0	28 Mar 2017	Arrive Time	1000
S0	28 Mar 2017	Weather	Sunny
S0	28 Mar 2017	Wind Speed (kts)	1.9

Station	Date	Parameter	Value
S0	28 Mar 2017	Wind Dir	SE
S0	28 Mar 2017	Animal Life	20 Shorebirds
S0	28 Mar 2017	Floatables	None
S0	28 Mar 2017	Water Color	Green
S0	28 Mar 2017	Current Direction	N
S0	28 Mar 2017	Water Temp (C)	16
S0	28 Mar 2017	Wave Height Low (ft)	4
S0	28 Mar 2017	High Tide (ft)	5.2
S0	28 Mar 2017	High Tide Time	1000
S0	28 Mar 2017	Low Tide (ft)	-0.2
S0	28 Mar 2017	Low Tide Time	359
S0	28 Mar 2017	Comments	Kelp; Algae; Water clear; Trash
S2	07 Mar 2017	Arrive Time	1055
S2	07 Mar 2017	Weather	Sunny
S2	07 Mar 2017	Wind Speed (kts)	4.3
S2	07 Mar 2017	Wind Dir	SW
S2	07 Mar 2017	Animal Life	None
S2	07 Mar 2017	Floatables	None
S2	07 Mar 2017	Water Color	Green
S2	07 Mar 2017	Current Direction	S
S2	07 Mar 2017	Water Temp (C)	16
S2	07 Mar 2017	Wave Height Low (ft)	2
S2	07 Mar 2017	High Tide (ft)	5
S2	07 Mar 2017	High Tide Time	442
S2	07 Mar 2017	Low Tide (ft)	-0.4
S2	07 Mar 2017	Low Tide Time	1207
S2	07 Mar 2017	Comments	Water turbid; No flow from storm drain
S2	14 Mar 2017	Arrive Time	1140
S2	14 Mar 2017	Weather	Sunny
S2	14 Mar 2017	Wind Speed (kts)	1.4
S2	14 Mar 2017	Wind Dir	SE
S2	14 Mar 2017	Animal Life	5 Shorebirds
S2	14 Mar 2017	Floatables	None
S2	14 Mar 2017	Water Color	Green
S2	14 Mar 2017	Current Direction	N
S2	14 Mar 2017	Water Temp (C)	16.5
S2	14 Mar 2017	Wave Height Low (ft)	2
S2	14 Mar 2017	High Tide (ft)	4.7
S2	14 Mar 2017	High Tide Time	1052
S2	14 Mar 2017	Low Tide (ft)	0.3
S2	14 Mar 2017	Low Tide Time	1707
S2	14 Mar 2017	Comments	Kelp; Algae; 3 Persons; Water clear
S2	21 Mar 2017	Arrive Time	1135
S2	21 Mar 2017	Weather	Sunny
S2	21 Mar 2017	Wind Speed (kts)	1.2
S2	21 Mar 2017	Wind Dir	SE
S2	21 Mar 2017	Animal Life	5 Shorebirds
S2	21 Mar 2017	Floatables	None
S2	21 Mar 2017	Water Color	Green
S2	21 Mar 2017	Current Direction	N
S2	21 Mar 2017	Water Temp (C)	15
S2	21 Mar 2017	Wave Height Low (ft)	3

Station	Date	Parameter	Value
S2	21 Mar 2017	High Tide (ft)	3.8
S2	21 Mar 2017	High Tide Time	427
S2	21 Mar 2017	Low Tide (ft)	0.7
S2	21 Mar 2017	Low Tide Time	1214
S2	21 Mar 2017	Comments	Kelp; Seagrass; 3 Persons; Water clear
S2	28 Mar 2017	Arrive Time	1110
S2	28 Mar 2017	Weather	Sunny
S2	28 Mar 2017	Wind Speed (kts)	1.4
S2	28 Mar 2017	Wind Dir	SE
S2	28 Mar 2017	Animal Life	20 Shorebirds; 5 Dolphins
S2	28 Mar 2017	Floatables	None
S2	28 Mar 2017	Water Color	Green
S2	28 Mar 2017	Current Direction	N
S2	28 Mar 2017	Water Temp (C)	16
S2	28 Mar 2017	Wave Height Low (ft)	3
S2	28 Mar 2017	High Tide (ft)	5.2
S2	28 Mar 2017	High Tide Time	1000
S2	28 Mar 2017	Low Tide (ft)	-0.3
S2	28 Mar 2017	Low Tide Time	1614
S2	28 Mar 2017	Comments	Kelp; Algae; Water clear; Trash
S3	07 Mar 2017	Arrive Time	1005
S3	07 Mar 2017	Weather	Sunny
S3	07 Mar 2017	Wind Speed (kts)	7.2
S3	07 Mar 2017	Wind Dir	SW
S3	07 Mar 2017	Animal Life	None
S3	07 Mar 2017	Floatables	Yes
S3	07 Mar 2017	Water Color	Green
S3	07 Mar 2017	Current Direction	S
S3	07 Mar 2017	Water Temp (C)	16
S3	07 Mar 2017	Wave Height Low (ft)	2
S3	07 Mar 2017	High Tide (ft)	5
S3	07 Mar 2017	High Tide Time	442
S3	07 Mar 2017	Low Tide (ft)	-0.4
S3	07 Mar 2017	Low Tide Time	1207
S3	07 Mar 2017	Comments	Water turbid; No flow from storm drain
S3	14 Mar 2017	Arrive Time	1228
S3	14 Mar 2017	Weather	Sunny
S3	14 Mar 2017	Wind Speed (kts)	0.3
S3	14 Mar 2017	Wind Dir	SE
S3	14 Mar 2017	Animal Life	5 Shorebirds; 5 Dolphins
S3	14 Mar 2017	Floatables	None
S3	14 Mar 2017	Water Color	Green
S3	14 Mar 2017	Current Direction	N
S3	14 Mar 2017	Water Temp (C)	16.5
S3	14 Mar 2017	Wave Height Low (ft)	2
S3	14 Mar 2017	High Tide (ft)	4.7
S3	14 Mar 2017	High Tide Time	1052
S3	14 Mar 2017	Low Tide (ft)	0.3
S3	14 Mar 2017	Low Tide Time	1707
S3	14 Mar 2017	Comments	Water clear
S3	21 Mar 2017	Arrive Time	1220

Station	Date	Parameter	Value
S3	21 Mar 2017	Weather	Sunny
S3	21 Mar 2017	Wind Speed (kts)	0.7
S3	21 Mar 2017	Wind Dir	SE
S3	21 Mar 2017	Animal Life	10 Shorebirds
S3	21 Mar 2017	Floatables	None
S3	21 Mar 2017	Water Color	Green
S3	21 Mar 2017	Current Direction	N
S3	21 Mar 2017	Water Temp (C)	15
S3	21 Mar 2017	Wave Height Low (ft)	2
S3	21 Mar 2017	High Tide (ft)	3.2
S3	21 Mar 2017	High Tide Time	1913
S3	21 Mar 2017	Low Tide (ft)	0.7
S3	21 Mar 2017	Low Tide Time	1214
S3	21 Mar 2017	Comments	6 Persons; Water clear
S3	28 Mar 2017	Arrive Time	1150
S3	28 Mar 2017	Weather	Sunny
S3	28 Mar 2017	Wind Speed (kts)	0.9
S3	28 Mar 2017	Wind Dir	SE
S3	28 Mar 2017	Animal Life	5 Shorebirds
S3	28 Mar 2017	Floatables	None
S3	28 Mar 2017	Water Color	Green
S3	28 Mar 2017	Current Direction	N
S3	28 Mar 2017	Water Temp (C)	15
S3	28 Mar 2017	Wave Height Low (ft)	4
S3	28 Mar 2017	High Tide (ft)	5.2
S3	28 Mar 2017	High Tide Time	1000
S3	28 Mar 2017	Low Tide (ft)	-0.3
S3	28 Mar 2017	Low Tide Time	1614
S3	28 Mar 2017	Comments	Kelp; Algae; Water clear; Trash
S4	02 Mar 2017	Arrive Time	1252
S4	02 Mar 2017	Weather	Sunny
S4	02 Mar 2017	Wind Speed (kts)	4.6
S4	02 Mar 2017	Wind Dir	N
S4	02 Mar 2017	Animal Life	None
S4	02 Mar 2017	Floatables	None
S4	02 Mar 2017	Water Color	Brown
S4	02 Mar 2017	Current Direction	N
S4	02 Mar 2017	Water Temp (C)	17.8
S4	02 Mar 2017	Wave Height Low (ft)	2
S4	02 Mar 2017	High Tide (ft)	4.1
S4	02 Mar 2017	High Tide Time	1126
S4	02 Mar 2017	Low Tide (ft)	0.7
S4	02 Mar 2017	Low Tide Time	1732
S4	02 Mar 2017	Comments	Water clear
S4	07 Mar 2017	Arrive Time	1112
S4	07 Mar 2017	Weather	Sunny
S4	07 Mar 2017	Wind Speed (kts)	6
S4	07 Mar 2017	Wind Dir	NW
S4	07 Mar 2017	Animal Life	None
S4	07 Mar 2017	Floatables	None
S4	07 Mar 2017	Water Color	Brown
S4	07 Mar 2017	Current Direction	N

Station	Date	Parameter	Value
S4	07 Mar 2017	Water Temp (C)	15.3
S4	07 Mar 2017	Wave Height Low (ft)	2
S4	07 Mar 2017	High Tide (ft)	5
S4	07 Mar 2017	High Tide Time	442
S4	07 Mar 2017	Low Tide (ft)	-0.4
S4	07 Mar 2017	Low Tide Time	1207
S4	07 Mar 2017	Comments	1 Jogger; Water clear
S4	14 Mar 2017	Arrive Time	740
S4	14 Mar 2017	Weather	Sunny
S4	14 Mar 2017	Wind Speed (kts)	1.2
S4	14 Mar 2017	Wind Dir	W
S4	14 Mar 2017	Animal Life	None
S4	14 Mar 2017	Floatables	None
S4	14 Mar 2017	Water Color	Green
S4	14 Mar 2017	Current Direction	N
S4	14 Mar 2017	Water Temp (C)	14.4
S4	14 Mar 2017	Wave Height Low (ft)	2
S4	14 Mar 2017	High Tide (ft)	4.7
S4	14 Mar 2017	High Tide Time	1052
S4	14 Mar 2017	Low Tide (ft)	0.3
S4	14 Mar 2017	Low Tide Time	457
S4	14 Mar 2017	Comments	Kelp; Water clear
S4	21 Mar 2017	Arrive Time	1248
S4	21 Mar 2017	Weather	Sunny
S4	21 Mar 2017	Wind Speed (kts)	3.1
S4	21 Mar 2017	Wind Dir	W
S4	21 Mar 2017	Animal Life	None
S4	21 Mar 2017	Floatables	None
S4	21 Mar 2017	Water Color	Green
S4	21 Mar 2017	Current Direction	N
S4	21 Mar 2017	Water Temp (C)	19.6
S4	21 Mar 2017	Wave Height Low (ft)	3
S4	21 Mar 2017	High Tide (ft)	3.2
S4	21 Mar 2017	High Tide Time	1913
S4	21 Mar 2017	Low Tide (ft)	0.7
S4	21 Mar 2017	Low Tide Time	1214
S4	21 Mar 2017	Comments	Kelp; Seagrass; Water clear
S4	28 Mar 2017	Arrive Time	1113
S4	28 Mar 2017	Weather	Sunny
S4	28 Mar 2017	Wind Speed (kts)	4.6
S4	28 Mar 2017	Wind Dir	W
S4	28 Mar 2017	Animal Life	None
S4	28 Mar 2017	Floatables	None
S4	28 Mar 2017	Water Color	Green
S4	28 Mar 2017	Current Direction	N
S4	28 Mar 2017	Water Temp (C)	15.4
S4	28 Mar 2017	Wave Height Low (ft)	3
S4	28 Mar 2017	High Tide (ft)	5.2
S4	28 Mar 2017	High Tide Time	1000
S4	28 Mar 2017	Low Tide (ft)	-0.3
S4	28 Mar 2017	Low Tide Time	1614
S4	28 Mar 2017	Comments	Kelp; Seagrass; Debris; Water clear

Station	Date	Parameter	Value
S5	02 Mar 2017	Arrive Time	1105
S5	02 Mar 2017	Weather	Sunny
S5	02 Mar 2017	Wind Speed (kts)	4.5
S5	02 Mar 2017	Wind Dir	NW
S5	02 Mar 2017	Animal Life	None
S5	02 Mar 2017	Floatables	None
S5	02 Mar 2017	Water Color	Green
S5	02 Mar 2017	Current Direction	N
S5	02 Mar 2017	Water Temp (C)	16.2
S5	02 Mar 2017	Wave Height Low (ft)	2
S5	02 Mar 2017	High Tide (ft)	4.1
S5	02 Mar 2017	High Tide Time	1126
S5	02 Mar 2017	Low Tide (ft)	0.5
S5	02 Mar 2017	Low Tide Time	532
S5	02 Mar 2017	Comments	Water clear
S5	03 Mar 2017	Arrive Time	1055
S5	03 Mar 2017	Weather	Sunny
S5	03 Mar 2017	Wind Speed (kts)	2.5
S5	03 Mar 2017	Wind Dir	W
S5	03 Mar 2017	Animal Life	None
S5	03 Mar 2017	Floatables	None
S5	03 Mar 2017	Water Color	Brown
S5	03 Mar 2017	Current Direction	N
S5	03 Mar 2017	Water Temp (C)	16.8
S5	03 Mar 2017	Wave Height Low (ft)	2
S5	03 Mar 2017	High Tide (ft)	3.4
S5	03 Mar 2017	High Tide Time	1234
S5	03 Mar 2017	Low Tide (ft)	0.6
S5	03 Mar 2017	Low Tide Time	639
S5	03 Mar 2017	Comments	Kelp; Seagrass; Debris; Water clear
S5	05 Mar 2017	Arrive Time	835
S5	05 Mar 2017	Weather	Cloudy
S5	05 Mar 2017	Wind Speed (kts)	6.8
S5	05 Mar 2017	Wind Dir	W
S5	05 Mar 2017	Animal Life	None
S5	05 Mar 2017	Floatables	None
S5	05 Mar 2017	Water Color	Brown
S5	05 Mar 2017	Current Direction	N
S5	05 Mar 2017	Water Temp (C)	14.6
S5	05 Mar 2017	Wave Height Low (ft)	1
S5	05 Mar 2017	High Tide (ft)	4.7
S5	05 Mar 2017	High Tide Time	202
S5	05 Mar 2017	Low Tide (ft)	0.4
S5	05 Mar 2017	Low Tide Time	943
S5	05 Mar 2017	Comments	Sewage-like odor; Water clear
S5	07 Mar 2017	Arrive Time	911
S5	07 Mar 2017	Weather	Sunny
S5	07 Mar 2017	Wind Speed (kts)	4.7
S5	07 Mar 2017	Wind Dir	NW
S5	07 Mar 2017	Animal Life	None
S5	07 Mar 2017	Floatables	None

Station	Date	Parameter	Value
S5	07 Mar 2017	Water Color	Brown
S5	07 Mar 2017	Current Direction	N
S5	07 Mar 2017	Water Temp (C)	15.8
S5	07 Mar 2017	Wave Height Low (ft)	2
S5	07 Mar 2017	High Tide (ft)	5
S5	07 Mar 2017	High Tide Time	442
S5	07 Mar 2017	Low Tide (ft)	-0.4
S5	07 Mar 2017	Low Tide Time	1207
S5	07 Mar 2017	Comments	Water clear
S5	09 Mar 2017	Arrive Time	1025
S5	09 Mar 2017	Weather	Sunny
S5	09 Mar 2017	Wind Speed (kts)	3.3
S5	09 Mar 2017	Wind Dir	W
S5	09 Mar 2017	Animal Life	None
S5	09 Mar 2017	Floatables	None
S5	09 Mar 2017	Water Color	Brown
S5	09 Mar 2017	Current Direction	N
S5	09 Mar 2017	Water Temp (C)	16.6
S5	09 Mar 2017	Wave Height Low (ft)	3
S5	09 Mar 2017	High Tide (ft)	5.5
S5	09 Mar 2017	High Tide Time	636
S5	09 Mar 2017	Low Tide (ft)	-0.9
S5	09 Mar 2017	Low Tide Time	1333
S5	09 Mar 2017	Comments	Kelp; Seagrass; Debris; Water clear
S5	10 Mar 2017	Arrive Time	1312
S5	10 Mar 2017	Weather	Sunny
S5	10 Mar 2017	Wind Speed (kts)	3.2
S5	10 Mar 2017	Wind Dir	N
S5	10 Mar 2017	Animal Life	None
S5	10 Mar 2017	Floatables	None
S5	10 Mar 2017	Water Color	Brown
S5	10 Mar 2017	Current Direction	N
S5	10 Mar 2017	Water Temp (C)	17
S5	10 Mar 2017	Wave Height Low (ft)	1
S5	10 Mar 2017	High Tide (ft)	5.7
S5	10 Mar 2017	High Tide Time	721
S5	10 Mar 2017	Low Tide (ft)	-0.9
S5	10 Mar 2017	Low Tide Time	1409
S5	10 Mar 2017	Comments	Water turbid
S5	12 Mar 2017	Arrive Time	1105
S5	12 Mar 2017	Weather	Cloudy
S5	12 Mar 2017	Wind Speed (kts)	4
S5	12 Mar 2017	Wind Dir	W
S5	12 Mar 2017	Animal Life	None
S5	12 Mar 2017	Floatables	None
S5	12 Mar 2017	Water Color	Green
S5	12 Mar 2017	Current Direction	N
S5	12 Mar 2017	Water Temp (C)	16.4
S5	12 Mar 2017	Wave Height Low (ft)	3
S5	12 Mar 2017	High Tide (ft)	5.4
S5	12 Mar 2017	High Tide Time	940
S5	12 Mar 2017	Low Tide (ft)	-0.5

Station	Date	Parameter	Value
S5	12 Mar 2017	Low Tide Time	1611
S5	12 Mar 2017	Comments	Kelp; Seagrass; Water clear
S5	14 Mar 2017	Arrive Time	843
S5	14 Mar 2017	Weather	Sunny
S5	14 Mar 2017	Wind Speed (kts)	1.1
S5	14 Mar 2017	Wind Dir	N
S5	14 Mar 2017	Animal Life	None
S5	14 Mar 2017	Floatables	None
S5	14 Mar 2017	Water Color	Green
S5	14 Mar 2017	Current Direction	N
S5	14 Mar 2017	Water Temp (C)	16
S5	14 Mar 2017	Wave Height Low (ft)	1
S5	14 Mar 2017	High Tide (ft)	4.7
S5	14 Mar 2017	High Tide Time	1052
S5	14 Mar 2017	Low Tide (ft)	0.3
S5	14 Mar 2017	Low Tide Time	457
S5	14 Mar 2017	Comments	Kelp; Seagrass; Water clear
S5	21 Mar 2017	Arrive Time	1020
S5	21 Mar 2017	Weather	Partly Cloudy
S5	21 Mar 2017	Wind Speed (kts)	3.3
S5	21 Mar 2017	Wind Dir	W
S5	21 Mar 2017	Animal Life	20 Shorebirds; 20 Birds; 6 Pelicans; 8 Sand Pipers; 4 Seagulls
S5	21 Mar 2017	Floatables	None
S5	21 Mar 2017	Water Color	Green
S5	21 Mar 2017	Current Direction	N
S5	21 Mar 2017	Water Temp (C)	19
S5	21 Mar 2017	Wave Height Low (ft)	2
S5	21 Mar 2017	High Tide (ft)	3.8
S5	21 Mar 2017	High Tide Time	427
S5	21 Mar 2017	Low Tide (ft)	0.7
S5	21 Mar 2017	Low Tide Time	1214
S5	21 Mar 2017	Comments	Kelp; Seagrass; Water clear
S5	23 Mar 2017	Arrive Time	1045
S5	23 Mar 2017	Weather	Sunny
S5	23 Mar 2017	Wind Speed (kts)	7.1
S5	23 Mar 2017	Wind Dir	W
S5	23 Mar 2017	Animal Life	None
S5	23 Mar 2017	Floatables	None
S5	23 Mar 2017	Water Color	Brown
S5	23 Mar 2017	Current Direction	N
S5	23 Mar 2017	Water Temp (C)	18.1
S5	23 Mar 2017	Wave Height Low (ft)	2
S5	23 Mar 2017	High Tide (ft)	4.5
S5	23 Mar 2017	High Tide Time	633
S5	23 Mar 2017	Low Tide (ft)	-0.1
S5	23 Mar 2017	Low Tide Time	1334
S5	23 Mar 2017	Comments	Water clear
S5	24 Mar 2017	Arrive Time	944
S5	24 Mar 2017	Weather	Sunny
S5	24 Mar 2017	Wind Speed (kts)	1.9
S5	24 Mar 2017	Wind Dir	W

Station	Date	Parameter	Value
S5	24 Mar 2017	Animal Life	None
S5	24 Mar 2017	Floatables	None
S5	24 Mar 2017	Water Color	Brown
S5	24 Mar 2017	Current Direction	N
S5	24 Mar 2017	Water Temp (C)	16.6
S5	24 Mar 2017	Wave Height Low (ft)	3
S5	24 Mar 2017	High Tide (ft)	4.9
S5	24 Mar 2017	High Tide Time	717
S5	24 Mar 2017	Low Tide (ft)	-0.3
S5	24 Mar 2017	Low Tide Time	1407
S5	24 Mar 2017	Comments	Kelp; Seagrass; 1 Person; Water clear; 1 Vehicle
S5	28 Mar 2017	Arrive Time	915
S5	28 Mar 2017	Weather	Sunny
S5	28 Mar 2017	Wind Speed (kts)	0
S5	28 Mar 2017	Wind Dir	
S5	28 Mar 2017	Animal Life	None
S5	28 Mar 2017	Floatables	None
S5	28 Mar 2017	Water Color	Green
S5	28 Mar 2017	Current Direction	S
S5	28 Mar 2017	Water Temp (C)	16.8
S5	28 Mar 2017	Wave Height Low (ft)	3
S5	28 Mar 2017	High Tide (ft)	5.2
S5	28 Mar 2017	High Tide Time	1000
S5	28 Mar 2017	Low Tide (ft)	-0.2
S5	28 Mar 2017	Low Tide Time	359
S5	28 Mar 2017	Comments	Kelp; Seagrass; Debris; 1 Person; Water clear
S6	02 Mar 2017	Arrive Time	1050
S6	02 Mar 2017	Weather	Sunny
S6	02 Mar 2017	Wind Speed (kts)	3.1
S6	02 Mar 2017	Wind Dir	NW
S6	02 Mar 2017	Animal Life	None
S6	02 Mar 2017	Floatables	None
S6	02 Mar 2017	Water Color	Brown
S6	02 Mar 2017	Current Direction	N
S6	02 Mar 2017	Water Temp (C)	17.2
S6	02 Mar 2017	Wave Height Low (ft)	2
S6	02 Mar 2017	High Tide (ft)	4.1
S6	02 Mar 2017	High Tide Time	1126
S6	02 Mar 2017	Low Tide (ft)	0.5
S6	02 Mar 2017	Low Tide Time	532
S6	02 Mar 2017	Comments	Water clear
S6	03 Mar 2017	Arrive Time	1044
S6	03 Mar 2017	Weather	Sunny
S6	03 Mar 2017	Wind Speed (kts)	1.7
S6	03 Mar 2017	Wind Dir	W
S6	03 Mar 2017	Animal Life	None
S6	03 Mar 2017	Floatables	None
S6	03 Mar 2017	Water Color	Brown
S6	03 Mar 2017	Current Direction	N
S6	03 Mar 2017	Water Temp (C)	17
S6	03 Mar 2017	Wave Height Low (ft)	3
S6	03 Mar 2017	High Tide (ft)	3.4

Station	Date	Parameter	Value
S6	03 Mar 2017	High Tide Time	1234
S6	03 Mar 2017	Low Tide (ft)	0.6
S6	03 Mar 2017	Low Tide Time	639
S6	03 Mar 2017	Comments	Kelp; Seagrass; Water clear
S6	05 Mar 2017	Arrive Time	850
S6	05 Mar 2017	Weather	Cloudy
S6	05 Mar 2017	Wind Speed (kts)	7.1
S6	05 Mar 2017	Wind Dir	W
S6	05 Mar 2017	Animal Life	None
S6	05 Mar 2017	Floatables	None
S6	05 Mar 2017	Water Color	Green
S6	05 Mar 2017	Current Direction	W
S6	05 Mar 2017	Water Temp (C)	14.2
S6	05 Mar 2017	Wave Height Low (ft)	1
S6	05 Mar 2017	High Tide (ft)	4.7
S6	05 Mar 2017	High Tide Time	202
S6	05 Mar 2017	Low Tide (ft)	0.4
S6	05 Mar 2017	Low Tide Time	943
S6	05 Mar 2017	Comments	Sewage-like odor; 1 Jogger; 2 Persons; Water clear
S6	07 Mar 2017	Arrive Time	900
S6	07 Mar 2017	Weather	Sunny
S6	07 Mar 2017	Wind Speed (kts)	3.4
S6	07 Mar 2017	Wind Dir	W
S6	07 Mar 2017	Animal Life	None
S6	07 Mar 2017	Floatables	None
S6	07 Mar 2017	Water Color	Brown
S6	07 Mar 2017	Current Direction	N
S6	07 Mar 2017	Water Temp (C)	14.4
S6	07 Mar 2017	Wave Height Low (ft)	2
S6	07 Mar 2017	High Tide (ft)	5
S6	07 Mar 2017	High Tide Time	442
S6	07 Mar 2017	Low Tide (ft)	-0.4
S6	07 Mar 2017	Low Tide Time	1207
S6	07 Mar 2017	Comments	1 Person; Water clear
S6	09 Mar 2017	Arrive Time	1018
S6	09 Mar 2017	Weather	Sunny
S6	09 Mar 2017	Wind Speed (kts)	2.9
S6	09 Mar 2017	Wind Dir	W
S6	09 Mar 2017	Animal Life	None
S6	09 Mar 2017	Floatables	None
S6	09 Mar 2017	Water Color	Brown
S6	09 Mar 2017	Current Direction	N
S6	09 Mar 2017	Water Temp (C)	15
S6	09 Mar 2017	Wave Height Low (ft)	3
S6	09 Mar 2017	High Tide (ft)	5.5
S6	09 Mar 2017	High Tide Time	636
S6	09 Mar 2017	Low Tide (ft)	-0.9
S6	09 Mar 2017	Low Tide Time	1333
S6	09 Mar 2017	Comments	Kelp; Seagrass; 3 Persons; Water clear
S6	14 Mar 2017	Arrive Time	833
S6	14 Mar 2017	Weather	Sunny

Station	Date	Parameter	Value
S6	14 Mar 2017	Wind Speed (kts)	2.5
S6	14 Mar 2017	Wind Dir	W
S6	14 Mar 2017	Animal Life	None
S6	14 Mar 2017	Floatables	None
S6	14 Mar 2017	Water Color	Green
S6	14 Mar 2017	Current Direction	N
S6	14 Mar 2017	Water Temp (C)	16.3
S6	14 Mar 2017	Wave Height Low (ft)	2
S6	14 Mar 2017	High Tide (ft)	4.7
S6	14 Mar 2017	High Tide Time	1052
S6	14 Mar 2017	Low Tide (ft)	0.3
S6	14 Mar 2017	Low Tide Time	457
S6	14 Mar 2017	Comments	Seagrass; Water clear
S6	21 Mar 2017	Arrive Time	909
S6	21 Mar 2017	Weather	Partly Cloudy
S6	21 Mar 2017	Wind Speed (kts)	3.4
S6	21 Mar 2017	Wind Dir	W
S6	21 Mar 2017	Animal Life	None
S6	21 Mar 2017	Floatables	None
S6	21 Mar 2017	Water Color	Green
S6	21 Mar 2017	Current Direction	N
S6	21 Mar 2017	Water Temp (C)	16.2
S6	21 Mar 2017	Wave Height Low (ft)	3
S6	21 Mar 2017	High Tide (ft)	3.8
S6	21 Mar 2017	High Tide Time	427
S6	21 Mar 2017	Low Tide (ft)	0.7
S6	21 Mar 2017	Low Tide Time	1214
S6	21 Mar 2017	Comments	Kelp; Seagrass; Water clear
S6	28 Mar 2017	Arrive Time	900
S6	28 Mar 2017	Weather	Sunny
S6	28 Mar 2017	Wind Speed (kts)	0.3
S6	28 Mar 2017	Wind Dir	NE
S6	28 Mar 2017	Animal Life	None
S6	28 Mar 2017	Floatables	None
S6	28 Mar 2017	Water Color	Green
S6	28 Mar 2017	Current Direction	S
S6	28 Mar 2017	Water Temp (C)	15
S6	28 Mar 2017	Wave Height Low (ft)	4
S6	28 Mar 2017	High Tide (ft)	5.2
S6	28 Mar 2017	High Tide Time	1000
S6	28 Mar 2017	Low Tide (ft)	-0.2
S6	28 Mar 2017	Low Tide Time	359
S6	28 Mar 2017	Comments	Kelp; Seagrass; Water clear
S8	02 Mar 2017	Arrive Time	1010
S8	02 Mar 2017	Weather	Sunny
S8	02 Mar 2017	Wind Speed (kts)	4.5
S8	02 Mar 2017	Wind Dir	N
S8	02 Mar 2017	Animal Life	None
S8	02 Mar 2017	Floatables	None
S8	02 Mar 2017	Water Color	Brown
S8	02 Mar 2017	Current Direction	N
S8	02 Mar 2017	Water Temp (C)	17.6

Station	Date	Parameter	Value
S8	02 Mar 2017	Wave Height Low (ft)	2
S8	02 Mar 2017	High Tide (ft)	4.1
S8	02 Mar 2017	High Tide Time	1126
S8	02 Mar 2017	Low Tide (ft)	0.5
S8	02 Mar 2017	Low Tide Time	532
S8	02 Mar 2017	Comments	Water clear
S8	03 Mar 2017	Arrive Time	1139
S8	03 Mar 2017	Weather	Sunny
S8	03 Mar 2017	Wind Speed (kts)	4.4
S8	03 Mar 2017	Wind Dir	W
S8	03 Mar 2017	Animal Life	35 Birds
S8	03 Mar 2017	Floatables	None
S8	03 Mar 2017	Water Color	Green
S8	03 Mar 2017	Current Direction	N
S8	03 Mar 2017	Water Temp (C)	16.8
S8	03 Mar 2017	Wave Height Low (ft)	2
S8	03 Mar 2017	High Tide (ft)	3.4
S8	03 Mar 2017	High Tide Time	1234
S8	03 Mar 2017	Low Tide (ft)	0.6
S8	03 Mar 2017	Low Tide Time	639
S8	03 Mar 2017	Comments	Kelp; Seagrass; Water clear
S8	07 Mar 2017	Arrive Time	811
S8	07 Mar 2017	Weather	Sunny
S8	07 Mar 2017	Wind Speed (kts)	1.7
S8	07 Mar 2017	Wind Dir	E
S8	07 Mar 2017	Animal Life	4 Birds
S8	07 Mar 2017	Floatables	None
S8	07 Mar 2017	Water Color	Green
S8	07 Mar 2017	Current Direction	N
S8	07 Mar 2017	Water Temp (C)	14.2
S8	07 Mar 2017	Wave Height Low (ft)	2
S8	07 Mar 2017	High Tide (ft)	5
S8	07 Mar 2017	High Tide Time	442
S8	07 Mar 2017	Low Tide (ft)	-0.4
S8	07 Mar 2017	Low Tide Time	1207
S8	07 Mar 2017	Comments	Water clear
S8	14 Mar 2017	Arrive Time	1245
S8	14 Mar 2017	Weather	Sunny
S8	14 Mar 2017	Wind Speed (kts)	1.7
S8	14 Mar 2017	Wind Dir	NW
S8	14 Mar 2017	Animal Life	None
S8	14 Mar 2017	Floatables	None
S8	14 Mar 2017	Water Color	Green
S8	14 Mar 2017	Current Direction	N
S8	14 Mar 2017	Water Temp (C)	18
S8	14 Mar 2017	Wave Height Low (ft)	2
S8	14 Mar 2017	High Tide (ft)	4.7
S8	14 Mar 2017	High Tide Time	1052
S8	14 Mar 2017	Low Tide (ft)	0.3
S8	14 Mar 2017	Low Tide Time	1707
S8	14 Mar 2017	Comments	30 Persons; 2 Surfers; 21 Swimmers; 2 Fishermen; Water clear

Station	Date	Parameter	Value
S8	21 Mar 2017	Arrive Time	827
S8	21 Mar 2017	Weather	Partly Cloudy
S8	21 Mar 2017	Wind Speed (kts)	0.5
S8	21 Mar 2017	Wind Dir	W
S8	21 Mar 2017	Animal Life	None
S8	21 Mar 2017	Floatables	None
S8	21 Mar 2017	Water Color	Green
S8	21 Mar 2017	Current Direction	N
S8	21 Mar 2017	Water Temp (C)	15.6
S8	21 Mar 2017	Wave Height Low (ft)	2
S8	21 Mar 2017	High Tide (ft)	3.8
S8	21 Mar 2017	High Tide Time	427
S8	21 Mar 2017	Low Tide (ft)	0.7
S8	21 Mar 2017	Low Tide Time	1214
S8	21 Mar 2017	Comments	Kelp; Seagrass; 8 Persons; Water clear
S8	28 Mar 2017	Arrive Time	818
S8	28 Mar 2017	Weather	Sunny
S8	28 Mar 2017	Wind Speed (kts)	4
S8	28 Mar 2017	Wind Dir	E
S8	28 Mar 2017	Animal Life	None
S8	28 Mar 2017	Floatables	None
S8	28 Mar 2017	Water Color	Green
S8	28 Mar 2017	Current Direction	S
S8	28 Mar 2017	Water Temp (C)	14.4
S8	28 Mar 2017	Wave Height Low (ft)	3
S8	28 Mar 2017	High Tide (ft)	5.2
S8	28 Mar 2017	High Tide Time	1000
S8	28 Mar 2017	Low Tide (ft)	-0.2
S8	28 Mar 2017	Low Tide Time	359
S8	28 Mar 2017	Comments	Kelp; Seagrass; 5 Persons; Water clear
S9	02 Mar 2017	Arrive Time	943
S9	02 Mar 2017	Weather	Sunny
S9	02 Mar 2017	Wind Speed (kts)	0.1
S9	02 Mar 2017	Wind Dir	N
S9	02 Mar 2017	Animal Life	None
S9	02 Mar 2017	Floatables	None
S9	02 Mar 2017	Water Color	Green
S9	02 Mar 2017	Current Direction	N
S9	02 Mar 2017	Water Temp (C)	16.8
S9	02 Mar 2017	Wave Height Low (ft)	2
S9	02 Mar 2017	High Tide (ft)	4.1
S9	02 Mar 2017	High Tide Time	1126
S9	02 Mar 2017	Low Tide (ft)	0.5
S9	02 Mar 2017	Low Tide Time	532
S9	02 Mar 2017	Comments	1 Jogger; 5 Persons; Water clear
S9	07 Mar 2017	Arrive Time	744
S9	07 Mar 2017	Weather	Sunny
S9	07 Mar 2017	Wind Speed (kts)	1.2
S9	07 Mar 2017	Wind Dir	E
S9	07 Mar 2017	Animal Life	None
S9	07 Mar 2017	Floatables	None
S9	07 Mar 2017	Water Color	Green

Station	Date	Parameter	Value
S9	07 Mar 2017	Current Direction	N
S9	07 Mar 2017	Water Temp (C)	15.6
S9	07 Mar 2017	Wave Height Low (ft)	3
S9	07 Mar 2017	High Tide (ft)	5
S9	07 Mar 2017	High Tide Time	442
S9	07 Mar 2017	Low Tide (ft)	-0.4
S9	07 Mar 2017	Low Tide Time	1207
S9	07 Mar 2017	Comments	2 Persons; Water clear
S9	14 Mar 2017	Arrive Time	1228
S9	14 Mar 2017	Weather	Sunny
S9	14 Mar 2017	Wind Speed (kts)	3.1
S9	14 Mar 2017	Wind Dir	NW
S9	14 Mar 2017	Animal Life	None
S9	14 Mar 2017	Floatables	None
S9	14 Mar 2017	Water Color	Green
S9	14 Mar 2017	Current Direction	N
S9	14 Mar 2017	Water Temp (C)	17
S9	14 Mar 2017	Wave Height Low (ft)	2
S9	14 Mar 2017	High Tide (ft)	4.7
S9	14 Mar 2017	High Tide Time	1052
S9	14 Mar 2017	Low Tide (ft)	0.3
S9	14 Mar 2017	Low Tide Time	1707
S9	14 Mar 2017	Comments	20 Persons; 10 Surfers; Water clear
S9	21 Mar 2017	Arrive Time	756
S9	21 Mar 2017	Weather	Partly Cloudy
S9	21 Mar 2017	Wind Speed (kts)	0.7
S9	21 Mar 2017	Wind Dir	W
S9	21 Mar 2017	Animal Life	None
S9	21 Mar 2017	Floatables	None
S9	21 Mar 2017	Water Color	Green
S9	21 Mar 2017	Current Direction	N
S9	21 Mar 2017	Water Temp (C)	15.4
S9	21 Mar 2017	Wave Height Low (ft)	3
S9	21 Mar 2017	High Tide (ft)	3.8
S9	21 Mar 2017	High Tide Time	427
S9	21 Mar 2017	Low Tide (ft)	0.7
S9	21 Mar 2017	Low Tide Time	1214
S9	21 Mar 2017	Comments	Kelp; Seagrass; 2 Joggers; Water clear
S9	28 Mar 2017	Arrive Time	757
S9	28 Mar 2017	Weather	Sunny
S9	28 Mar 2017	Wind Speed (kts)	0
S9	28 Mar 2017	Wind Dir	
S9	28 Mar 2017	Animal Life	None
S9	28 Mar 2017	Floatables	None
S9	28 Mar 2017	Water Color	Green
S9	28 Mar 2017	Current Direction	S
S9	28 Mar 2017	Water Temp (C)	14.2
S9	28 Mar 2017	Wave Height Low (ft)	3
S9	28 Mar 2017	High Tide (ft)	5.2
S9	28 Mar 2017	High Tide Time	1000
S9	28 Mar 2017	Low Tide (ft)	-0.2
S9	28 Mar 2017	Low Tide Time	359

Station	Date	Parameter	Value
S9	28 Mar 2017	Comments	Kelp; Seagrass; 1 Person; Water clear
S10	02 Mar 2017	Arrive Time	1245
S10	02 Mar 2017	Weather	Sunny
S10	02 Mar 2017	Wind Speed (kts)	4.6
S10	02 Mar 2017	Wind Dir	N
S10	02 Mar 2017	Animal Life	None
S10	02 Mar 2017	Floatables	None
S10	02 Mar 2017	Water Color	Brown
S10	02 Mar 2017	Current Direction	N
S10	02 Mar 2017	Water Temp (C)	15.8
S10	02 Mar 2017	Wave Height Low (ft)	2
S10	02 Mar 2017	High Tide (ft)	4.1
S10	02 Mar 2017	High Tide Time	1126
S10	02 Mar 2017	Low Tide (ft)	0.7
S10	02 Mar 2017	Low Tide Time	1732
S10	02 Mar 2017	Comments	Water clear
S10	03 Mar 2017	Arrive Time	959
S10	03 Mar 2017	Weather	Sunny
S10	03 Mar 2017	Wind Speed (kts)	0.7
S10	03 Mar 2017	Wind Dir	W
S10	03 Mar 2017	Animal Life	None
S10	03 Mar 2017	Floatables	None
S10	03 Mar 2017	Water Color	Green
S10	03 Mar 2017	Current Direction	N
S10	03 Mar 2017	Water Temp (C)	16.2
S10	03 Mar 2017	Wave Height Low (ft)	3
S10	03 Mar 2017	High Tide (ft)	3.4
S10	03 Mar 2017	High Tide Time	1234
S10	03 Mar 2017	Low Tide (ft)	0.6
S10	03 Mar 2017	Low Tide Time	639
S10	03 Mar 2017	Comments	Kelp; Seagrass; Debris; 2 Persons; Water clear
S10	07 Mar 2017	Arrive Time	1106
S10	07 Mar 2017	Weather	Sunny
S10	07 Mar 2017	Wind Speed (kts)	6.4
S10	07 Mar 2017	Wind Dir	N
S10	07 Mar 2017	Animal Life	None
S10	07 Mar 2017	Floatables	None
S10	07 Mar 2017	Water Color	Brown
S10	07 Mar 2017	Current Direction	N
S10	07 Mar 2017	Water Temp (C)	14.4
S10	07 Mar 2017	Wave Height Low (ft)	2
S10	07 Mar 2017	High Tide (ft)	5
S10	07 Mar 2017	High Tide Time	442
S10	07 Mar 2017	Low Tide (ft)	-0.4
S10	07 Mar 2017	Low Tide Time	1207
S10	07 Mar 2017	Comments	Water clear
S10	09 Mar 2017	Arrive Time	915
S10	09 Mar 2017	Weather	Sunny
S10	09 Mar 2017	Wind Speed (kts)	4
S10	09 Mar 2017	Wind Dir	W
S10	09 Mar 2017	Animal Life	None

Station	Date	Parameter	Value
S10	09 Mar 2017	Floatables	None
S10	09 Mar 2017	Water Color	Brown
S10	09 Mar 2017	Current Direction	N
S10	09 Mar 2017	Water Temp (C)	14.4
S10	09 Mar 2017	Wave Height Low (ft)	3
S10	09 Mar 2017	High Tide (ft)	5.5
S10	09 Mar 2017	High Tide Time	636
S10	09 Mar 2017	Low Tide (ft)	-0.9
S10	09 Mar 2017	Low Tide Time	1333
S10	09 Mar 2017	Comments	Kelp; Seagrass; Debris; Water clear
S10	14 Mar 2017	Arrive Time	737
S10	14 Mar 2017	Weather	Sunny
S10	14 Mar 2017	Wind Speed (kts)	2
S10	14 Mar 2017	Wind Dir	W
S10	14 Mar 2017	Animal Life	None
S10	14 Mar 2017	Floatables	None
S10	14 Mar 2017	Water Color	Green
S10	14 Mar 2017	Current Direction	N
S10	14 Mar 2017	Water Temp (C)	15
S10	14 Mar 2017	Wave Height Low (ft)	3
S10	14 Mar 2017	High Tide (ft)	4.7
S10	14 Mar 2017	High Tide Time	1052
S10	14 Mar 2017	Low Tide (ft)	0.3
S10	14 Mar 2017	Low Tide Time	457
S10	14 Mar 2017	Comments	Kelp; Seagrass; Water clear
S10	21 Mar 2017	Arrive Time	1217
S10	21 Mar 2017	Weather	Sunny
S10	21 Mar 2017	Wind Speed (kts)	2.8
S10	21 Mar 2017	Wind Dir	W
S10	21 Mar 2017	Animal Life	None
S10	21 Mar 2017	Floatables	None
S10	21 Mar 2017	Water Color	Green
S10	21 Mar 2017	Current Direction	N
S10	21 Mar 2017	Water Temp (C)	19
S10	21 Mar 2017	Wave Height Low (ft)	3
S10	21 Mar 2017	High Tide (ft)	3.2
S10	21 Mar 2017	High Tide Time	1913
S10	21 Mar 2017	Low Tide (ft)	0.7
S10	21 Mar 2017	Low Tide Time	1214
S10	21 Mar 2017	Comments	Kelp; Seagrass; Water clear
S10	28 Mar 2017	Arrive Time	1122
S10	28 Mar 2017	Weather	Sunny
S10	28 Mar 2017	Wind Speed (kts)	2.1
S10	28 Mar 2017	Wind Dir	W
S10	28 Mar 2017	Animal Life	4 Horses
S10	28 Mar 2017	Floatables	None
S10	28 Mar 2017	Water Color	Green
S10	28 Mar 2017	Current Direction	N
S10	28 Mar 2017	Water Temp (C)	16.2
S10	28 Mar 2017	Wave Height Low (ft)	4
S10	28 Mar 2017	High Tide (ft)	5.2
S10	28 Mar 2017	High Tide Time	1000

Station	Date	Parameter	Value
S10	28 Mar 2017	Low Tide (ft)	-0.3
S10	28 Mar 2017	Low Tide Time	1614
S10	28 Mar 2017	Comments	Kelp; Seagrass; 4 Persons; Water clear
S11	02 Mar 2017	Arrive Time	1055
S11	02 Mar 2017	Weather	Sunny
S11	02 Mar 2017	Wind Speed (kts)	11.2
S11	02 Mar 2017	Wind Dir	W
S11	02 Mar 2017	Animal Life	2 Dogs
S11	02 Mar 2017	Floatables	None
S11	02 Mar 2017	Water Color	Brown
S11	02 Mar 2017	Current Direction	N
S11	02 Mar 2017	Water Temp (C)	16.5
S11	02 Mar 2017	Wave Height Low (ft)	3
S11	02 Mar 2017	High Tide (ft)	4.1
S11	02 Mar 2017	High Tide Time	1126
S11	02 Mar 2017	Low Tide (ft)	0.5
S11	02 Mar 2017	Low Tide Time	532
S11	02 Mar 2017	Comments	4 Persons; Water clear
S11	03 Mar 2017	Arrive Time	1048
S11	03 Mar 2017	Weather	Sunny
S11	03 Mar 2017	Wind Speed (kts)	3.8
S11	03 Mar 2017	Wind Dir	W
S11	03 Mar 2017	Animal Life	1 Dog
S11	03 Mar 2017	Floatables	None
S11	03 Mar 2017	Water Color	Brown
S11	03 Mar 2017	Current Direction	N
S11	03 Mar 2017	Water Temp (C)	16.4
S11	03 Mar 2017	Wave Height Low (ft)	4
S11	03 Mar 2017	High Tide (ft)	3.4
S11	03 Mar 2017	High Tide Time	1234
S11	03 Mar 2017	Low Tide (ft)	0.6
S11	03 Mar 2017	Low Tide Time	639
S11	03 Mar 2017	Comments	Kelp; Seagrass; Debris; 1 Person; Water clear
S11	07 Mar 2017	Arrive Time	904
S11	07 Mar 2017	Weather	Sunny
S11	07 Mar 2017	Wind Speed (kts)	3.4
S11	07 Mar 2017	Wind Dir	N
S11	07 Mar 2017	Animal Life	None
S11	07 Mar 2017	Floatables	None
S11	07 Mar 2017	Water Color	Brown
S11	07 Mar 2017	Current Direction	N
S11	07 Mar 2017	Water Temp (C)	14.6
S11	07 Mar 2017	Wave Height Low (ft)	2
S11	07 Mar 2017	High Tide (ft)	5
S11	07 Mar 2017	High Tide Time	442
S11	07 Mar 2017	Low Tide (ft)	-0.4
S11	07 Mar 2017	Low Tide Time	1207
S11	07 Mar 2017	Comments	Water clear
S11	09 Mar 2017	Arrive Time	1021
S11	09 Mar 2017	Weather	Sunny
S11	09 Mar 2017	Wind Speed (kts)	4.4

Station	Date	Parameter	Value
S11	09 Mar 2017	Wind Dir	W
S11	09 Mar 2017	Animal Life	None
S11	09 Mar 2017	Floatables	None
S11	09 Mar 2017	Water Color	Brown
S11	09 Mar 2017	Current Direction	N
S11	09 Mar 2017	Water Temp (C)	15.2
S11	09 Mar 2017	Wave Height Low (ft)	3
S11	09 Mar 2017	High Tide (ft)	5.5
S11	09 Mar 2017	High Tide Time	636
S11	09 Mar 2017	Low Tide (ft)	-0.9
S11	09 Mar 2017	Low Tide Time	1333
S11	09 Mar 2017	Comments	Kelp; Seagrass; 2 Persons; Water clear
S11	10 Mar 2017	Arrive Time	1305
S11	10 Mar 2017	Weather	Sunny
S11	10 Mar 2017	Wind Speed (kts)	1.7
S11	10 Mar 2017	Wind Dir	N
S11	10 Mar 2017	Animal Life	None
S11	10 Mar 2017	Floatables	None
S11	10 Mar 2017	Water Color	Brown
S11	10 Mar 2017	Current Direction	N
S11	10 Mar 2017	Water Temp (C)	16
S11	10 Mar 2017	Wave Height Low (ft)	1
S11	10 Mar 2017	High Tide (ft)	5.7
S11	10 Mar 2017	High Tide Time	721
S11	10 Mar 2017	Low Tide (ft)	-0.9
S11	10 Mar 2017	Low Tide Time	1409
S11	10 Mar 2017	Comments	Water clear
S11	12 Mar 2017	Arrive Time	1052
S11	12 Mar 2017	Weather	Hazy
S11	12 Mar 2017	Wind Speed (kts)	5
S11	12 Mar 2017	Wind Dir	W
S11	12 Mar 2017	Animal Life	None
S11	12 Mar 2017	Floatables	None
S11	12 Mar 2017	Water Color	Green
S11	12 Mar 2017	Current Direction	N
S11	12 Mar 2017	Water Temp (C)	16.6
S11	12 Mar 2017	Wave Height Low (ft)	4
S11	12 Mar 2017	High Tide (ft)	5.4
S11	12 Mar 2017	High Tide Time	940
S11	12 Mar 2017	Low Tide (ft)	-0.5
S11	12 Mar 2017	Low Tide Time	1611
S11	12 Mar 2017	Comments	Kelp; Seagrass; Water clear
S11	14 Mar 2017	Arrive Time	838
S11	14 Mar 2017	Weather	Sunny
S11	14 Mar 2017	Wind Speed (kts)	1.3
S11	14 Mar 2017	Wind Dir	NW
S11	14 Mar 2017	Animal Life	None
S11	14 Mar 2017	Floatables	None
S11	14 Mar 2017	Water Color	Green
S11	14 Mar 2017	Current Direction	N
S11	14 Mar 2017	Water Temp (C)	16
S11	14 Mar 2017	Wave Height Low (ft)	2

Station	Date	Parameter	Value
S11	14 Mar 2017	High Tide (ft)	4.7
S11	14 Mar 2017	High Tide Time	1052
S11	14 Mar 2017	Low Tide (ft)	0.3
S11	14 Mar 2017	Low Tide Time	457
S11	14 Mar 2017	Comments	Seagrass; Water clear
S11	21 Mar 2017	Arrive Time	942
S11	21 Mar 2017	Weather	Partly Cloudy
S11	21 Mar 2017	Wind Speed (kts)	3.3
S11	21 Mar 2017	Wind Dir	W
S11	21 Mar 2017	Animal Life	None
S11	21 Mar 2017	Floatables	None
S11	21 Mar 2017	Water Color	Green
S11	21 Mar 2017	Current Direction	N
S11	21 Mar 2017	Water Temp (C)	16.6
S11	21 Mar 2017	Wave Height Low (ft)	3
S11	21 Mar 2017	High Tide (ft)	3.8
S11	21 Mar 2017	High Tide Time	427
S11	21 Mar 2017	Low Tide (ft)	0.7
S11	21 Mar 2017	Low Tide Time	1214
S11	21 Mar 2017	Comments	Kelp; Seagrass; Water clear
S11	28 Mar 2017	Arrive Time	906
S11	28 Mar 2017	Weather	Sunny
S11	28 Mar 2017	Wind Speed (kts)	1.1
S11	28 Mar 2017	Wind Dir	NW
S11	28 Mar 2017	Animal Life	None
S11	28 Mar 2017	Floatables	None
S11	28 Mar 2017	Water Color	Green
S11	28 Mar 2017	Current Direction	S
S11	28 Mar 2017	Water Temp (C)	15.2
S11	28 Mar 2017	Wave Height Low (ft)	5
S11	28 Mar 2017	High Tide (ft)	5.2
S11	28 Mar 2017	High Tide Time	1000
S11	28 Mar 2017	Low Tide (ft)	-0.2
S11	28 Mar 2017	Low Tide Time	359
S11	28 Mar 2017	Comments	Kelp; Seagrass; 2 Persons; Water clear
S12	02 Mar 2017	Arrive Time	1033
S12	02 Mar 2017	Weather	Sunny
S12	02 Mar 2017	Wind Speed (kts)	3.3
S12	02 Mar 2017	Wind Dir	NW
S12	02 Mar 2017	Animal Life	None
S12	02 Mar 2017	Floatables	None
S12	02 Mar 2017	Water Color	Brown
S12	02 Mar 2017	Current Direction	N
S12	02 Mar 2017	Water Temp (C)	16.7
S12	02 Mar 2017	Wave Height Low (ft)	2
S12	02 Mar 2017	High Tide (ft)	4.1
S12	02 Mar 2017	High Tide Time	1126
S12	02 Mar 2017	Low Tide (ft)	0.5
S12	02 Mar 2017	Low Tide Time	532
S12	02 Mar 2017	Comments	2 Persons; Water clear
S12	03 Mar 2017	Arrive Time	1035

Station	Date	Parameter	Value
S12	03 Mar 2017	Weather	Sunny
S12	03 Mar 2017	Wind Speed (kts)	1.7
S12	03 Mar 2017	Wind Dir	W
S12	03 Mar 2017	Animal Life	40 Birds
S12	03 Mar 2017	Floatables	None
S12	03 Mar 2017	Water Color	Green
S12	03 Mar 2017	Current Direction	N
S12	03 Mar 2017	Water Temp (C)	16
S12	03 Mar 2017	Wave Height Low (ft)	2
S12	03 Mar 2017	High Tide (ft)	3.4
S12	03 Mar 2017	High Tide Time	1234
S12	03 Mar 2017	Low Tide (ft)	0.6
S12	03 Mar 2017	Low Tide Time	639
S12	03 Mar 2017	Comments	Kelp; Seagrass; 1 Person; Water clear
S12	05 Mar 2017	Arrive Time	909
S12	05 Mar 2017	Weather	Cloudy
S12	05 Mar 2017	Wind Speed (kts)	4.2
S12	05 Mar 2017	Wind Dir	SW
S12	05 Mar 2017	Animal Life	1 Dog
S12	05 Mar 2017	Floatables	None
S12	05 Mar 2017	Water Color	Green
S12	05 Mar 2017	Current Direction	N
S12	05 Mar 2017	Water Temp (C)	15.2
S12	05 Mar 2017	Wave Height Low (ft)	1
S12	05 Mar 2017	High Tide (ft)	4.7
S12	05 Mar 2017	High Tide Time	202
S12	05 Mar 2017	Low Tide (ft)	0.4
S12	05 Mar 2017	Low Tide Time	943
S12	05 Mar 2017	Comments	2 Persons; Water clear
S12	07 Mar 2017	Arrive Time	845
S12	07 Mar 2017	Weather	Sunny
S12	07 Mar 2017	Wind Speed (kts)	0.7
S12	07 Mar 2017	Wind Dir	N
S12	07 Mar 2017	Animal Life	None
S12	07 Mar 2017	Floatables	None
S12	07 Mar 2017	Water Color	Green
S12	07 Mar 2017	Current Direction	N
S12	07 Mar 2017	Water Temp (C)	13.6
S12	07 Mar 2017	Wave Height Low (ft)	2
S12	07 Mar 2017	High Tide (ft)	5
S12	07 Mar 2017	High Tide Time	442
S12	07 Mar 2017	Low Tide (ft)	-0.4
S12	07 Mar 2017	Low Tide Time	1207
S12	07 Mar 2017	Comments	1 Jogger; Water clear
S12	09 Mar 2017	Arrive Time	1004
S12	09 Mar 2017	Weather	Sunny
S12	09 Mar 2017	Wind Speed (kts)	1.9
S12	09 Mar 2017	Wind Dir	W
S12	09 Mar 2017	Animal Life	None
S12	09 Mar 2017	Floatables	None
S12	09 Mar 2017	Water Color	Brown
S12	09 Mar 2017	Current Direction	N

Station	Date	Parameter	Value
S12	09 Mar 2017	Water Temp (C)	16
S12	09 Mar 2017	Wave Height Low (ft)	3
S12	09 Mar 2017	High Tide (ft)	5.5
S12	09 Mar 2017	High Tide Time	636
S12	09 Mar 2017	Low Tide (ft)	-0.9
S12	09 Mar 2017	Low Tide Time	1333
S12	09 Mar 2017	Comments	Kelp; Seagrass; 2 Persons; Water clear
S12	10 Mar 2017	Arrive Time	1256
S12	10 Mar 2017	Weather	Sunny
S12	10 Mar 2017	Wind Speed (kts)	3.5
S12	10 Mar 2017	Wind Dir	W
S12	10 Mar 2017	Animal Life	None
S12	10 Mar 2017	Floatables	None
S12	10 Mar 2017	Water Color	Green
S12	10 Mar 2017	Current Direction	N
S12	10 Mar 2017	Water Temp (C)	15.8
S12	10 Mar 2017	Wave Height Low (ft)	1
S12	10 Mar 2017	High Tide (ft)	5.7
S12	10 Mar 2017	High Tide Time	721
S12	10 Mar 2017	Low Tide (ft)	-0.9
S12	10 Mar 2017	Low Tide Time	1409
S12	10 Mar 2017	Comments	1 Person; 1 Fisherman; Water clear
S12	14 Mar 2017	Arrive Time	821
S12	14 Mar 2017	Weather	Sunny
S12	14 Mar 2017	Wind Speed (kts)	1.3
S12	14 Mar 2017	Wind Dir	N
S12	14 Mar 2017	Animal Life	6 Birds
S12	14 Mar 2017	Floatables	None
S12	14 Mar 2017	Water Color	Green
S12	14 Mar 2017	Current Direction	N
S12	14 Mar 2017	Water Temp (C)	15.5
S12	14 Mar 2017	Wave Height Low (ft)	2
S12	14 Mar 2017	High Tide (ft)	4.7
S12	14 Mar 2017	High Tide Time	1052
S12	14 Mar 2017	Low Tide (ft)	0.3
S12	14 Mar 2017	Low Tide Time	457
S12	14 Mar 2017	Comments	Seagrass; Water clear
S12	21 Mar 2017	Arrive Time	854
S12	21 Mar 2017	Weather	Partly Cloudy
S12	21 Mar 2017	Wind Speed (kts)	1.1
S12	21 Mar 2017	Wind Dir	W
S12	21 Mar 2017	Animal Life	None
S12	21 Mar 2017	Floatables	None
S12	21 Mar 2017	Water Color	Green
S12	21 Mar 2017	Current Direction	N
S12	21 Mar 2017	Water Temp (C)	16
S12	21 Mar 2017	Wave Height Low (ft)	3
S12	21 Mar 2017	High Tide (ft)	3.8
S12	21 Mar 2017	High Tide Time	427
S12	21 Mar 2017	Low Tide (ft)	0.7
S12	21 Mar 2017	Low Tide Time	1214
S12	21 Mar 2017	Comments	Kelp; Seagrass; Water clear

Station	Date	Parameter	Value
S12	28 Mar 2017	Arrive Time	842
S12	28 Mar 2017	Weather	Sunny
S12	28 Mar 2017	Wind Speed (kts)	2.5
S12	28 Mar 2017	Wind Dir	E
S12	28 Mar 2017	Animal Life	None
S12	28 Mar 2017	Floatables	None
S12	28 Mar 2017	Water Color	Green
S12	28 Mar 2017	Current Direction	S
S12	28 Mar 2017	Water Temp (C)	14
S12	28 Mar 2017	Wave Height Low (ft)	3
S12	28 Mar 2017	High Tide (ft)	5.2
S12	28 Mar 2017	High Tide Time	1000
S12	28 Mar 2017	Low Tide (ft)	-0.2
S12	28 Mar 2017	Low Tide Time	359
S12	28 Mar 2017	Comments	Kelp; Seagrass; Water clear

Kelp Stations

Table 3.1

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for total coliform bacteria at the SBOO kelp stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >1,000 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 Mar 2017	62*	2754*	1891*	336*	47*	76*	1647*
02 Mar 2017	62*	2754*	1891*	336*	47*	76*	1647*
03 Mar 2017	118	2509	1782	279	79	67	1401
04 Mar 2017	118	2509	1782	279	79	67	1401
05 Mar 2017	118	2509	1782	279	79	67	1401
06 Mar 2017	115*	2066*	1468*	213*	47*	26*	990*
07 Mar 2017	115*	2066*	1468*	213*	47*	26*	990*
08 Mar 2017	115*	2066*	1468*	213*	47*	26*	990*
09 Mar 2017	101	1038	662	148	48	18	780
10 Mar 2017	165*	994*	795*	404*	48	32*	1032*
11 Mar 2017	165*	994*	795*	404*	99*	32*	1032*
12 Mar 2017	165*	994*	795*	404*	99*	32*	1032*
13 Mar 2017	165*	994*	795*	404*	99*	32*	1032*
14 Mar 2017	165*	994*	795*	404*	99*	32*	1032*
15 Mar 2017	165*	994*	795*	404*	99*	32*	1032*
16 Mar 2017	282*	433*	490*	248*	362*	17*	953*
17 Mar 2017	282*	433*	490*	248*	362*	17*	953*
18 Mar 2017	173*	121*	179*	132*	161*	14*	928*
19 Mar 2017	173*	121*	179*	132*	161*	14*	928*
20 Mar 2017	173*	121*	179*	132*	161*	14*	928*
21 Mar 2017	173*	121*	179*	132*	161*	14*	928*
22 Mar 2017	71	57	81	125	256	11	864
23 Mar 2017	71	57	81	125	256	11	864
24 Mar 2017	71	57	81	125	256	11	864
25 Mar 2017	71	57	81	125	256	11	864
26 Mar 2017	92	17	20	28	92	6	241
27 Mar 2017	92	17	20	28	92	6	241
28 Mar 2017	92	17	20	28	92	6	241
29 Mar 2017	92	17	20	28	92	6	241
30 Mar 2017	92	17	20	28	92	6	241
31 Mar 2017	92	17	20	28	92	6	241

* Geometric mean calculated using n<5

Table 3.2

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for fecal coliform bacteria at the SBOO kelp stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >200 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 Mar 2017	7*	173*	83*	23*	10*	12*	202*
02 Mar 2017	7*	173*	83*	23*	10*	12*	202*
03 Mar 2017	13	177	86	26	14	9	172
04 Mar 2017	13	177	86	26	14	9	172
05 Mar 2017	13	177	86	26	14	9	172
06 Mar 2017	12*	104*	73*	18*	12*	4*	133*
07 Mar 2017	12*	104*	73*	18*	12*	4*	133*
08 Mar 2017	12*	104*	73*	18*	12*	4*	133*
09 Mar 2017	11	68	43	15	11	3	99
10 Mar 2017	17*	51*	46*	25*	11	4*	92*
11 Mar 2017	17*	51*	46*	25*	16*	4*	92*
12 Mar 2017	17*	51*	46*	25*	16*	4*	92*
13 Mar 2017	17*	51*	46*	25*	16*	4*	92*
14 Mar 2017	17*	51*	46*	25*	16*	4*	92*
15 Mar 2017	17*	51*	46*	25*	16*	4*	92*
16 Mar 2017	25*	42*	42*	37*	33*	2*	98*
17 Mar 2017	25*	42*	42*	37*	33*	2*	98*
18 Mar 2017	13*	20*	22*	19*	16*	2*	74*
19 Mar 2017	13*	20*	22*	19*	16*	2*	74*
20 Mar 2017	13*	20*	22*	19*	16*	2*	74*
21 Mar 2017	13*	20*	22*	19*	16*	2*	74*
22 Mar 2017	9	12	14	18	21	2	59
23 Mar 2017	9	12	14	18	21	2	59
24 Mar 2017	9	12	14	18	21	2	59
25 Mar 2017	9	12	14	18	21	2	59
26 Mar 2017	12	7	6	8	10	2	21
27 Mar 2017	12	7	6	8	10	2	21
28 Mar 2017	12	7	6	8	10	2	21
29 Mar 2017	12	7	6	8	10	2	21
30 Mar 2017	12	7	6	8	10	2	21
31 Mar 2017	12	7	6	8	10	2	21

* Geometric mean calculated using n<5

Table 3.3

Summary of compliance with the Ocean Plan's 30-day Geometric Mean standard for *Enterococcus* at the SBOO kelp stations. Data are based on the geometric mean of the five most recent samples from each site over the previous 30 days unless otherwise noted (*). Values >35 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 Mar 2017	26*	260*	102*	40*	11*	29*	512*
02 Mar 2017	26*	260*	102*	40*	11*	29*	512*
03 Mar 2017	42	275	128	43	19	17	393
04 Mar 2017	42	275	128	43	19	17	393
05 Mar 2017	42	275	128	43	19	17	393
06 Mar 2017	46*	205*	106*	41*	17*	7*	233*
07 Mar 2017	46*	205*	106*	41*	17*	7*	233*
08 Mar 2017	46*	205*	106*	41*	17*	7*	233*
09 Mar 2017	48	178	81	41	23	6	183
10 Mar 2017	75*	179*	86*	88*	23	8*	192*
11 Mar 2017	75*	179*	86*	88*	39*	8*	192*
12 Mar 2017	75*	179*	86*	88*	39*	8*	192*
13 Mar 2017	75*	179*	86*	88*	39*	8*	192*
14 Mar 2017	75*	179*	86*	88*	39*	8*	192*
15 Mar 2017	75*	179*	86*	88*	39*	8*	192*
16 Mar 2017	86*	88*	75*	56*	104*	3*	108*
17 Mar 2017	86*	88*	75*	56*	104*	3*	108*
18 Mar 2017	36*	39*	40*	36*	80*	3*	66*
19 Mar 2017	36*	39*	40*	36*	80*	3*	66*
20 Mar 2017	36*	39*	40*	36*	80*	3*	66*
21 Mar 2017	36*	39*	40*	36*	80*	3*	66*
22 Mar 2017	20	21	22	28	60	3	54
23 Mar 2017	20	21	22	28	60	3	54
24 Mar 2017	20	21	22	28	60	3	54
25 Mar 2017	20	21	22	28	60	3	54
26 Mar 2017	19	15	12	15	49	2	38
27 Mar 2017	19	15	12	15	49	2	38
28 Mar 2017	19	15	12	15	49	2	38
29 Mar 2017	19	15	12	15	49	2	38
30 Mar 2017	19	15	12	15	49	2	38
31 Mar 2017	19	15	12	15	49	2	38

* Geometric mean calculated using n<5

Table 3.4

Summary of compliance at the SBOO kelp stations with the Ocean Plan's Single Sample Maximum standard for total coliform bacteria, which states that total coliform density shall not exceed 10,000 CFU/100 mL.

Date	I19	I24	I25	I26	I32	I39	I40
03 Mar 2017	IC						
09 Mar 2017	IC						
18 Mar 2017	IC						
22 Mar 2017	IC						
26 Mar 2017	IC						

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.5

Summary of compliance at the SBOO kelp stations with the Ocean Plan's Single Sample Maximum standard for fecal coliform bacteria, which states that fecal coliform density shall not exceed 400 CFU/100 mL.

Date	I19	I24	I25	I26	I32	I39	I40
03 Mar 2017	IC						
09 Mar 2017	IC						
18 Mar 2017	IC						
22 Mar 2017	IC						
26 Mar 2017	IC						

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.6

Summary of compliance at the SBOO kelp stations with the Ocean Plan's Single Sample Maximum standard for *Enterococcus* bacteria, which states that *Enterococcus* density shall not exceed 104 CFU/100 mL.

Date	I19	I24	I25	I26	I32	I39	I40
03 Mar 2017	E	E	E	IC	E	IC	E
09 Mar 2017	E	E	IC	E	E	IC	E
18 Mar 2017	IC						
22 Mar 2017	IC						
26 Mar 2017	IC						

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.7

Summary of compliance at the SBOO kelp stations with the Ocean Plan's Single Sample Maximum standard for total coliform bacteria and the fecal/total coliform ratio (F:T), which states that total coliform density shall not exceed 1,000 CFU/100 mL when F:T > 0.1.

Date	I19	I24	I25	I26	I32	I39	I40
03 Mar 2017	IC	E	E	IC	E	IC	IC
09 Mar 2017	IC						
18 Mar 2017	IC						
22 Mar 2017	IC						
26 Mar 2017	IC						

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.8

Summary of water quality parameters at the SBOO kelp stations for each sample date. Densities of total coliform (Total), fecal coliform (Fecal) and *Enterococcus* (Entero) bacteria are reported as CFU/100 mL; the fecal:total coliform ratio (F:T) is unitless; values for temperature (Temp, °C), transmissivity (XMS, %), dissolved oxygen (DO, mg/L), salinity (Sal, ppt) and pH were extracted from CTD profile data for depths closest to those at which the bacteriological samples were collected; oil and grease samples (OG) and suspended solids (SUSO) data are reported as mg/L. Duplicates are indicated by *. Comments follow the data summary.

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I19	03 Mar 2017	1121	2	1900e	150e	80e	0.08	14.3	28.88	7.3	33.16	8.0	ns	ns
I19	03 Mar 2017	1121	6	800	64	150e	0.08	14.1	64.97	6.7	33.21	8.0	ns	ns
I19	03 Mar 2017	1121	11	1900e	120e	540	0.06	13.9	21.83	6.5	33.24	8.0	ns	ns
I19	09 Mar 2017	1022	2	<2	2e	<2	1.00	14.7	45.49	7.1	33.18	8.0	ns	ns
I19	09 Mar 2017	1022	6	60e	8e	50	0.13	13.9	38.65	6.4	33.24	8.0	ns	ns
I19	09 Mar 2017	1022	11	120e	14e	120e	0.12	13.1	30.35	5.4	33.35	8.0	ns	ns
I19	18 Mar 2017	1106	2	58	<2	2e	0.03	15.0	61.81	7.7	33.29	8.1	ns	ns
I19	18 Mar 2017	1106	6	22e	2e	<2	0.09	14.8	65.60	7.4	33.32	8.1	ns	ns
I19	18 Mar 2017	1106	11	40	<2	4e	0.05	14.4	58.56	6.7	33.31	8.0	ns	ns
I19	22 Mar 2017	1056	2	<2	<2	<2	1.00	16.8	79.07	8.5	33.25	8.2	ns	ns
I19	22 Mar 2017	1056	6	<2	<2	<2	1.00	16.7	80.14	8.7	33.25	8.2	ns	ns
I19	22 Mar 2017	1056	11	2e	<2	<2	1.00	15.9	68.01	8.1	33.31	8.2	ns	ns
I19	26 Mar 2017	1017	2	180e	24e	12e	0.13	15.7	43.44	8.0	33.27	8.1	ns	ns
I19	26 Mar 2017	1017	6	1100	80e	22e	0.07	15.4	34.19	7.3	33.23	8.1	ns	ns
I19	26 Mar 2017	1017	11	1400	100e	52	0.07	14.7	18.52	6.6	33.23	8.0	ns	ns
I24	03 Mar 2017	1142	2	780	120	40e	0.15	15.4	18.88	7.2	32.85	8.0	ns	ns
I24	03 Mar 2017	1142	6	1800e	150e	840	0.08	14.2	20.21	6.3	33.08	8.0	ns	ns
I24	03 Mar 2017	1142	11	2600e	320e	140e	0.12	14.0	8.12	6.2	33.20	8.0	ns	ns
I24	09 Mar 2017	1043	2	28e	<2	2e	0.07	14.6	47.50	7.4	33.02	8.1	ns	ns
I24	09 Mar 2017	1043	6	10e	<2	<2	0.20	13.8	81.81	6.1	33.24	8.0	ns	ns
I24	09 Mar 2017	1043	11	160e	32e	300e	0.20	12.7	2.31	5.5	33.38	7.9	ns	ns
I24	18 Mar 2017	1122	2	<2	<2	<2	1.00	15.9	67.91	8.2	33.09	8.2	ns	ns
I24	18 Mar 2017	1122	6	<2	<2	<2	1.00	14.6	66.27	6.2	33.38	8.0	ns	ns
I24	18 Mar 2017	1122	11	4e	<2	6e	0.50	14.2	42.29	6.0	33.35	8.0	ns	ns
I24	22 Mar 2017	1120	2	<2	<2	<2	1.00	16.7	53.24	9.2	33.19	8.3	ns	ns
I24	22 Mar 2017	1120	6	4e	<2	2e	0.50	16.3	67.50	8.4	33.25	8.2	ns	ns
I24	22 Mar 2017	1120	11	2e	<2	<2	1.00	15.5	67.84	8.9	33.24	8.1	ns	ns
I24	26 Mar 2017	1038	2	<2	<2	<2	1.00	15.9	71.47	8.4	33.26	8.2	ns	ns
I24	26 Mar 2017	1038	6	<2	<2	2e	1.00	15.2	69.13	6.1	33.28	8.2	ns	ns
I24	26 Mar 2017	1038	11	2e	<2	6e	1.00	14.0	59.96	6.5	33.30	8.0	ns	ns
I25	03 Mar 2017	1152	2	620	52	150e	0.08	15.0	29.06	7.3	33.03	8.0	ns	ns
I25	03 Mar 2017	1152	6	2000e	60e	680	0.03	14.1	22.25	6.9	33.11	8.0	ns	ns
I25	03 Mar 2017	1152	9	1600e	180e	140e	0.11	13.9	33.76	6.4	33.22	8.0	ns	ns
I25	09 Mar 2017	1051	2	20e	<2	2e	0.10	14.8	52.77	7.5	32.98	8.1	ns	ns
I25	09 Mar 2017	1051	6	2e	2e	2e	1.00	13.8	79.57	5.8	33.25	8.0	ns	ns

Station	Date	Time	Depth	Total	Fecal	Enter	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I25	09 Mar 2017	1051	9	60e	12e	76	0.20	13.1	29.90	5.6	33.35	7.9	ns	ns
I25	18 Mar 2017	1132	2	<20	6e	<2	0.30	15.6	59.20	7.9	33.30	8.1	ns	ns
I25	18 Mar 2017	1132	6	<2	<2	10e	1.00	14.9	68.26	6.2	33.33	8.0	ns	ns
I25	18 Mar 2017	1132	9	4e	<2	6e	0.50	14.7	65.96	6.4	33.31	8.0	ns	ns
I25	22 Mar 2017	1130	2	<2	<2	<2	1.00	16.6	35.99	9.7	32.94	8.3	ns	ns
I25	22 Mar 2017	1130	6	2e	<2	<2	1.00	16.3	66.77	10.1	33.24	8.3	ns	ns
I25	22 Mar 2017	1130	9	6e	<2	2e	0.33	15.2	71.90	7.7	33.34	8.1	ns	ns
I25	26 Mar 2017	1045	2	<2	<2	<2	1.00	15.8	70.75	8.3	33.26	8.2	ns	ns
I25	26 Mar 2017	1045	6	4e	<2	2e	0.50	14.8	70.72	6.9	33.28	8.1	ns	ns
I25	26 Mar 2017	1045	9	<2	<2	2e	1.00	13.8	61.02	5.8	33.34	8.0	ns	ns
I26	03 Mar 2017	1201	2	2e	<2	<2	1.00	15.0	74.16	7.5	33.13	8.1	ns	ns
I26	03 Mar 2017	1201	6	140e	6e	96	0.04	14.2	60.87	7.0	33.12	8.1	ns	ns
I26	03 Mar 2017	1201	9	260e	120e	76	0.46	13.9	42.03	6.8	33.22	8.0	ns	ns
I26	09 Mar 2017	1101	2	<2	<2	<2	1.00	14.8	57.23	7.6	33.21	8.1	ns	ns
I26	09 Mar 2017	1101	6	<2	<2	2e	1.00	13.8	74.84	5.8	33.26	8.1	ns	ns
I26	09 Mar 2017	1101	9	100e	16e	130e	0.16	12.8	46.38	5.4	33.39	7.9	ns	ns
I26	18 Mar 2017	1150	2	<20	4e	4e	0.20	16.1	66.56	8.9	33.26	8.2	ns	ns
I26	18 Mar 2017	1150	6	<20	<2	10e	0.10	15.3	63.78	7.4	33.37	8.1	ns	ns
I26	18 Mar 2017	1150	9	<20	<2	14e	0.10	14.3	63.31	6.4	33.43	8.0	ns	ns
I26	22 Mar 2017	1142	2	62	6e	<2	0.10	16.6	64.03	10.1	33.17	8.3	ns	ns
I26	22 Mar 2017	1142	6	80e	8e	<2	0.10	16.1	67.65	6.5	33.22	8.2	ns	ns
I26	22 Mar 2017	1142	9	160e	34e	26e	0.21	14.6	52.62	6.8	33.29	8.0	ns	ns
I26	26 Mar 2017	1056	2	<2	<2	<2	1.00	15.9	71.11	7.5	33.26	8.2	ns	ns
I26	26 Mar 2017	1056	6	<2	<2	2e	1.00	14.7	68.72	6.2	33.28	8.1	ns	ns
I26	26 Mar 2017	1056	9	<2	<2	6e	1.00	13.7	53.10	5.2	33.33	8.0	ns	ns
I32	03 Mar 2017	1215	2	4e	<2	12e	0.50	14.7	68.34	7.2	33.13	8.1	ns	ns
I32	03 Mar 2017	1215	6	840	44	110	0.05	14.1	44.73	7.4	33.10	8.1	ns	ns
I32	03 Mar 2017	1215	9	1100	140e	520	0.13	14.1	35.91	6.5	33.11	8.0	ns	ns
I32	09 Mar 2017	1113	2	<2	<2	2e	1.00	15.1	54.82	7.9	33.20	8.1	ns	ns
I32	09 Mar 2017	1113	6	60e	10e	86	0.17	13.9	17.27	6.7	33.29	8.0	ns	ns
I32	09 Mar 2017	1113	9	100e	12e	140e	0.12	13.5	14.36	6.6	33.31	8.0	ns	ns
I32	18 Mar 2017	1201	2	<2	<2	2e	1.00	15.8	64.68	8.2	33.37	8.2	ns	ns
I32	18 Mar 2017	1201	6	<20	<2	24e	0.10	14.9	52.59	7.2	33.65	8.1	ns	ns
I32	18 Mar 2017	1201	9	<20	<2	84	0.10	14.1	47.84	6.2	33.48	8.0	ns	ns
I32	22 Mar 2017	1155	2	1800e	40e	10e	0.02	16.9	46.81	9.9	33.00	8.3	ns	ns
I32	22 Mar 2017	1155	6	3000e	100e	44	0.03	16.5	63.76	9.2	33.12	8.2	ns	ns
I32	22 Mar 2017	1155	9	160e	34e	2e	0.21	16.4	70.73	8.8	33.15	8.2	ns	ns
I32	26 Mar 2017	1108	2	2e	<2	2e	1.00	15.8	49.91	8.1	33.27	8.2	ns	ns
I32	26 Mar 2017	1108	6	<2	<2	4e	1.00	15.5	27.96	7.6	33.28	8.1	ns	ns
I32	26 Mar 2017	1108	9	<20	2e	74	0.10	14.5	10.16	5.1	33.33	8.0	ns	ns
I39	03 Mar 2017	1101	2	28e	2e	<2	0.07	14.4	75.99	7.8	33.06	8.1	ns	ns

Station	Date	Time	Depth	Total	Fecal	Enteric	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I39	03 Mar 2017	1101	12	38e	2e	2e	0.05	13.4	88.82	6.1	33.32	8.0	ns	ns
I39	03 Mar 2017	1101	18	56	4e	2e	0.07	13.2	79.85	6.0	33.32	8.0	ns	ns
I39	09 Mar 2017	1003	2	10e	<2	<2	0.20	14.4	67.29	7.8	33.12	8.1	ns	ns
I39	09 Mar 2017	1003	12	<2	<2	<2	1.00	12.6	86.57	5.5	33.37	7.9	ns	ns
I39	09 Mar 2017	1003	18	2e	2e	4e	1.00	11.7	73.18	4.7	33.47	7.8	ns	ns
I39	18 Mar 2017	1045	2	<2	<2	<2	1.00	15.7	76.83	8.4	33.37	8.2	ns	ns
I39	18 Mar 2017	1045	12	2e	<2	4e	1.00	14.0	76.13	6.6	33.31	8.0	ns	ns
I39	18 Mar 2017	1045	18	<20	<2	4e	0.10	13.8	77.35	6.2	33.31	8.0	ns	ns
I39	22 Mar 2017	1027	2	<2	<2	<2	1.00	16.3	75.68	7.3	33.13	8.2	ns	ns
I39	22 Mar 2017	1027	12	6e	<2	2e	0.33	15.1	74.89	6.8	33.29	8.1	ns	ns
I39	22 Mar 2017	1027	18	2e	<2	2e	1.00	14.2	71.58	6.1	33.31	8.0	ns	ns
I39	26 Mar 2017	958	2	<2	<2	<2	1.00	15.4	69.92	7.8	33.25	8.1	ns	ns
I39	26 Mar 2017	958	12	<2	<2	<2	1.00	13.3	85.87	5.8	33.34	8.0	ns	ns
I39	26 Mar 2017	958	18	2e	<2	2e	1.00	12.6	67.37	4.6	33.38	7.9	ns	ns
I40	03 Mar 2017	1132	2	360e	92	82	0.26	14.5	41.82	6.9	33.03	8.0	ns	ns
I40	03 Mar 2017	1132	6	440	38e	68	0.09	14.2	53.60	7.1	33.20	8.1	ns	ns
I40	03 Mar 2017	1132	9	1400	140e	260e	0.10	14.0	62.34	6.3	33.23	8.0	ns	ns
I40	09 Mar 2017	1033	2	740	80	44	0.11	14.6	42.81	7.9	33.04	8.1	ns	ns
I40	09 Mar 2017	1033	6	40e	6e	26e	0.15	13.8	39.06	6.3	33.24	8.0	ns	ns
I40	09 Mar 2017	1033	9	120e	8e	140e	0.07	13.6	15.13	6.0	33.30	8.0	ns	ns
I40	18 Mar 2017	1112	2	2400e	80e	26e	0.03	15.6	59.28	8.1	32.87	8.1	ns	ns
I40	18 Mar 2017	1112	6	120e	14e	6e	0.12	14.9	64.76	7.0	33.29	8.1	ns	ns
I40	18 Mar 2017	1112	9	46	<2	12e	0.04	14.5	59.73	6.5	33.32	8.0	ns	ns
I40	22 Mar 2017	1111	2	1800e	60e	70	0.03	16.9	65.56	8.4	32.89	8.2	ns	ns
I40	22 Mar 2017	1111	6	96	4e	<2	0.04	16.7	78.63	8.9	33.24	8.2	ns	ns
I40	22 Mar 2017	1111	9	60e	8e	2e	0.13	16.1	68.94	7.8	33.38	8.2	ns	ns
I40	26 Mar 2017	1029	2	<2	<2	<2	1.00	15.9	62.78	8.3	33.27	8.2	ns	ns
I40	26 Mar 2017	1029	6	<2	<2	4e	1.00	15.7	54.08	7.1	33.28	8.1	ns	ns
I40	26 Mar 2017	1029	9	16e	<2	60	0.12	14.8	23.99	5.2	33.30	8.0	ns	ns

ns = not sampled

ND = no data

Table 3.9

Summary of visual observations made during the month for each SBOO kelp station by sample date.

Station	Date	Parameter	Value
I19	03 Mar 2017	Depth (m)	11
I19	03 Mar 2017	Arrive Time	1121
I19	03 Mar 2017	Depart Time	1124
I19	03 Mar 2017	Air Temp (C)	17
I19	03 Mar 2017	Weather	Clear
I19	03 Mar 2017	Visibility (mi)	11
I19	03 Mar 2017	Wind Speed (kts)	8
I19	03 Mar 2017	Wind Dir	SE
I19	03 Mar 2017	Water Color	Green
I19	03 Mar 2017	Wave Ht Low (ft)	2
I19	03 Mar 2017	Wave Period (sec)	13
I19	03 Mar 2017	Sea State	Calm
I19	03 Mar 2017	High Tide (ft)	3.4
I19	03 Mar 2017	High Tide Time	1234
I19	03 Mar 2017	Low Tide (ft)	0.6
I19	03 Mar 2017	Low Tide Time	639
I19	03 Mar 2017	Comments	
I19	09 Mar 2017	Depth (m)	11
I19	09 Mar 2017	Arrive Time	1022
I19	09 Mar 2017	Depart Time	1026
I19	09 Mar 2017	Air Temp (C)	16
I19	09 Mar 2017	Weather	Clear
I19	09 Mar 2017	Visibility (mi)	12
I19	09 Mar 2017	Wind Speed (kts)	4
I19	09 Mar 2017	Wind Dir	W
I19	09 Mar 2017	Water Color	Brownish-Green
I19	09 Mar 2017	Wave Ht Low (ft)	3
I19	09 Mar 2017	Wave Period (sec)	13
I19	09 Mar 2017	Sea State	Wind ripples
I19	09 Mar 2017	High Tide (ft)	5.5
I19	09 Mar 2017	High Tide Time	636
I19	09 Mar 2017	Low Tide (ft)	-0.9
I19	09 Mar 2017	Low Tide Time	1333
I19	09 Mar 2017	Comments	Chalky water
I19	18 Mar 2017	Depth (m)	9
I19	18 Mar 2017	Arrive Time	1106
I19	18 Mar 2017	Depart Time	1111
I19	18 Mar 2017	Air Temp (C)	15
I19	18 Mar 2017	Weather	Fog
I19	18 Mar 2017	Visibility (mi)	< 1
I19	18 Mar 2017	Wind Speed (kts)	2
I19	18 Mar 2017	Wind Dir	SE
I19	18 Mar 2017	Water Color	Green
I19	18 Mar 2017	Wave Ht Low (ft)	3
I19	18 Mar 2017	Wave Period (sec)	9
I19	18 Mar 2017	Sea State	Calm
I19	18 Mar 2017	High Tide (ft)	2.7
I19	18 Mar 2017	High Tide Time	1409
I19	18 Mar 2017	Low Tide (ft)	1.1

Station	Date	Parameter	Value
I19	18 Mar 2017	Low Tide Time	805
I19	18 Mar 2017	Comments	
I19	22 Mar 2017	Depth (m)	11
I19	22 Mar 2017	Arrive Time	1056
I19	22 Mar 2017	Depart Time	1100
I19	22 Mar 2017	Air Temp (C)	16
I19	22 Mar 2017	Weather	Drizzle
I19	22 Mar 2017	Visibility (mi)	10
I19	22 Mar 2017	Wind Speed (kts)	8
I19	22 Mar 2017	Wind Dir	S
I19	22 Mar 2017	Water Color	Brownish-Green
I19	22 Mar 2017	Wave Ht Low (ft)	3
I19	22 Mar 2017	Wave Period (sec)	11
I19	22 Mar 2017	Sea State	Light chop
I19	22 Mar 2017	High Tide (ft)	4.1
I19	22 Mar 2017	High Tide Time	539
I19	22 Mar 2017	Low Tide (ft)	0.3
I19	22 Mar 2017	Low Tide Time	1259
I19	22 Mar 2017	Comments	
I19	26 Mar 2017	Depth (m)	10
I19	26 Mar 2017	Arrive Time	1017
I19	26 Mar 2017	Depart Time	1021
I19	26 Mar 2017	Air Temp (C)	15
I19	26 Mar 2017	Weather	Overcast
I19	26 Mar 2017	Visibility (mi)	10
I19	26 Mar 2017	Wind Speed (kts)	8
I19	26 Mar 2017	Wind Dir	NW
I19	26 Mar 2017	Water Color	Brownish-Green
I19	26 Mar 2017	Wave Ht Low (ft)	5
I19	26 Mar 2017	Wave Period (sec)	9
I19	26 Mar 2017	Sea State	Calm
I19	26 Mar 2017	High Tide (ft)	5.4
I19	26 Mar 2017	High Tide Time	837
I19	26 Mar 2017	Low Tide (ft)	-0.6
I19	26 Mar 2017	Low Tide Time	1509
I19	26 Mar 2017	Comments	Low transmissivity higher CDOM throughout watercolumn
I24	03 Mar 2017	Depth (m)	11
I24	03 Mar 2017	Arrive Time	1142
I24	03 Mar 2017	Depart Time	1146
I24	03 Mar 2017	Air Temp (C)	17
I24	03 Mar 2017	Weather	Clear
I24	03 Mar 2017	Visibility (mi)	11
I24	03 Mar 2017	Wind Speed (kts)	8
I24	03 Mar 2017	Wind Dir	NE
I24	03 Mar 2017	Water Color	Greenish-Brown
I24	03 Mar 2017	Wave Ht Low (ft)	2
I24	03 Mar 2017	Wave Period (sec)	13
I24	03 Mar 2017	Sea State	Calm
I24	03 Mar 2017	High Tide (ft)	3.4
I24	03 Mar 2017	High Tide Time	1234
I24	03 Mar 2017	Low Tide (ft)	0.6
I24	03 Mar 2017	Low Tide Time	639

Station	Date	Parameter	Value
I24	03 Mar 2017	Comments	
I24	09 Mar 2017	Depth (m)	10
I24	09 Mar 2017	Arrive Time	1043
I24	09 Mar 2017	Depart Time	1047
I24	09 Mar 2017	Air Temp (C)	16
I24	09 Mar 2017	Weather	Clear
I24	09 Mar 2017	Visibility (mi)	12
I24	09 Mar 2017	Wind Speed (kts)	2
I24	09 Mar 2017	Wind Dir	NW
I24	09 Mar 2017	Water Color	Brownish-Green
I24	09 Mar 2017	Wave Ht Low (ft)	3
I24	09 Mar 2017	Wave Period (sec)	13
I24	09 Mar 2017	Sea State	Wind ripples
I24	09 Mar 2017	High Tide (ft)	5.5
I24	09 Mar 2017	High Tide Time	636
I24	09 Mar 2017	Low Tide (ft)	-0.9
I24	09 Mar 2017	Low Tide Time	1333
I24	09 Mar 2017	Comments	Chalky water
I24	18 Mar 2017	Depth (m)	10
I24	18 Mar 2017	Arrive Time	1122
I24	18 Mar 2017	Depart Time	1128
I24	18 Mar 2017	Air Temp (C)	15
I24	18 Mar 2017	Weather	Fog
I24	18 Mar 2017	Visibility (mi)	< 1
I24	18 Mar 2017	Wind Speed (kts)	2
I24	18 Mar 2017	Wind Dir	W
I24	18 Mar 2017	Water Color	Green
I24	18 Mar 2017	Wave Ht Low (ft)	3
I24	18 Mar 2017	Wave Period (sec)	9
I24	18 Mar 2017	Sea State	Calm
I24	18 Mar 2017	High Tide (ft)	2.7
I24	18 Mar 2017	High Tide Time	1409
I24	18 Mar 2017	Low Tide (ft)	1.1
I24	18 Mar 2017	Low Tide Time	805
I24	18 Mar 2017	Comments	Freshwater lens
I24	22 Mar 2017	Depth (m)	9
I24	22 Mar 2017	Arrive Time	1120
I24	22 Mar 2017	Depart Time	1124
I24	22 Mar 2017	Air Temp (C)	16
I24	22 Mar 2017	Weather	Cloudy
I24	22 Mar 2017	Visibility (mi)	10
I24	22 Mar 2017	Wind Speed (kts)	12
I24	22 Mar 2017	Wind Dir	SE
I24	22 Mar 2017	Water Color	Brownish-Green
I24	22 Mar 2017	Wave Ht Low (ft)	3
I24	22 Mar 2017	Wave Period (sec)	11
I24	22 Mar 2017	Sea State	Light chop
I24	22 Mar 2017	High Tide (ft)	4.1
I24	22 Mar 2017	High Tide Time	539
I24	22 Mar 2017	Low Tide (ft)	0.3
I24	22 Mar 2017	Low Tide Time	1259
I24	22 Mar 2017	Comments	

Station	Date	Parameter	Value
I24	26 Mar 2017	Depth (m)	10
I24	26 Mar 2017	Arrive Time	1038
I24	26 Mar 2017	Depart Time	1041
I24	26 Mar 2017	Air Temp (C)	15
I24	26 Mar 2017	Weather	Overcast
I24	26 Mar 2017	Visibility (mi)	10
I24	26 Mar 2017	Wind Speed (kts)	5
I24	26 Mar 2017	Wind Dir	NW
I24	26 Mar 2017	Water Color	Green
I24	26 Mar 2017	Wave Ht Low (ft)	5
I24	26 Mar 2017	Wave Period (sec)	9
I24	26 Mar 2017	Sea State	Calm
I24	26 Mar 2017	High Tide (ft)	5.4
I24	26 Mar 2017	High Tide Time	837
I24	26 Mar 2017	Low Tide (ft)	-0.6
I24	26 Mar 2017	Low Tide Time	1509
I24	26 Mar 2017	Comments	
I25	03 Mar 2017	Depth (m)	9
I25	03 Mar 2017	Arrive Time	1152
I25	03 Mar 2017	Depart Time	1154
I25	03 Mar 2017	Air Temp (C)	17
I25	03 Mar 2017	Weather	Clear
I25	03 Mar 2017	Visibility (mi)	11
I25	03 Mar 2017	Wind Speed (kts)	7
I25	03 Mar 2017	Wind Dir	E
I25	03 Mar 2017	Water Color	Green
I25	03 Mar 2017	Wave Ht Low (ft)	2
I25	03 Mar 2017	Wave Period (sec)	13
I25	03 Mar 2017	Sea State	Calm
I25	03 Mar 2017	High Tide (ft)	3.4
I25	03 Mar 2017	High Tide Time	1234
I25	03 Mar 2017	Low Tide (ft)	0.6
I25	03 Mar 2017	Low Tide Time	639
I25	03 Mar 2017	Comments	
I25	09 Mar 2017	Depth (m)	9
I25	09 Mar 2017	Arrive Time	1051
I25	09 Mar 2017	Depart Time	1056
I25	09 Mar 2017	Air Temp (C)	16
I25	09 Mar 2017	Weather	Clear
I25	09 Mar 2017	Visibility (mi)	12
I25	09 Mar 2017	Wind Speed (kts)	1
I25	09 Mar 2017	Wind Dir	SE
I25	09 Mar 2017	Water Color	Brownish-Green
I25	09 Mar 2017	Wave Ht Low (ft)	3
I25	09 Mar 2017	Wave Period (sec)	13
I25	09 Mar 2017	Sea State	Wind ripples
I25	09 Mar 2017	High Tide (ft)	5.5
I25	09 Mar 2017	High Tide Time	636
I25	09 Mar 2017	Low Tide (ft)	-0.9
I25	09 Mar 2017	Low Tide Time	1333
I25	09 Mar 2017	Comments	

Station	Date	Parameter	Value
I25	18 Mar 2017	Depth (m)	10
I25	18 Mar 2017	Arrive Time	1132
I25	18 Mar 2017	Depart Time	1139
I25	18 Mar 2017	Air Temp (C)	14
I25	18 Mar 2017	Weather	Fog
I25	18 Mar 2017	Visibility (mi)	< 1
I25	18 Mar 2017	Wind Speed (kts)	12
I25	18 Mar 2017	Wind Dir	NE
I25	18 Mar 2017	Water Color	Green
I25	18 Mar 2017	Wave Ht Low (ft)	3
I25	18 Mar 2017	Wave Period (sec)	9
I25	18 Mar 2017	Sea State	Calm
I25	18 Mar 2017	High Tide (ft)	2.7
I25	18 Mar 2017	High Tide Time	1409
I25	18 Mar 2017	Low Tide (ft)	1.1
I25	18 Mar 2017	Low Tide Time	805
I25	18 Mar 2017	Comments	Freshwater lens
I25	22 Mar 2017	Depth (m)	9
I25	22 Mar 2017	Arrive Time	1130
I25	22 Mar 2017	Depart Time	1135
I25	22 Mar 2017	Air Temp (C)	16
I25	22 Mar 2017	Weather	Cloudy
I25	22 Mar 2017	Visibility (mi)	10
I25	22 Mar 2017	Wind Speed (kts)	14
I25	22 Mar 2017	Wind Dir	NE
I25	22 Mar 2017	Water Color	Brownish-Green
I25	22 Mar 2017	Wave Ht Low (ft)	3
I25	22 Mar 2017	Wave Period (sec)	11
I25	22 Mar 2017	Sea State	Light chop
I25	22 Mar 2017	High Tide (ft)	4.1
I25	22 Mar 2017	High Tide Time	539
I25	22 Mar 2017	Low Tide (ft)	0.3
I25	22 Mar 2017	Low Tide Time	1259
I25	22 Mar 2017	Comments	
I25	26 Mar 2017	Depth (m)	11
I25	26 Mar 2017	Arrive Time	1045
I25	26 Mar 2017	Depart Time	1048
I25	26 Mar 2017	Air Temp (C)	15
I25	26 Mar 2017	Weather	Overcast
I25	26 Mar 2017	Visibility (mi)	10
I25	26 Mar 2017	Wind Speed (kts)	4
I25	26 Mar 2017	Wind Dir	S
I25	26 Mar 2017	Water Color	Green
I25	26 Mar 2017	Wave Ht Low (ft)	5
I25	26 Mar 2017	Wave Period (sec)	9
I25	26 Mar 2017	Sea State	Calm
I25	26 Mar 2017	High Tide (ft)	5.4
I25	26 Mar 2017	High Tide Time	837
I25	26 Mar 2017	Low Tide (ft)	-0.6
I25	26 Mar 2017	Low Tide Time	1509
I25	26 Mar 2017	Comments	
I26	03 Mar 2017	Depth (m)	10

Station	Date	Parameter	Value
I26	03 Mar 2017	Arrive Time	1201
I26	03 Mar 2017	Depart Time	1207
I26	03 Mar 2017	Air Temp (C)	17
I26	03 Mar 2017	Weather	Clear
I26	03 Mar 2017	Visibility (mi)	11
I26	03 Mar 2017	Wind Speed (kts)	9
I26	03 Mar 2017	Wind Dir	S
I26	03 Mar 2017	Water Color	Bluish-Green
I26	03 Mar 2017	Wave Ht Low (ft)	2
I26	03 Mar 2017	Wave Period (sec)	13
I26	03 Mar 2017	Sea State	Calm
I26	03 Mar 2017	High Tide (ft)	3.4
I26	03 Mar 2017	High Tide Time	1234
I26	03 Mar 2017	Low Tide (ft)	0.6
I26	03 Mar 2017	Low Tide Time	639
I26	03 Mar 2017	Comments	Spike in salinity below surface happened in 2 casts
I26	09 Mar 2017	Depth (m)	9
I26	09 Mar 2017	Arrive Time	1101
I26	09 Mar 2017	Depart Time	1106
I26	09 Mar 2017	Air Temp (C)	17
I26	09 Mar 2017	Weather	Clear
I26	09 Mar 2017	Visibility (mi)	12
I26	09 Mar 2017	Wind Speed (kts)	2
I26	09 Mar 2017	Wind Dir	E
I26	09 Mar 2017	Water Color	Brownish-Green
I26	09 Mar 2017	Wave Ht Low (ft)	3
I26	09 Mar 2017	Wave Period (sec)	13
I26	09 Mar 2017	Sea State	Wind ripples
I26	09 Mar 2017	High Tide (ft)	5.5
I26	09 Mar 2017	High Tide Time	636
I26	09 Mar 2017	Low Tide (ft)	-0.9
I26	09 Mar 2017	Low Tide Time	1333
I26	09 Mar 2017	Comments	
I26	18 Mar 2017	Depth (m)	10
I26	18 Mar 2017	Arrive Time	1150
I26	18 Mar 2017	Depart Time	1152
I26	18 Mar 2017	Air Temp (C)	14
I26	18 Mar 2017	Weather	Fog
I26	18 Mar 2017	Visibility (mi)	< 1
I26	18 Mar 2017	Wind Speed (kts)	4
I26	18 Mar 2017	Wind Dir	E
I26	18 Mar 2017	Water Color	Green
I26	18 Mar 2017	Wave Ht Low (ft)	3
I26	18 Mar 2017	Wave Period (sec)	9
I26	18 Mar 2017	Sea State	Calm
I26	18 Mar 2017	High Tide (ft)	2.7
I26	18 Mar 2017	High Tide Time	1409
I26	18 Mar 2017	Low Tide (ft)	1.1
I26	18 Mar 2017	Low Tide Time	805
I26	18 Mar 2017	Comments	Freshwater lens
I26	22 Mar 2017	Depth (m)	9
I26	22 Mar 2017	Arrive Time	1142

Station	Date	Parameter	Value
I26	22 Mar 2017	Depart Time	1146
I26	22 Mar 2017	Air Temp (C)	16
I26	22 Mar 2017	Weather	Cloudy
I26	22 Mar 2017	Visibility (mi)	10
I26	22 Mar 2017	Wind Speed (kts)	15
I26	22 Mar 2017	Wind Dir	N
I26	22 Mar 2017	Water Color	Brownish-Green
I26	22 Mar 2017	Wave Ht Low (ft)	3
I26	22 Mar 2017	Wave Period (sec)	11
I26	22 Mar 2017	Sea State	Light chop
I26	22 Mar 2017	High Tide (ft)	4.1
I26	22 Mar 2017	High Tide Time	539
I26	22 Mar 2017	Low Tide (ft)	0.3
I26	22 Mar 2017	Low Tide Time	1259
I26	22 Mar 2017	Comments	
I26	26 Mar 2017	Depth (m)	9
I26	26 Mar 2017	Arrive Time	1056
I26	26 Mar 2017	Depart Time	1100
I26	26 Mar 2017	Air Temp (C)	16
I26	26 Mar 2017	Weather	Partly Cloudy
I26	26 Mar 2017	Visibility (mi)	10
I26	26 Mar 2017	Wind Speed (kts)	5
I26	26 Mar 2017	Wind Dir	NW
I26	26 Mar 2017	Water Color	Brown
I26	26 Mar 2017	Wave Ht Low (ft)	5
I26	26 Mar 2017	Wave Period (sec)	9
I26	26 Mar 2017	Sea State	Calm
I26	26 Mar 2017	High Tide (ft)	5.4
I26	26 Mar 2017	High Tide Time	837
I26	26 Mar 2017	Low Tide (ft)	-0.6
I26	26 Mar 2017	Low Tide Time	1509
I26	26 Mar 2017	Comments	
I32	03 Mar 2017	Depth (m)	9
I32	03 Mar 2017	Arrive Time	1215
I32	03 Mar 2017	Depart Time	1220
I32	03 Mar 2017	Air Temp (C)	17
I32	03 Mar 2017	Weather	Clear
I32	03 Mar 2017	Visibility (mi)	11
I32	03 Mar 2017	Wind Speed (kts)	6
I32	03 Mar 2017	Wind Dir	W
I32	03 Mar 2017	Water Color	Bluish-Green
I32	03 Mar 2017	Wave Ht Low (ft)	2
I32	03 Mar 2017	Wave Period (sec)	13
I32	03 Mar 2017	Sea State	Calm
I32	03 Mar 2017	High Tide (ft)	3.4
I32	03 Mar 2017	High Tide Time	1234
I32	03 Mar 2017	Low Tide (ft)	0.6
I32	03 Mar 2017	Low Tide Time	639
I32	03 Mar 2017	Comments	
I32	09 Mar 2017	Depth (m)	10
I32	09 Mar 2017	Arrive Time	1113
I32	09 Mar 2017	Depart Time	1119

Station	Date	Parameter	Value
I32	09 Mar 2017	Air Temp (C)	16
I32	09 Mar 2017	Weather	Clear
I32	09 Mar 2017	Visibility (mi)	12
I32	09 Mar 2017	Wind Speed (kts)	4
I32	09 Mar 2017	Wind Dir	W
I32	09 Mar 2017	Water Color	Brownish-Green
I32	09 Mar 2017	Wave Ht Low (ft)	3
I32	09 Mar 2017	Wave Period (sec)	13
I32	09 Mar 2017	Sea State	Wind ripples
I32	09 Mar 2017	High Tide (ft)	5.5
I32	09 Mar 2017	High Tide Time	636
I32	09 Mar 2017	Low Tide (ft)	-0.9
I32	09 Mar 2017	Low Tide Time	1333
I32	09 Mar 2017	Comments	
I32	18 Mar 2017	Depth (m)	9
I32	18 Mar 2017	Arrive Time	1201
I32	18 Mar 2017	Depart Time	1206
I32	18 Mar 2017	Air Temp (C)	14
I32	18 Mar 2017	Weather	Fog
I32	18 Mar 2017	Visibility (mi)	< 1
I32	18 Mar 2017	Wind Speed (kts)	4
I32	18 Mar 2017	Wind Dir	NE
I32	18 Mar 2017	Water Color	Green
I32	18 Mar 2017	Wave Ht Low (ft)	3
I32	18 Mar 2017	Wave Period (sec)	9
I32	18 Mar 2017	Sea State	Calm
I32	18 Mar 2017	High Tide (ft)	2.7
I32	18 Mar 2017	High Tide Time	1409
I32	18 Mar 2017	Low Tide (ft)	1.1
I32	18 Mar 2017	Low Tide Time	805
I32	18 Mar 2017	Comments	Boats; Freshwater lens
I32	22 Mar 2017	Depth (m)	10
I32	22 Mar 2017	Arrive Time	1155
I32	22 Mar 2017	Depart Time	1159
I32	22 Mar 2017	Air Temp (C)	16
I32	22 Mar 2017	Weather	Cloudy
I32	22 Mar 2017	Visibility (mi)	10
I32	22 Mar 2017	Wind Speed (kts)	12
I32	22 Mar 2017	Wind Dir	W
I32	22 Mar 2017	Water Color	Brownish-Green
I32	22 Mar 2017	Wave Ht Low (ft)	3
I32	22 Mar 2017	Wave Period (sec)	11
I32	22 Mar 2017	Sea State	Light chop
I32	22 Mar 2017	High Tide (ft)	4.1
I32	22 Mar 2017	High Tide Time	539
I32	22 Mar 2017	Low Tide (ft)	0.3
I32	22 Mar 2017	Low Tide Time	1259
I32	22 Mar 2017	Comments	none
I32	26 Mar 2017	Depth (m)	10
I32	26 Mar 2017	Arrive Time	1108
I32	26 Mar 2017	Depart Time	1111
I32	26 Mar 2017	Air Temp (C)	16

Station	Date	Parameter	Value
I32	26 Mar 2017	Weather	Partly Cloudy
I32	26 Mar 2017	Visibility (mi)	10
I32	26 Mar 2017	Wind Speed (kts)	6
I32	26 Mar 2017	Wind Dir	E
I32	26 Mar 2017	Water Color	Greenish-Brown
I32	26 Mar 2017	Wave Ht Low (ft)	5
I32	26 Mar 2017	Wave Period (sec)	9
I32	26 Mar 2017	Sea State	Calm
I32	26 Mar 2017	High Tide (ft)	5.4
I32	26 Mar 2017	High Tide Time	837
I32	26 Mar 2017	Low Tide (ft)	-0.6
I32	26 Mar 2017	Low Tide Time	1509
I32	26 Mar 2017	Comments	Kelp debris
I39	03 Mar 2017	Depth (m)	18
I39	03 Mar 2017	Arrive Time	1101
I39	03 Mar 2017	Depart Time	1104
I39	03 Mar 2017	Air Temp (C)	16
I39	03 Mar 2017	Weather	Clear
I39	03 Mar 2017	Visibility (mi)	11
I39	03 Mar 2017	Wind Speed (kts)	1
I39	03 Mar 2017	Wind Dir	NE
I39	03 Mar 2017	Water Color	Greenish-Brown
I39	03 Mar 2017	Wave Ht Low (ft)	2
I39	03 Mar 2017	Wave Period (sec)	13
I39	03 Mar 2017	Sea State	Calm
I39	03 Mar 2017	High Tide (ft)	3.4
I39	03 Mar 2017	High Tide Time	1234
I39	03 Mar 2017	Low Tide (ft)	0.6
I39	03 Mar 2017	Low Tide Time	639
I39	03 Mar 2017	Comments	
I39	09 Mar 2017	Depth (m)	19
I39	09 Mar 2017	Arrive Time	1003
I39	09 Mar 2017	Depart Time	1007
I39	09 Mar 2017	Air Temp (C)	16
I39	09 Mar 2017	Weather	Clear
I39	09 Mar 2017	Visibility (mi)	12
I39	09 Mar 2017	Wind Speed (kts)	3
I39	09 Mar 2017	Wind Dir	W
I39	09 Mar 2017	Water Color	Green
I39	09 Mar 2017	Wave Ht Low (ft)	3
I39	09 Mar 2017	Wave Period (sec)	13
I39	09 Mar 2017	Sea State	Wind ripples
I39	09 Mar 2017	High Tide (ft)	5.5
I39	09 Mar 2017	High Tide Time	636
I39	09 Mar 2017	Low Tide (ft)	-0.9
I39	09 Mar 2017	Low Tide Time	1333
I39	09 Mar 2017	Comments	
I39	18 Mar 2017	Depth (m)	19
I39	18 Mar 2017	Arrive Time	1045
I39	18 Mar 2017	Depart Time	1047
I39	18 Mar 2017	Air Temp (C)	14
I39	18 Mar 2017	Weather	Fog

Station	Date	Parameter	Value
I39	18 Mar 2017	Visibility (mi)	< 1
I39	18 Mar 2017	Wind Speed (kts)	2
I39	18 Mar 2017	Wind Dir	NE
I39	18 Mar 2017	Water Color	Green
I39	18 Mar 2017	Wave Ht Low (ft)	3
I39	18 Mar 2017	Wave Period (sec)	9
I39	18 Mar 2017	Sea State	Calm
I39	18 Mar 2017	High Tide (ft)	2.7
I39	18 Mar 2017	High Tide Time	1409
I39	18 Mar 2017	Low Tide (ft)	1.1
I39	18 Mar 2017	Low Tide Time	805
I39	18 Mar 2017	Comments	
I39	22 Mar 2017	Depth (m)	18
I39	22 Mar 2017	Arrive Time	1027
I39	22 Mar 2017	Depart Time	1037
I39	22 Mar 2017	Air Temp (C)	16
I39	22 Mar 2017	Weather	Drizzle
I39	22 Mar 2017	Visibility (mi)	10
I39	22 Mar 2017	Wind Speed (kts)	10
I39	22 Mar 2017	Wind Dir	N
I39	22 Mar 2017	Water Color	Brownish-Green
I39	22 Mar 2017	Wave Ht Low (ft)	3
I39	22 Mar 2017	Wave Period (sec)	11
I39	22 Mar 2017	Sea State	Light chop
I39	22 Mar 2017	High Tide (ft)	4.1
I39	22 Mar 2017	High Tide Time	539
I39	22 Mar 2017	Low Tide (ft)	0.3
I39	22 Mar 2017	Low Tide Time	1259
I39	22 Mar 2017	Comments	
I39	26 Mar 2017	Depth (m)	19
I39	26 Mar 2017	Arrive Time	958
I39	26 Mar 2017	Depart Time	1001
I39	26 Mar 2017	Air Temp (C)	15
I39	26 Mar 2017	Weather	Overcast
I39	26 Mar 2017	Visibility (mi)	9
I39	26 Mar 2017	Wind Speed (kts)	7
I39	26 Mar 2017	Wind Dir	NE
I39	26 Mar 2017	Water Color	Green
I39	26 Mar 2017	Wave Ht Low (ft)	5
I39	26 Mar 2017	Wave Period (sec)	9
I39	26 Mar 2017	Sea State	Calm
I39	26 Mar 2017	High Tide (ft)	5.4
I39	26 Mar 2017	High Tide Time	837
I39	26 Mar 2017	Low Tide (ft)	-0.6
I39	26 Mar 2017	Low Tide Time	1509
I39	26 Mar 2017	Comments	
I40	03 Mar 2017	Depth (m)	9
I40	03 Mar 2017	Arrive Time	1132
I40	03 Mar 2017	Depart Time	1136
I40	03 Mar 2017	Air Temp (C)	16
I40	03 Mar 2017	Weather	Clear
I40	03 Mar 2017	Visibility (mi)	11

Station	Date	Parameter	Value
I40	03 Mar 2017	Wind Speed (kts)	8
I40	03 Mar 2017	Wind Dir	SE
I40	03 Mar 2017	Water Color	Brownish-Green
I40	03 Mar 2017	Wave Ht Low (ft)	2
I40	03 Mar 2017	Wave Period (sec)	13
I40	03 Mar 2017	Sea State	Calm
I40	03 Mar 2017	High Tide (ft)	3.4
I40	03 Mar 2017	High Tide Time	1234
I40	03 Mar 2017	Low Tide (ft)	0.6
I40	03 Mar 2017	Low Tide Time	639
I40	03 Mar 2017	Comments	sewage like odor
I40	09 Mar 2017	Depth (m)	11
I40	09 Mar 2017	Arrive Time	1033
I40	09 Mar 2017	Depart Time	1038
I40	09 Mar 2017	Air Temp (C)	16
I40	09 Mar 2017	Weather	Clear
I40	09 Mar 2017	Visibility (mi)	12
I40	09 Mar 2017	Wind Speed (kts)	4
I40	09 Mar 2017	Wind Dir	NW
I40	09 Mar 2017	Water Color	Brownish-Green
I40	09 Mar 2017	Wave Ht Low (ft)	3
I40	09 Mar 2017	Wave Period (sec)	13
I40	09 Mar 2017	Sea State	Wind ripples
I40	09 Mar 2017	High Tide (ft)	5.5
I40	09 Mar 2017	High Tide Time	636
I40	09 Mar 2017	Low Tide (ft)	-0.9
I40	09 Mar 2017	Low Tide Time	1333
I40	09 Mar 2017	Comments	Chalky water
I40	18 Mar 2017	Depth (m)	10
I40	18 Mar 2017	Arrive Time	1112
I40	18 Mar 2017	Depart Time	1119
I40	18 Mar 2017	Air Temp (C)	14
I40	18 Mar 2017	Weather	Fog
I40	18 Mar 2017	Visibility (mi)	< 1
I40	18 Mar 2017	Wind Speed (kts)	15
I40	18 Mar 2017	Wind Dir	SE
I40	18 Mar 2017	Water Color	Green
I40	18 Mar 2017	Wave Ht Low (ft)	3
I40	18 Mar 2017	Wave Period (sec)	9
I40	18 Mar 2017	Sea State	Calm
I40	18 Mar 2017	High Tide (ft)	2.7
I40	18 Mar 2017	High Tide Time	1409
I40	18 Mar 2017	Low Tide (ft)	1.1
I40	18 Mar 2017	Low Tide Time	805
I40	18 Mar 2017	Comments	Seagrass
I40	22 Mar 2017	Depth (m)	10
I40	22 Mar 2017	Arrive Time	1111
I40	22 Mar 2017	Depart Time	1113
I40	22 Mar 2017	Air Temp (C)	16
I40	22 Mar 2017	Weather	Drizzle
I40	22 Mar 2017	Visibility (mi)	10
I40	22 Mar 2017	Wind Speed (kts)	8

Station	Date	Parameter	Value
I40	22 Mar 2017	Wind Dir	W
I40	22 Mar 2017	Water Color	Brownish-Green
I40	22 Mar 2017	Wave Ht Low (ft)	3
I40	22 Mar 2017	Wave Period (sec)	11
I40	22 Mar 2017	Sea State	Light chop
I40	22 Mar 2017	High Tide (ft)	4.1
I40	22 Mar 2017	High Tide Time	539
I40	22 Mar 2017	Low Tide (ft)	0.3
I40	22 Mar 2017	Low Tide Time	1259
I40	22 Mar 2017	Comments	sewage odor; Freshwater lens
I40	26 Mar 2017	Depth (m)	9
I40	26 Mar 2017	Arrive Time	1029
I40	26 Mar 2017	Depart Time	1032
I40	26 Mar 2017	Air Temp (C)	15
I40	26 Mar 2017	Weather	Overcast
I40	26 Mar 2017	Visibility (mi)	10
I40	26 Mar 2017	Wind Speed (kts)	6
I40	26 Mar 2017	Wind Dir	W
I40	26 Mar 2017	Water Color	Green
I40	26 Mar 2017	Wave Ht Low (ft)	5
I40	26 Mar 2017	Wave Period (sec)	9
I40	26 Mar 2017	Sea State	Calm
I40	26 Mar 2017	High Tide (ft)	5.4
I40	26 Mar 2017	High Tide Time	837
I40	26 Mar 2017	Low Tide (ft)	-0.6
I40	26 Mar 2017	Low Tide Time	1509
I40	26 Mar 2017	Comments	Kelp debris

Table 3.10

Summary of CTD profile data from the SBOO kelp stations for each sample date.

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma-t$)	Chlor ($\mu\text{g/L}$)
I19	03 Mar 2017	1	14.43	29.42	7.2	33.12	8.0	24.6	1.06
I19	03 Mar 2017	2	14.34	28.88	7.3	33.16	8.0	24.7	1.47
I19	03 Mar 2017	3	14.26	28.36	7.3	33.19	8.0	24.7	1.75
I19	03 Mar 2017	4	14.25	36.81	7.2	33.20	8.1	24.7	1.98
I19	03 Mar 2017	5	14.21	56.52	6.9	33.21	8.1	24.8	1.88
I19	03 Mar 2017	6	14.14	64.97	6.7	33.21	8.0	24.8	1.80
I19	03 Mar 2017	7	14.09	52.71	6.6	33.22	8.0	24.8	1.68
I19	03 Mar 2017	8	14.01	34.22	6.5	33.23	8.0	24.8	1.55
I19	03 Mar 2017	9	13.94	26.56	6.5	33.24	8.0	24.8	1.54
I19	03 Mar 2017	10	13.93	21.83	6.5	33.24	8.0	24.8	1.51
I19	09 Mar 2017	1	15.02	50.30	7.3	33.18	8.0	24.6	1.70
I19	09 Mar 2017	2	14.69	45.49	7.1	33.18	8.0	24.6	3.10
I19	09 Mar 2017	3	14.07	39.84	7.0	33.18	8.0	24.8	3.76
I19	09 Mar 2017	4	13.96	34.17	6.8	33.19	8.0	24.8	3.73
I19	09 Mar 2017	5	13.98	32.52	6.6	33.21	8.0	24.8	3.36
I19	09 Mar 2017	6	13.92	38.65	6.4	33.24	8.0	24.8	3.06
I19	09 Mar 2017	7	13.84	43.83	6.3	33.26	8.0	24.9	2.77
I19	09 Mar 2017	8	13.77	43.15	6.1	33.27	8.0	24.9	2.52
I19	09 Mar 2017	9	13.77	44.79	5.5	33.26	8.0	24.9	2.06
I19	09 Mar 2017	10	13.13	30.35	5.4	33.35	8.0	25.1	1.93
I19	18 Mar 2017	1	15.00	61.73	7.8	33.26	8.1	24.6	3.40
I19	18 Mar 2017	2	14.96	61.81	7.7	33.29	8.1	24.7	1.90
I19	18 Mar 2017	3	14.91	62.14	7.6	33.31	8.1	24.7	2.71
I19	18 Mar 2017	4	14.88	62.55	7.6	33.30	8.1	24.7	1.14
I19	18 Mar 2017	5	14.85	63.16	7.6	33.31	8.1	24.7	0.94
I19	18 Mar 2017	6	14.78	65.60	7.4	33.32	8.1	24.7	0.97
I19	18 Mar 2017	7	14.59	67.14	7.0	33.38	8.1	24.8	1.00
I19	18 Mar 2017	8	14.44	67.67	6.8	33.36	8.0	24.8	0.95
I19	18 Mar 2017	9	14.44	62.85	6.7	33.32	8.0	24.8	0.84
I19	18 Mar 2017	10	14.44	58.56	6.7	33.31	8.0	24.8	0.85
I19	22 Mar 2017	1	16.77	67.95	8.6	33.20	8.2	24.2	2.78
I19	22 Mar 2017	2	16.76	79.07	8.5	33.25	8.2	24.2	2.85
I19	22 Mar 2017	3	16.74	79.26	8.7	33.25	8.2	24.2	3.13
I19	22 Mar 2017	4	16.72	79.77	8.7	33.25	8.2	24.2	3.26
I19	22 Mar 2017	5	16.71	79.97	8.7	33.26	8.2	24.2	3.26
I19	22 Mar 2017	6	16.71	80.14	8.7	33.25	8.2	24.2	3.23
I19	22 Mar 2017	7	16.68	80.31	8.6	33.26	8.2	24.3	3.18
I19	22 Mar 2017	8	16.67	80.48	8.4	33.26	8.2	24.3	3.12
I19	22 Mar 2017	9	16.65	79.41	8.0	33.26	8.2	24.3	4.00
I19	22 Mar 2017	10	15.89	68.01	8.1	33.31	8.2	24.5	6.00
I19	26 Mar 2017	1	15.74	42.94	8.1	33.27	8.1	24.5	8.43
I19	26 Mar 2017	2	15.74	43.44	8.0	33.27	8.1	24.5	8.84
I19	26 Mar 2017	3	15.72	43.55	7.9	33.27	8.1	24.5	8.59
I19	26 Mar 2017	4	15.65	41.78	7.7	33.26	8.1	24.5	7.63
I19	26 Mar 2017	5	15.59	39.43	7.4	33.25	8.1	24.5	6.63
I19	26 Mar 2017	6	15.38	34.19	7.3	33.23	8.1	24.5	6.08
I19	26 Mar 2017	7	15.15	28.51	7.3	33.22	8.1	24.6	5.33

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I19	26 Mar 2017	8	15.08	24.33	7.2	33.21	8.1	24.6	4.37
I19	26 Mar 2017	9	14.90	21.87	6.9	33.22	8.1	24.6	4.04
I19	26 Mar 2017	10	14.73	18.52	6.6	33.23	8.0	24.7	3.54
I24	03 Mar 2017	1	15.64	18.74	7.3	32.83	8.0	24.2	1.38
I24	03 Mar 2017	2	15.40	18.88	7.2	32.85	8.0	24.2	1.70
I24	03 Mar 2017	3	14.45	19.24	7.2	33.01	8.0	24.6	1.67
I24	03 Mar 2017	4	14.37	22.63	7.1	33.07	8.0	24.6	1.64
I24	03 Mar 2017	5	14.32	23.36	6.8	33.07	8.0	24.6	1.53
I24	03 Mar 2017	6	14.25	20.21	6.3	33.08	8.0	24.7	1.43
I24	03 Mar 2017	7	14.21	18.43	6.1	33.10	8.0	24.7	1.33
I24	03 Mar 2017	8	14.10	11.05	6.2	33.15	8.0	24.7	1.33
I24	03 Mar 2017	9	14.00	8.41	6.1	33.20	8.0	24.8	1.39
I24	03 Mar 2017	10	13.98	11.61	6.1	33.20	8.0	24.8	1.50
I24	03 Mar 2017	11	13.96	8.12	6.2	33.20	8.0	24.8	1.48
I24	09 Mar 2017	1	14.81	44.48	7.8	32.98	8.1	24.5	1.79
I24	09 Mar 2017	2	14.65	47.50	7.4	33.02	8.1	24.5	2.32
I24	09 Mar 2017	3	14.04	70.47	7.2	33.20	8.1	24.8	2.83
I24	09 Mar 2017	4	13.97	80.45	7.0	33.20	8.1	24.8	3.14
I24	09 Mar 2017	5	13.86	80.74	6.8	33.23	8.1	24.8	2.99
I24	09 Mar 2017	6	13.83	81.81	6.1	33.24	8.0	24.9	2.55
I24	09 Mar 2017	7	13.73	77.46	5.2	33.25	8.0	24.9	2.08
I24	09 Mar 2017	8	13.42	48.50	4.4	33.30	8.0	25.0	1.82
I24	09 Mar 2017	9	12.77	13.63	4.7	33.40	7.9	25.2	1.81
I24	09 Mar 2017	10	12.72	2.31	5.5	33.38	7.9	25.2	1.93
I24	18 Mar 2017	1	15.97	67.86	8.3	33.02	8.2	24.2	2.37
I24	18 Mar 2017	2	15.93	67.91	8.2	33.09	8.2	24.3	2.18
I24	18 Mar 2017	3	15.71	67.89	7.9	33.24	8.2	24.5	0.55
I24	18 Mar 2017	4	14.99	65.65	6.9	33.52	8.1	24.8	1.86
I24	18 Mar 2017	5	14.76	64.71	6.2	33.44	8.0	24.8	2.36
I24	18 Mar 2017	6	14.65	66.27	6.2	33.38	8.0	24.8	2.39
I24	18 Mar 2017	7	14.47	67.71	6.2	33.40	8.0	24.8	2.08
I24	18 Mar 2017	8	14.32	67.27	6.1	33.38	8.0	24.9	1.96
I24	18 Mar 2017	9	14.20	62.45	6.1	33.36	8.0	24.9	1.72
I24	18 Mar 2017	10	14.16	48.82	6.0	33.35	8.0	24.9	1.71
I24	18 Mar 2017	11	14.17	42.29	6.0	33.35	8.0	24.9	1.59
I24	22 Mar 2017	1	16.74	35.14	9.8	33.19	8.3	24.2	14.79
I24	22 Mar 2017	2	16.74	53.24	9.2	33.19	8.3	24.2	15.85
I24	22 Mar 2017	3	16.73	58.49	8.2	33.20	8.3	24.2	13.35
I24	22 Mar 2017	4	16.56	59.87	8.1	33.25	8.2	24.3	10.36
I24	22 Mar 2017	5	16.43	64.97	8.4	33.26	8.2	24.3	8.39
I24	22 Mar 2017	6	16.34	67.50	8.4	33.25	8.2	24.3	6.43
I24	22 Mar 2017	7	16.22	69.26	8.1	33.25	8.2	24.4	4.78
I24	22 Mar 2017	8	15.46	70.50	7.8	33.30	8.2	24.6	4.09
I24	22 Mar 2017	9	15.15	71.45	8.4	33.27	8.1	24.6	3.90
I24	22 Mar 2017	10	15.51	67.84	8.9	33.24	8.1	24.5	4.15
I24	26 Mar 2017	1	15.86	71.47	8.5	33.26	8.2	24.4	3.61
I24	26 Mar 2017	2	15.86	71.47	8.4	33.26	8.2	24.4	4.55
I24	26 Mar 2017	3	15.85	71.48	8.2	33.26	8.2	24.4	6.39
I24	26 Mar 2017	4	15.76	71.37	7.8	33.27	8.2	24.5	7.60
I24	26 Mar 2017	5	15.50	70.47	7.1	33.28	8.2	24.5	6.89

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I24	26 Mar 2017	6	15.20	69.13	6.1	33.28	8.2	24.6	5.23
I24	26 Mar 2017	7	14.91	68.39	5.5	33.29	8.1	24.7	4.12
I24	26 Mar 2017	8	14.07	60.01	5.6	33.34	8.0	24.9	3.52
I24	26 Mar 2017	9	13.96	60.77	5.9	33.32	8.0	24.9	3.22
I24	26 Mar 2017	10	13.95	61.61	6.3	33.31	8.0	24.9	3.27
I24	26 Mar 2017	11	14.01	59.96	6.5	33.30	8.0	24.9	3.18
I25	03 Mar 2017	1	15.12	28.61	7.4	33.02	8.0	24.4	1.71
I25	03 Mar 2017	2	15.03	29.06	7.3	33.03	8.0	24.4	2.02
I25	03 Mar 2017	3	14.51	27.98	7.2	33.03	8.0	24.6	1.78
I25	03 Mar 2017	4	14.28	24.87	7.0	33.06	8.0	24.6	1.61
I25	03 Mar 2017	5	14.19	22.45	7.0	33.09	8.0	24.7	1.58
I25	03 Mar 2017	6	14.14	22.25	6.9	33.11	8.0	24.7	1.62
I25	03 Mar 2017	7	14.11	21.49	6.7	33.15	8.0	24.7	1.54
I25	03 Mar 2017	8	14.04	33.82	6.4	33.20	8.0	24.8	1.50
I25	03 Mar 2017	9	13.90	33.76	6.4	33.22	8.0	24.8	1.48
I25	09 Mar 2017	1	14.84	52.47	7.9	32.99	8.1	24.5	2.00
I25	09 Mar 2017	2	14.83	52.77	7.5	32.98	8.1	24.5	2.90
I25	09 Mar 2017	3	14.40	52.91	7.0	33.10	8.1	24.6	3.26
I25	09 Mar 2017	4	13.96	65.49	6.7	33.22	8.1	24.8	3.18
I25	09 Mar 2017	5	13.81	77.04	6.4	33.25	8.1	24.9	3.00
I25	09 Mar 2017	6	13.76	79.57	5.8	33.25	8.0	24.9	2.37
I25	09 Mar 2017	7	13.59	80.39	5.1	33.28	8.0	24.9	1.94
I25	09 Mar 2017	8	13.14	59.93	5.3	33.35	8.0	25.1	1.78
I25	09 Mar 2017	9	13.10	29.90	5.6	33.35	7.9	25.1	1.74
I25	18 Mar 2017	1	15.77	60.47	8.6	33.22	8.1	24.4	2.29
I25	18 Mar 2017	2	15.60	59.20	7.9	33.30	8.1	24.5	3.29
I25	18 Mar 2017	3	15.22	56.92	7.4	33.39	8.1	24.7	3.78
I25	18 Mar 2017	4	15.10	60.66	7.1	33.35	8.1	24.7	3.66
I25	18 Mar 2017	5	15.03	64.20	6.6	33.32	8.1	24.7	3.50
I25	18 Mar 2017	6	14.93	68.26	6.2	33.33	8.0	24.7	3.26
I25	18 Mar 2017	7	14.72	65.15	6.2	33.34	8.0	24.8	2.71
I25	18 Mar 2017	8	14.68	64.04	6.3	33.32	8.0	24.7	2.18
I25	18 Mar 2017	9	14.68	65.96	6.4	33.31	8.0	24.7	1.82
I25	22 Mar 2017	1	16.60	27.48	9.9	32.70	8.3	23.8	12.19
I25	22 Mar 2017	2	16.60	35.99	9.7	32.94	8.3	24.0	12.72
I25	22 Mar 2017	3	16.59	61.33	9.6	33.18	8.3	24.2	12.99
I25	22 Mar 2017	4	16.48	60.99	9.7	33.23	8.3	24.3	11.83
I25	22 Mar 2017	5	16.38	58.99	10.0	33.28	8.3	24.3	7.46
I25	22 Mar 2017	6	16.33	66.77	10.1	33.24	8.3	24.3	1.56
I25	22 Mar 2017	7	16.15	68.73	9.8	33.30	8.3	24.4	12.96
I25	22 Mar 2017	8	15.60	71.42	8.3	33.44	8.3	24.6	17.50
I25	22 Mar 2017	9	15.15	71.90	7.7	33.34	8.1	24.7	19.77
I25	26 Mar 2017	1	15.82	71.04	8.5	33.26	8.2	24.4	3.53
I25	26 Mar 2017	2	15.81	70.75	8.3	33.26	8.2	24.5	4.40
I25	26 Mar 2017	3	15.80	72.30	7.8	33.26	8.2	24.5	5.68
I25	26 Mar 2017	4	15.68	72.22	7.3	33.26	8.2	24.5	6.37
I25	26 Mar 2017	5	14.97	72.18	7.2	33.30	8.2	24.7	6.72
I25	26 Mar 2017	6	14.82	70.72	6.9	33.28	8.1	24.7	6.35
I25	26 Mar 2017	7	14.75	68.77	6.3	33.28	8.1	24.7	5.00
I25	26 Mar 2017	8	14.59	65.55	5.7	33.29	8.1	24.7	3.86

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I25	26 Mar 2017	9	13.78	61.02	5.8	33.34	8.0	24.9	3.28
I26	03 Mar 2017	1	15.12	74.12	7.5	33.13	8.1	24.5	0.64
I26	03 Mar 2017	2	14.99	74.16	7.5	33.13	8.1	24.5	0.68
I26	03 Mar 2017	3	14.43	73.21	7.5	33.14	8.1	24.7	0.80
I26	03 Mar 2017	4	14.32	71.84	7.4	33.12	8.1	24.7	0.94
I26	03 Mar 2017	5	14.27	68.51	7.2	33.12	8.1	24.7	1.25
I26	03 Mar 2017	6	14.22	60.87	7.0	33.12	8.1	24.7	1.67
I26	03 Mar 2017	7	14.18	55.03	6.8	33.12	8.0	24.7	1.68
I26	03 Mar 2017	8	14.10	43.19	6.7	33.16	8.0	24.7	1.50
I26	03 Mar 2017	9	13.93	42.03	6.8	33.22	8.0	24.8	1.59
I26	09 Mar 2017	1	14.83	55.55	7.7	33.21	8.1	24.6	1.92
I26	09 Mar 2017	2	14.83	57.23	7.6	33.21	8.1	24.6	3.07
I26	09 Mar 2017	3	14.32	58.39	7.2	33.22	8.1	24.7	3.61
I26	09 Mar 2017	4	14.11	59.51	6.9	33.22	8.1	24.8	3.73
I26	09 Mar 2017	5	13.99	66.44	6.5	33.24	8.1	24.8	3.35
I26	09 Mar 2017	6	13.83	74.84	5.8	33.26	8.1	24.9	2.68
I26	09 Mar 2017	7	13.58	75.58	5.1	33.29	8.0	25.0	2.24
I26	09 Mar 2017	8	13.04	66.81	5.0	33.36	8.0	25.1	1.86
I26	09 Mar 2017	9	12.77	46.38	5.4	33.39	7.9	25.2	1.92
I26	18 Mar 2017	1	16.10	67.36	9.0	33.25	8.2	24.4	1.59
I26	18 Mar 2017	2	16.07	66.56	8.9	33.26	8.2	24.4	2.53
I26	18 Mar 2017	3	16.00	66.40	8.7	33.28	8.2	24.4	2.71
I26	18 Mar 2017	4	15.78	65.21	8.4	33.34	8.2	24.5	2.78
I26	18 Mar 2017	5	15.60	64.27	8.0	33.34	8.2	24.6	2.93
I26	18 Mar 2017	6	15.27	63.78	7.4	33.37	8.1	24.7	3.39
I26	18 Mar 2017	7	14.88	66.32	7.0	33.40	8.1	24.8	3.87
I26	18 Mar 2017	8	14.49	71.52	6.6	33.45	8.1	24.9	4.28
I26	18 Mar 2017	9	14.33	63.31	6.4	33.43	8.0	24.9	4.39
I26	22 Mar 2017	1	16.58	38.61	10.0	32.89	8.3	24.0	4.15
I26	22 Mar 2017	2	16.58	64.03	10.1	33.17	8.3	24.2	5.86
I26	22 Mar 2017	3	16.54	67.26	9.8	33.19	8.3	24.2	7.40
I26	22 Mar 2017	4	16.45	67.49	8.8	33.19	8.3	24.3	7.84
I26	22 Mar 2017	5	16.17	67.38	7.8	33.21	8.3	24.3	7.53
I26	22 Mar 2017	6	16.06	67.65	6.5	33.22	8.2	24.4	5.56
I26	22 Mar 2017	7	15.60	66.15	5.6	33.23	8.2	24.5	3.80
I26	22 Mar 2017	8	14.59	54.67	6.1	33.31	8.0	24.8	3.67
I26	22 Mar 2017	9	14.57	52.62	6.8	33.29	8.0	24.7	3.86
I26	26 Mar 2017	1	15.92	70.60	8.3	33.26	8.2	24.4	3.75
I26	26 Mar 2017	2	15.90	71.11	7.5	33.26	8.2	24.4	5.95
I26	26 Mar 2017	3	15.17	71.23	7.0	33.30	8.2	24.6	7.17
I26	26 Mar 2017	4	14.73	70.23	7.1	33.29	8.1	24.7	7.35
I26	26 Mar 2017	5	14.68	68.63	6.9	33.28	8.1	24.7	6.99
I26	26 Mar 2017	6	14.66	68.72	6.2	33.28	8.1	24.7	6.02
I26	26 Mar 2017	7	14.47	67.89	5.5	33.29	8.1	24.8	4.99
I26	26 Mar 2017	8	14.31	62.54	5.2	33.29	8.0	24.8	3.49
I26	26 Mar 2017	9	13.72	53.10	5.2	33.33	8.0	25.0	2.75
I32	03 Mar 2017	1	15.10	68.49	7.3	33.12	8.1	24.5	0.82
I32	03 Mar 2017	2	14.74	68.34	7.2	33.13	8.1	24.6	1.37
I32	03 Mar 2017	3	14.31	63.58	7.6	33.13	8.0	24.7	1.90

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I32	03 Mar 2017	4	14.20	49.64	7.7	33.11	8.0	24.7	1.98
I32	03 Mar 2017	5	14.15	43.28	7.5	33.10	8.1	24.7	1.99
I32	03 Mar 2017	6	14.14	44.73	7.4	33.10	8.1	24.7	1.94
I32	03 Mar 2017	7	14.12	45.76	7.1	33.10	8.0	24.7	1.99
I32	03 Mar 2017	8	14.11	42.49	6.7	33.10	8.0	24.7	1.98
I32	03 Mar 2017	9	14.14	35.91	6.5	33.11	8.0	24.7	2.02
I32	03 Mar 2017	10	14.15	25.05	6.6	33.12	8.0	24.7	1.98
I32	09 Mar 2017	1	15.31	55.51	8.0	33.19	8.1	24.5	2.14
I32	09 Mar 2017	2	15.08	54.82	7.9	33.20	8.1	24.6	5.67
I32	09 Mar 2017	3	14.49	49.29	7.3	33.20	8.1	24.7	6.86
I32	09 Mar 2017	4	14.21	53.66	6.7	33.23	8.1	24.8	6.38
I32	09 Mar 2017	5	13.96	47.84	6.6	33.29	8.0	24.9	5.70
I32	09 Mar 2017	6	13.91	17.27	6.7	33.29	8.0	24.9	5.09
I32	09 Mar 2017	7	13.83	13.12	6.6	33.29	8.0	24.9	4.41
I32	09 Mar 2017	8	13.76	13.41	6.4	33.29	8.0	24.9	3.76
I32	09 Mar 2017	9	13.51	14.36	6.6	33.31	8.0	25.0	3.78
I32	18 Mar 2017	1	16.09	65.21	8.7	33.24	8.2	24.4	0.46
I32	18 Mar 2017	2	15.82	64.68	8.2	33.37	8.2	24.5	0.47
I32	18 Mar 2017	3	15.58	62.12	7.8	33.40	8.1	24.6	0.45
I32	18 Mar 2017	4	15.44	57.42	7.5	33.38	8.1	24.6	0.47
I32	18 Mar 2017	5	15.17	53.50	7.4	33.55	8.1	24.8	0.44
I32	18 Mar 2017	6	14.92	52.59	7.2	33.65	8.1	24.9	0.47
I32	18 Mar 2017	7	14.53	48.86	6.8	33.53	8.1	24.9	0.49
I32	18 Mar 2017	8	14.31	51.28	6.6	33.53	8.0	25.0	0.49
I32	18 Mar 2017	9	14.14	47.84	6.2	33.48	8.0	25.0	0.45
I32	18 Mar 2017	10	14.11	37.74	6.1	33.41	8.0	24.9	0.50
I32	22 Mar 2017	1	16.86	33.89	10.2	32.95	8.3	24.0	16.76
I32	22 Mar 2017	2	16.85	46.81	9.9	33.00	8.3	24.0	19.51
I32	22 Mar 2017	3	16.69	51.75	9.2	33.03	8.3	24.1	15.67
I32	22 Mar 2017	4	16.51	57.66	9.0	33.06	8.3	24.1	14.02
I32	22 Mar 2017	5	16.47	61.07	9.1	33.09	8.2	24.2	12.21
I32	22 Mar 2017	6	16.48	63.76	9.2	33.12	8.2	24.2	11.03
I32	22 Mar 2017	7	16.52	66.02	9.1	33.14	8.2	24.2	10.01
I32	22 Mar 2017	8	16.49	68.34	9.0	33.14	8.2	24.2	8.23
I32	22 Mar 2017	9	16.39	70.73	8.8	33.15	8.2	24.2	6.52
I32	22 Mar 2017	10	16.27	73.80	9.1	33.16	8.2	24.3	6.75
I32	26 Mar 2017	1	15.80	49.64	8.3	33.27	8.2	24.5	10.87
I32	26 Mar 2017	2	15.79	49.91	8.1	33.27	8.2	24.5	12.40
I32	26 Mar 2017	3	15.73	47.83	7.9	33.27	8.2	24.5	12.18
I32	26 Mar 2017	4	15.61	41.24	7.9	33.28	8.1	24.5	11.64
I32	26 Mar 2017	5	15.54	32.30	7.9	33.28	8.1	24.5	10.15
I32	26 Mar 2017	6	15.51	27.96	7.6	33.28	8.1	24.5	8.09
I32	26 Mar 2017	7	15.41	23.18	6.7	33.28	8.1	24.6	6.36
I32	26 Mar 2017	8	15.26	16.72	5.4	33.29	8.1	24.6	4.87
I32	26 Mar 2017	9	14.46	10.16	5.1	33.33	8.0	24.8	4.22
I32	26 Mar 2017	10	14.00	2.98	6.1	33.32	8.0	24.9	4.47
I39	03 Mar 2017	1	14.44	75.91	7.9	33.06	8.1	24.6	1.13
I39	03 Mar 2017	2	14.44	75.99	7.8	33.06	8.1	24.6	1.16
I39	03 Mar 2017	3	14.39	75.86	7.7	33.06	8.1	24.6	1.11
I39	03 Mar 2017	4	14.33	75.50	7.6	33.06	8.1	24.6	1.01

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I39	03 Mar 2017	5	14.28	75.58	7.3	33.07	8.1	24.6	1.02
I39	03 Mar 2017	6	14.19	76.19	7.0	33.10	8.1	24.7	0.93
I39	03 Mar 2017	7	14.11	76.94	6.6	33.14	8.1	24.7	0.84
I39	03 Mar 2017	8	13.90	79.46	6.5	33.22	8.0	24.8	0.93
I39	03 Mar 2017	9	13.72	84.45	6.4	33.26	8.0	24.9	0.90
I39	03 Mar 2017	10	13.61	87.94	6.3	33.28	8.0	24.9	0.99
I39	03 Mar 2017	11	13.48	89.21	6.2	33.30	8.0	25.0	0.99
I39	03 Mar 2017	12	13.36	88.82	6.1	33.32	8.0	25.0	0.96
I39	03 Mar 2017	13	13.32	87.69	6.0	33.31	8.0	25.0	1.03
I39	03 Mar 2017	14	13.23	85.21	6.0	33.32	8.0	25.0	1.08
I39	03 Mar 2017	15	13.22	81.76	6.1	33.32	8.0	25.0	1.08
I39	03 Mar 2017	16	13.22	80.49	6.1	33.32	8.0	25.0	1.04
I39	03 Mar 2017	17	13.20	80.12	6.0	33.32	8.0	25.1	1.06
I39	03 Mar 2017	18	13.20	79.85	6.0	33.32	8.0	25.1	1.04
I39	09 Mar 2017	1	14.62	66.49	8.0	33.12	8.1	24.6	2.24
I39	09 Mar 2017	2	14.44	67.29	7.8	33.12	8.1	24.6	2.71
I39	09 Mar 2017	3	14.31	69.57	7.0	33.13	8.1	24.7	2.42
I39	09 Mar 2017	4	14.19	74.01	6.2	33.17	8.1	24.7	1.98
I39	09 Mar 2017	5	13.62	79.31	5.8	33.28	8.1	24.9	1.68
I39	09 Mar 2017	6	13.35	84.65	5.6	33.31	8.0	25.0	1.56
I39	09 Mar 2017	7	13.02	86.66	5.6	33.34	8.0	25.1	1.56
I39	09 Mar 2017	8	12.85	87.47	5.6	33.35	8.0	25.1	1.49
I39	09 Mar 2017	9	12.74	87.96	5.6	33.36	8.0	25.2	1.55
I39	09 Mar 2017	10	12.67	87.95	5.7	33.36	8.0	25.2	1.80
I39	09 Mar 2017	11	12.66	86.90	5.7	33.37	7.9	25.2	1.69
I39	09 Mar 2017	12	12.65	86.57	5.5	33.37	7.9	25.2	1.64
I39	09 Mar 2017	13	12.62	86.26	5.2	33.37	7.9	25.2	1.42
I39	09 Mar 2017	14	12.50	85.40	4.7	33.39	7.9	25.2	1.32
I39	09 Mar 2017	15	12.08	82.49	4.7	33.45	7.9	25.4	1.49
I39	09 Mar 2017	16	11.95	79.13	4.7	33.45	7.9	25.4	1.35
I39	09 Mar 2017	17	11.77	79.20	4.6	33.46	7.9	25.4	1.27
I39	09 Mar 2017	18	11.67	73.18	4.7	33.47	7.8	25.5	1.23
I39	18 Mar 2017	1	15.99	76.72	8.6	33.23	8.2	24.4	1.91
I39	18 Mar 2017	2	15.66	76.83	8.4	33.37	8.2	24.6	2.13
I39	18 Mar 2017	3	15.15	76.40	8.2	33.36	8.2	24.7	2.82
I39	18 Mar 2017	4	14.98	77.79	8.0	33.33	8.1	24.7	3.65
I39	18 Mar 2017	5	14.82	78.60	7.7	33.32	8.1	24.7	4.23
I39	18 Mar 2017	6	14.73	78.65	7.3	33.31	8.1	24.7	4.17
I39	18 Mar 2017	7	14.49	78.73	7.0	33.33	8.1	24.8	3.72
I39	18 Mar 2017	8	14.31	78.75	6.7	33.32	8.1	24.8	3.43
I39	18 Mar 2017	9	14.19	78.74	6.6	33.32	8.1	24.8	2.86
I39	18 Mar 2017	10	14.10	78.46	6.6	33.32	8.0	24.9	2.33
I39	18 Mar 2017	11	14.07	76.66	6.6	33.31	8.0	24.9	2.17
I39	18 Mar 2017	12	14.04	76.13	6.6	33.31	8.0	24.9	2.09
I39	18 Mar 2017	13	14.01	74.82	6.8	33.31	8.0	24.9	2.27
I39	18 Mar 2017	14	13.97	73.26	6.8	33.31	8.0	24.9	2.39
I39	18 Mar 2017	15	13.92	73.12	6.8	33.31	8.0	24.9	2.12
I39	18 Mar 2017	16	13.88	74.17	6.7	33.31	8.0	24.9	1.98
I39	18 Mar 2017	17	13.86	76.19	6.4	33.31	8.0	24.9	1.64
I39	18 Mar 2017	18	13.85	77.35	6.2	33.31	8.0	24.9	1.41
I39	22 Mar 2017	1	16.32	74.73	7.4	32.95	8.2	24.1	3.50
I39	22 Mar 2017	2	16.32	75.68	7.3	33.13	8.2	24.2	4.14

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I39	22 Mar 2017	3	16.30	75.42	8.3	33.18	8.2	24.3	5.10
I39	22 Mar 2017	4	16.27	74.62	9.1	33.21	8.2	24.3	5.16
I39	22 Mar 2017	5	16.25	73.49	9.2	33.22	8.2	24.3	1.88
I39	22 Mar 2017	6	16.09	72.72	9.1	33.28	8.2	24.4	2.39
I39	22 Mar 2017	7	15.96	72.91	8.8	33.27	8.2	24.4	5.76
I39	22 Mar 2017	8	15.81	73.07	8.2	33.28	8.2	24.5	6.23
I39	22 Mar 2017	9	15.26	74.79	8.0	33.34	8.2	24.6	6.30
I39	22 Mar 2017	10	15.13	75.72	7.9	33.32	8.1	24.7	6.94
I39	22 Mar 2017	11	15.11	74.70	7.7	33.29	8.1	24.6	7.53
I39	22 Mar 2017	12	15.07	74.89	6.8	33.29	8.1	24.6	7.46
I39	22 Mar 2017	13	14.88	75.25	5.8	33.33	8.1	24.7	6.89
I39	22 Mar 2017	14	14.47	75.55	5.5	33.37	8.0	24.8	5.19
I39	22 Mar 2017	15	14.30	75.28	5.8	33.34	8.0	24.8	4.18
I39	22 Mar 2017	16	14.34	74.77	5.9	33.31	8.0	24.8	3.22
I39	22 Mar 2017	17	14.20	73.46	6.0	33.33	8.0	24.9	2.48
I39	22 Mar 2017	18	14.20	71.58	6.1	33.31	8.0	24.8	2.12
I39	26 Mar 2017	1	15.43	69.98	7.9	33.25	8.1	24.5	5.55
I39	26 Mar 2017	2	15.43	69.92	7.8	33.25	8.1	24.5	6.14
I39	26 Mar 2017	3	15.42	69.87	7.3	33.25	8.1	24.5	6.06
I39	26 Mar 2017	4	15.30	69.81	6.9	33.26	8.1	24.6	5.71
I39	26 Mar 2017	5	14.68	69.65	6.5	33.31	8.1	24.7	4.93
I39	26 Mar 2017	6	14.71	72.48	5.8	33.26	8.1	24.7	4.01
I39	26 Mar 2017	7	13.89	77.86	5.5	33.34	8.1	24.9	3.44
I39	26 Mar 2017	8	13.52	80.21	5.6	33.34	8.0	25.0	3.12
I39	26 Mar 2017	9	13.43	82.63	5.6	33.34	8.0	25.0	2.83
I39	26 Mar 2017	10	13.37	83.91	5.7	33.34	8.0	25.0	2.66
I39	26 Mar 2017	11	13.29	85.17	5.7	33.34	8.0	25.1	2.56
I39	26 Mar 2017	12	13.27	85.87	5.8	33.34	8.0	25.1	2.47
I39	26 Mar 2017	13	13.22	85.70	5.9	33.34	8.0	25.1	2.46
I39	26 Mar 2017	14	13.20	85.21	5.8	33.34	8.0	25.1	2.27
I39	26 Mar 2017	15	13.19	84.97	5.3	33.34	8.0	25.1	1.88
I39	26 Mar 2017	16	13.14	84.94	4.8	33.34	8.0	25.1	1.46
I39	26 Mar 2017	17	12.77	82.11	4.5	33.37	7.9	25.2	1.36
I39	26 Mar 2017	18	12.61	67.37	4.6	33.38	7.9	25.2	1.25
I40	03 Mar 2017	1	15.07	36.00	7.1	32.52	8.0	24.0	1.10
I40	03 Mar 2017	2	14.51	41.82	6.9	33.03	8.0	24.6	1.48
I40	03 Mar 2017	3	14.29	39.91	6.9	33.09	8.0	24.7	1.67
I40	03 Mar 2017	4	14.24	37.28	7.2	33.13	8.0	24.7	1.66
I40	03 Mar 2017	5	14.23	39.94	7.2	33.16	8.0	24.7	1.72
I40	03 Mar 2017	6	14.18	53.60	7.1	33.20	8.1	24.8	1.67
I40	03 Mar 2017	7	14.07	71.18	6.9	33.22	8.1	24.8	1.61
I40	03 Mar 2017	8	14.03	67.14	6.5	33.22	8.0	24.8	1.57
I40	03 Mar 2017	9	13.96	62.34	6.3	33.23	8.0	24.8	1.53
I40	03 Mar 2017	10	13.94	18.00	6.8	33.23	8.0	24.8	1.62
I40	09 Mar 2017	1	14.77	40.39	7.7	32.98	8.0	24.5	2.15
I40	09 Mar 2017	2	14.64	42.81	7.9	33.04	8.1	24.5	4.28
I40	09 Mar 2017	3	14.39	45.91	7.3	33.11	8.1	24.6	4.56
I40	09 Mar 2017	4	14.19	54.02	6.6	33.18	8.1	24.7	3.58
I40	09 Mar 2017	5	13.98	52.42	6.2	33.22	8.0	24.8	2.69
I40	09 Mar 2017	6	13.78	39.06	6.3	33.24	8.0	24.9	2.46
I40	09 Mar 2017	7	13.72	27.42	6.3	33.24	8.0	24.9	2.34
I40	09 Mar 2017	8	13.73	20.86	6.0	33.24	8.0	24.9	2.24

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens ($\sigma\text{-t}$)	Chlor ($\mu\text{g/L}$)
I40	09 Mar 2017	9	13.59	15.13	6.0	33.30	8.0	25.0	2.17
I40	09 Mar 2017	10	13.52	7.15	6.3	33.29	7.9	25.0	2.16
I40	18 Mar 2017	1	15.75	60.25	8.7	32.61	8.1	24.0	1.62
I40	18 Mar 2017	2	15.60	59.28	8.1	32.87	8.1	24.2	1.87
I40	18 Mar 2017	3	15.20	61.91	7.5	33.26	8.1	24.6	2.53
I40	18 Mar 2017	4	15.03	61.81	7.4	33.29	8.1	24.6	3.02
I40	18 Mar 2017	5	14.95	63.72	7.3	33.29	8.1	24.7	3.20
I40	18 Mar 2017	6	14.90	64.76	7.0	33.29	8.1	24.7	3.19
I40	18 Mar 2017	7	14.79	64.94	7.0	33.31	8.0	24.7	2.90
I40	18 Mar 2017	8	14.70	62.04	6.9	33.30	8.0	24.7	2.61
I40	18 Mar 2017	9	14.53	59.73	6.5	33.32	8.0	24.8	2.38
I40	18 Mar 2017	10	14.37	62.03	6.5	33.32	8.0	24.8	2.24
I40	22 Mar 2017	1	16.88	64.35	8.1	32.83	8.2	23.9	2.94
I40	22 Mar 2017	2	16.85	65.56	8.4	32.89	8.2	23.9	5.32
I40	22 Mar 2017	3	16.80	69.36	8.6	33.01	8.2	24.0	5.65
I40	22 Mar 2017	4	16.75	72.93	9.0	33.07	8.2	24.1	3.31
I40	22 Mar 2017	5	16.69	76.55	9.0	33.21	8.2	24.2	0.92
I40	22 Mar 2017	6	16.68	78.63	8.9	33.24	8.2	24.2	3.72
I40	22 Mar 2017	7	16.60	77.55	8.4	33.25	8.2	24.3	5.86
I40	22 Mar 2017	8	16.55	72.65	7.9	33.26	8.2	24.3	6.17
I40	22 Mar 2017	9	16.05	68.94	7.8	33.38	8.2	24.5	6.83
I40	22 Mar 2017	10	15.52	65.02	7.9	33.36	8.1	24.6	6.46
I40	26 Mar 2017	1	15.95	62.51	8.4	33.27	8.2	24.4	6.27
I40	26 Mar 2017	2	15.95	62.78	8.3	33.27	8.2	24.4	7.56
I40	26 Mar 2017	3	15.95	62.51	8.2	33.27	8.2	24.4	9.08
I40	26 Mar 2017	4	15.92	61.93	7.9	33.27	8.2	24.4	9.03
I40	26 Mar 2017	5	15.87	59.40	7.5	33.27	8.2	24.4	7.82
I40	26 Mar 2017	6	15.70	54.08	7.1	33.28	8.1	24.5	6.05
I40	26 Mar 2017	7	15.39	39.06	6.6	33.30	8.1	24.6	4.53
I40	26 Mar 2017	8	15.02	27.52	6.0	33.31	8.1	24.7	3.64
I40	26 Mar 2017	9	14.82	23.99	5.2	33.30	8.0	24.7	3.23
I40	26 Mar 2017	10	14.17	21.31	5.5	33.34	8.0	24.9	3.46

NA = not available

APPENDIX A

Quality Assurance

Table A.1

Summary of bacteriological quality assurance field and lab duplicate sample analyses at selected SBOO stations. Densities of total coliform (Total), fecal coliform (Fecal), and *Enterococcus* (Enter) are reported as CFU/100 mL.

Station	Date	Depth	Analyst	Procedure	Total	Fecal	Enter
I19	03 Mar 2017	6	LM	LAB DUPLICATE	1100	48	180e
I19	09 Mar 2017	6	LMA	LAB DUPLICATE	80e	2e	76
I19	18 Mar 2017	6	JT	LAB DUPLICATE	12e	2e	4e
I19	22 Mar 2017	6	AR	LAB DUPLICATE	ns	<2	<2
I19	22 Mar 2017	6	LMA	LAB DUPLICATE	<2	ns	ns
I19	26 Mar 2017	6	AR	LAB DUPLICATE	ns	70	ns
I19	26 Mar 2017	6	JT	LAB DUPLICATE	1200	ns	38e
I40	03 Mar 2017	6	LM	LAB DUPLICATE	580	44	80
I40	09 Mar 2017	6	LMA	LAB DUPLICATE	20e	<2	50
I40	18 Mar 2017	6	JT	LAB DUPLICATE	40e	16e	<2
I40	22 Mar 2017	6	AR	LAB DUPLICATE	ns	4e	<2
I40	22 Mar 2017	6	LMA	LAB DUPLICATE	70	ns	ns
I40	26 Mar 2017	6	AR	LAB DUPLICATE	ns	<2	ns
I40	26 Mar 2017	6	JT	LAB DUPLICATE	<2	ns	10e
S12	07 Mar 2017		LMA	FIELD DUPLICATE	760	36e	380e
S12	07 Mar 2017		LMA	LAB DUPLICATE	1100	30e	400
S12	14 Mar 2017		JT	FIELD DUPLICATE	80e	6e	52
S12	14 Mar 2017		JT	LAB DUPLICATE	28e	2e	48
S12	21 Mar 2017		LMA	FIELD DUPLICATE	40e	4e	8e
S12	21 Mar 2017		LMA	LAB DUPLICATE	<20	<2	10e
S12	28 Mar 2017		JT	FIELD DUPLICATE	20e	2e	34e
S12	28 Mar 2017		JT	LAB DUPLICATE	<20	<2	40e

ns = not sampled

ND = no data

