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

OCTOBER 2017

Environmental Monitoring and Technical Services
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The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring & Technical Services Division

November 30, 2017

Mr. David W. 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 October 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,

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

TS/rjg

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

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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:

<u>30-day Geometric Mean</u>: 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 October, one of the eight shore stations located north of the border was out of compliance with various California Ocean Plan (Ocean Plan) water-contact standards; these standards do not apply to stations located in Mexican waters.
    - The single sample maximum (SSM) standard for *Enterococcus* was exceeded at station S10 on October 17.
    - Per permit requirements, a resample was collected in response to this SSM exceedance (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).
- Nothing of sewage origin was observed at any of the shore stations.

- **Kelp Bed Water Quality Sampling**
  - The seven kelp bed water quality stations (I19, I24, I25, I26, I32, I39, I40) were sampled five times during October (i.e. October 2, 10, 17, 26, 30).
  - During October, one of the kelp bed stations was out of compliance with various California Ocean Plan (Ocean Plan) water-contact standards as follows:
    - The SSM standards for total coliform bacteria, fecal coliform bacteria, *Enterococcus*, and the SSM standard that states total coliform densities shall not exceed 1000 CFU/100 mL when the fecal:total ratio exceeds 0.1, were each exceeded at station I19 on October 26 at one or more depths.
  - Water column temperatures ranged from 14.94 to 20.20°C. The difference between surface and bottom waters ranged from 0.06 to 4.65°C, indicating the water column was stratified at some of these sites during the month.
  - Chlorophyll *a* concentrations ranged from 0.54 to 7.58 µg/L at the kelp bed stations, suggesting the presence of phytoplankton blooms during the month.
  - A sewage-like odor was observed at station I19 on October 26.

- **Offshore Water Quality Sampling**
  - Quarterly sampling was not conducted during October at the offshore stations. The next quarterly sampling is scheduled for November 2017.

TABLES AND FIGURES

Figure 1.1 Station Map

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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 Oct 2017	28*	11*	20*	11*	63*	34*	26*	26*
02 Oct 2017	28*	11*	20*	11*	63*	34*	26*	26*
03 Oct 2017	22	8	20	8	32	22	25	25
04 Oct 2017	22	8	20	8	32	22	25	25
05 Oct 2017	13*	4*	20*	6*	20*	9*	20*	15*
06 Oct 2017	13*	4*	20*	6*	20*	9*	20*	15*
07 Oct 2017	13*	4*	20*	6*	20*	9*	20*	15*
08 Oct 2017	13*	4*	20*	6*	20*	9*	20*	15*
09 Oct 2017	13*	4*	20*	6*	20*	9*	20*	15*
10 Oct 2017	16	4	20	5	23	16	20	16
11 Oct 2017	16	4	20	5	23	16	20	16
12 Oct 2017	19*	5*	20*	6*	24*	22*	20*	15*
13 Oct 2017	19*	5*	20*	6*	24*	22*	20*	15*
14 Oct 2017	19*	5*	20*	6*	24*	22*	20*	15*
15 Oct 2017	19*	5*	20*	6*	24*	22*	20*	15*
16 Oct 2017	19*	5*	20*	6*	24*	22*	20*	15*
17 Oct 2017	19	7	20	8	23	27	20	16
18 Oct 2017	19	7	20	8	23	27	20	16
19 Oct 2017	19*	6*	20*	6*	13*	30*	20*	20*
20 Oct 2017	19*	6*	20*	6*	13*	30*	20*	20*
21 Oct 2017	19*	6*	20*	6*	13*	30*	20*	20*
22 Oct 2017	19*	6*	20*	6*	13*	30*	20*	20*
23 Oct 2017	19*	6*	20*	6*	13*	30*	20*	20*
24 Oct 2017	19	7	20	8	24	27	20	20
25 Oct 2017	19	7	20	8	24	27	20	20
26 Oct 2017	19*	10*	20*	6*	25*	30*	20*	20*
27 Oct 2017	19*	10*	20*	6*	25*	30*	20*	20*
28 Oct 2017	19*	10*	20*	6*	25*	30*	20*	20*
29 Oct 2017	19*	10*	20*	6*	25*	30*	20*	20*
30 Oct 2017	19*	10*	20*	6*	25*	30*	20*	20*
31 Oct 2017	19	11	20	5	15	27	20	20

* 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 Oct 2017	5*	2*	2*	2*	4*	4*	2*	4*
02 Oct 2017	5*	2*	2*	2*	4*	4*	2*	4*
03 Oct 2017	4	2	2	2	3	4	2	3
04 Oct 2017	4	2	2	2	3	4	2	3
05 Oct 2017	3*	2*	2*	2*	4*	3*	2*	2*
06 Oct 2017	3*	2*	2*	2*	4*	3*	2*	2*
07 Oct 2017	3*	2*	2*	2*	4*	3*	2*	2*
08 Oct 2017	3*	2*	2*	2*	4*	3*	2*	2*
09 Oct 2017	3*	2*	2*	2*	4*	3*	2*	2*
10 Oct 2017	3	2	2	2	3	3	2	3
11 Oct 2017	3	2	2	2	3	3	2	3
12 Oct 2017	2*	2*	2*	2*	4*	2*	2*	3*
13 Oct 2017	2*	2*	2*	2*	4*	2*	2*	3*
14 Oct 2017	2*	2*	2*	2*	4*	2*	2*	3*
15 Oct 2017	2*	2*	2*	2*	4*	2*	2*	3*
16 Oct 2017	2*	2*	2*	2*	4*	2*	2*	3*
17 Oct 2017	3	2	3	3	5	4	2	2
18 Oct 2017	3	2	3	3	5	4	2	2
19 Oct 2017	3*	2*	3*	3*	4*	4*	3*	3*
20 Oct 2017	3*	2*	3*	3*	4*	4*	3*	3*
21 Oct 2017	3*	2*	3*	3*	4*	4*	3*	3*
22 Oct 2017	3*	2*	3*	3*	4*	4*	3*	3*
23 Oct 2017	3*	2*	3*	3*	4*	4*	3*	3*
24 Oct 2017	3	2	3	3	3	4	2	2
25 Oct 2017	3	2	3	3	3	4	2	2
26 Oct 2017	4*	2*	3*	3*	4*	4*	3*	3*
27 Oct 2017	4*	2*	3*	3*	4*	4*	3*	3*
28 Oct 2017	4*	2*	3*	3*	4*	4*	3*	3*
29 Oct 2017	4*	2*	3*	3*	4*	4*	3*	3*
30 Oct 2017	4*	2*	3*	3*	4*	4*	3*	3*
31 Oct 2017	3	2	3	3	3	4	2	2

* 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 Oct 2017	5	3*	3*	2*	2*	5	3*	4*
02 Oct 2017	5	3*	3*	2*	2*	5	3*	4*
03 Oct 2017	5	3	3	2	2	4	3	3
04 Oct 2017	5	3	3	2	2	4	3	3
05 Oct 2017	2	2*	2*	2*	2*	2	2*	2*
06 Oct 2017	2	2*	2*	2*	2*	2	2*	2*
07 Oct 2017	2*	2*	2*	2*	2*	2*	2*	2*
08 Oct 2017	2*	2*	2*	2*	2*	2*	2*	2*
09 Oct 2017	2*	2*	2*	2*	2*	2*	2*	2*
10 Oct 2017	4	2	2	2	2	3	2	2
11 Oct 2017	4	2	2	2	2	3	2	2
12 Oct 2017	4*	2*	2*	2*	2*	3*	2*	2*
13 Oct 2017	4*	2*	2*	2*	2*	3*	2*	2*
14 Oct 2017	4*	2*	2*	2*	2*	3*	2*	2*
15 Oct 2017	4*	2*	2*	2*	2*	3*	2*	2*
16 Oct 2017	4*	2*	2*	2*	2*	3*	2*	2*
17 Oct 2017	6	3	3	2	2	8	2	3
18 Oct 2017	6	3	3	2	2	8	2	3
19 Oct 2017	8*	3*	3*	2*	2*	8	2*	3*
20 Oct 2017	8*	3*	3*	2*	2*	8	2*	3*
21 Oct 2017	8*	3*	3*	2*	2*	8	2*	3*
22 Oct 2017	8*	3*	3*	2*	2*	8	2*	3*
23 Oct 2017	8*	3*	3*	2*	2*	8	2*	3*
24 Oct 2017	6	3	3	2	2	6	2	3
25 Oct 2017	6	3	3	2	2	6	2	3
26 Oct 2017	8*	3*	3*	2*	2*	8	2*	3*
27 Oct 2017	8*	3*	3*	2*	2*	8	2*	3*
28 Oct 2017	8*	3*	3*	2*	2*	8	2*	3*
29 Oct 2017	8*	3*	3*	2*	2*	8	2*	3*
30 Oct 2017	8*	3*	3*	2*	2*	8	2*	3*
31 Oct 2017	7	3	3	2	2	6	2	3

* 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
03 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
10 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
17 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
24 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
31 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

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
03 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
10 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
17 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
24 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
31 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

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
03 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
10 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
17 Oct 2017	IC	IC	IC	IC	IC	E	IC	IC
19 Oct 2017	ns	ns	ns	ns	ns	IC	ns	ns
24 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
31 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

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
03 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
10 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
17 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
24 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC
31 Oct 2017	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

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* (Entero) 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	Entero	F:T
S0	03 Oct 2017	1100	540	40	480	0.074
S0	10 Oct 2017	1010	40e	2e	6e	0.050
S0	17 Oct 2017	1040	<20	2e	32e	0.100
S0	24 Oct 2017	1000	<20	2e	2e	0.100
S0	31 Oct 2017	1100	4000	72	480	0.018
S2	03 Oct 2017	1220	<2	<2	2e	1.000
S2	10 Oct 2017	1130	<20	<2	<2	0.100
S2	17 Oct 2017	1238	<20	<2	<2	0.100
S2	24 Oct 2017	1130	40e	2e	<2	0.050
S2	31 Oct 2017	925	20e	<2	6e	0.100
S3	03 Oct 2017	1205	<2	<2	<2	1.000
S3	10 Oct 2017	1100	<20	<2	2e	0.100
S3	17 Oct 2017	1150	<2	<2	<2	1.000
S3	24 Oct 2017	1100	60e	2e	4e	0.033
S3	31 Oct 2017	955	<2	<2	<2	1.000
S4	03 Oct 2017	854	8e	<2	4e	0.250
S4	10 Oct 2017	847	40e	<2	22e	0.050
S4	17 Oct 2017	855	20e	14e	26e	0.700
S4	24 Oct 2017	916	<20	4e	2e	0.200
S4	31 Oct 2017	914	<20	<2	4e	0.100
S5	03 Oct 2017	1016	<2	<2	<2	1.000
S5	10 Oct 2017	1024	6e	<2	<2	0.333
S5	17 Oct 2017	1027	40e	2e	8e	0.050
S5	24 Oct 2017	1059	<20	<2	<2	0.100
S5	31 Oct 2017	1038	<20	4e	<2	0.200
S6	03 Oct 2017	1004	<20	<2	2e	0.100
S6	10 Oct 2017	1012	<20	2e	2e	0.100
S6	17 Oct 2017	1017	<20	8e	8e	0.400
S6	24 Oct 2017	1035	<20	<2	<2	0.100
S6	31 Oct 2017	1027	<20	<2	<2	0.100
S8	03 Oct 2017	1131	<2	<2	<2	1.000
S8	10 Oct 2017	1141	2e	<2	<2	1.000
S8	17 Oct 2017	1142	<20	10e	<2	0.500
S8	24 Oct 2017	1232	<20	<2	<2	0.100
S8	31 Oct 2017	1236	<2	<2	<2	1.000
S9	03 Oct 2017	1213	<2	<2	<2	1.000
S9	10 Oct 2017	1224	40e	2e	<2	0.050
S9	17 Oct 2017	1222	<20	<20	4e	1.000
S9	24 Oct 2017	1320	260e	<2	<2	0.008
S9	31 Oct 2017	1322	<2	<2	<2	1.000
S10	03 Oct 2017	848	4e	<2	<2	0.500

Station	Date	Time	Total	Fecal	Entero	F:T
S10	10 Oct 2017	837	160e	2e	12e	0.012
S10	17 Oct 2017	850	60	40	320e	0.667
S10	19 Oct 2017	1104	ns	ns	2e	ns
S10	24 Oct 2017	910	<20	2e	<2	0.100
S10	31 Oct 2017	908	<20	<2	<2	0.100
S11	03 Oct 2017	1009	<20	<2	2e	0.100
S11	10 Oct 2017	1018	<20	2e	4e	0.100
S11	17 Oct 2017	1022	<20	6e	2e	0.300
S11	24 Oct 2017	1040	<20	<2	<2	0.100
S11	31 Oct 2017	1032	<20	2e	<2	0.100
S12	03 Oct 2017	951	20e	<2	2e	0.100
S12	10 Oct 2017	956	<20	6e	4e	0.300
S12	17 Oct 2017	1005	20e	<2	8e	0.100
S12	24 Oct 2017	1023	20e	<2	<2	0.100
S12	31 Oct 2017	1016	<20	2e	<2	0.100

ns = not sampled
ND = no data

Comments

Station	Date	Depth	Parameter	Comments
S10	19 Oct 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	03 Oct 2017	Arrive Time	1100
S0	03 Oct 2017	Weather	Cloudy
S0	03 Oct 2017	Wind Speed (kts)	0.7
S0	03 Oct 2017	Wind Dir	SW
S0	03 Oct 2017	Animal Life	15 Shorebirds; 5 Dogs
S0	03 Oct 2017	Floatables	None
S0	03 Oct 2017	Water Color	Green
S0	03 Oct 2017	Current Direction	SW
S0	03 Oct 2017	Water Temp (C)	17
S0	03 Oct 2017	Wave Height Low (ft)	2
S0	03 Oct 2017	High Tide (ft)	5
S0	03 Oct 2017	High Tide Time	824
S0	03 Oct 2017	Low Tide (ft)	1
S0	03 Oct 2017	Low Tide Time	1424
S0	03 Oct 2017	Comments	5 Persons; Water clear; Flow from storm drain 1 L/sec
S0	10 Oct 2017	Arrive Time	1010
S0	10 Oct 2017	Weather	Sunny
S0	10 Oct 2017	Wind Speed (kts)	1.3
S0	10 Oct 2017	Wind Dir	SE
S0	10 Oct 2017	Animal Life	20 Birds; 5 Dogs
S0	10 Oct 2017	Floatables	None
S0	10 Oct 2017	Water Color	Green
S0	10 Oct 2017	Current Direction	N
S0	10 Oct 2017	Water Temp (C)	16
S0	10 Oct 2017	Wave Height Low (ft)	2
S0	10 Oct 2017	High Tide (ft)	5.4
S0	10 Oct 2017	High Tide Time	1239
S0	10 Oct 2017	Low Tide (ft)	2.2
S0	10 Oct 2017	Low Tide Time	622
S0	10 Oct 2017	Comments	20 Persons; Water clear; Flow from storm drain1.0 L/sec
S0	17 Oct 2017	Arrive Time	1040
S0	17 Oct 2017	Weather	Sunny
S0	17 Oct 2017	Wind Speed (kts)	1.5
S0	17 Oct 2017	Wind Dir	SW
S0	17 Oct 2017	Animal Life	>20 Shorebirds; 5 Dogs
S0	17 Oct 2017	Floatables	None
S0	17 Oct 2017	Water Color	Green
S0	17 Oct 2017	Current Direction	SW
S0	17 Oct 2017	Water Temp (C)	16
S0	17 Oct 2017	Wave Height Low (ft)	2
S0	17 Oct 2017	High Tide (ft)	5.5
S0	17 Oct 2017	High Tide Time	821
S0	17 Oct 2017	Low Tide (ft)	0.5
S0	17 Oct 2017	Low Tide Time	1436
S0	17 Oct 2017	Comments	Kelp; 5 Persons; Water clear; Flow from storm drain 2 L/sec
S0	24 Oct 2017	Arrive Time	1000
S0	24 Oct 2017	Weather	Sunny
S0	24 Oct 2017	Wind Speed (kts)	0.9

Station	Date	Parameter	Value
S0	24 Oct 2017	Wind Dir	NE
S0	24 Oct 2017	Animal Life	5 Shorebirds
S0	24 Oct 2017	Floatables	None
S0	24 Oct 2017	Water Color	Green
S0	24 Oct 2017	Current Direction	NE
S0	24 Oct 2017	Water Temp (C)	18
S0	24 Oct 2017	Wave Height Low (ft)	6
S0	24 Oct 2017	High Tide (ft)	4.9
S0	24 Oct 2017	High Tide Time	1136
S0	24 Oct 2017	Low Tide (ft)	2.5
S0	24 Oct 2017	Low Tide Time	524
S0	24 Oct 2017	Comments	Kelp; 6 Persons; 15 Surfers; Water clear; Flow from storm drain 2 L/sec
S0	31 Oct 2017	Arrive Time	1100
S0	31 Oct 2017	Weather	Cloudy
S0	31 Oct 2017	Wind Speed (kts)	3
S0	31 Oct 2017	Wind Dir	SW
S0	31 Oct 2017	Animal Life	>20 Shorebirds; 3 Dogs
S0	31 Oct 2017	Floatables	None
S0	31 Oct 2017	Water Color	Green
S0	31 Oct 2017	Current Direction	SW
S0	31 Oct 2017	Water Temp (C)	15.5
S0	31 Oct 2017	Wave Height Low (ft)	2
S0	31 Oct 2017	High Tide (ft)	5
S0	31 Oct 2017	High Tide Time	716
S0	31 Oct 2017	Low Tide (ft)	1.2
S0	31 Oct 2017	Low Tide Time	1329
S0	31 Oct 2017	Comments	Kelp; Water turbid; Flow from storm drain 1 L/sec
S2	03 Oct 2017	Arrive Time	1220
S2	03 Oct 2017	Weather	Sunny
S2	03 Oct 2017	Wind Speed (kts)	1.9
S2	03 Oct 2017	Wind Dir	SW
S2	03 Oct 2017	Animal Life	>20 Shorebirds
S2	03 Oct 2017	Floatables	None
S2	03 Oct 2017	Water Color	Green
S2	03 Oct 2017	Current Direction	SW
S2	03 Oct 2017	Water Temp (C)	17
S2	03 Oct 2017	Wave Height Low (ft)	2
S2	03 Oct 2017	High Tide (ft)	5
S2	03 Oct 2017	High Tide Time	824
S2	03 Oct 2017	Low Tide (ft)	1
S2	03 Oct 2017	Low Tide Time	1424
S2	03 Oct 2017	Comments	5 Persons; Water clear; No flow from storm drain
S2	10 Oct 2017	Arrive Time	1130
S2	10 Oct 2017	Weather	Sunny
S2	10 Oct 2017	Wind Speed (kts)	0.9
S2	10 Oct 2017	Wind Dir	SW
S2	10 Oct 2017	Animal Life	20 Birds
S2	10 Oct 2017	Floatables	None
S2	10 Oct 2017	Water Color	Green
S2	10 Oct 2017	Current Direction	N
S2	10 Oct 2017	Water Temp (C)	16

Station	Date	Parameter	Value
S2	10 Oct 2017	Wave Height Low (ft)	2
S2	10 Oct 2017	High Tide (ft)	5.4
S2	10 Oct 2017	High Tide Time	1239
S2	10 Oct 2017	Low Tide (ft)	2.2
S2	10 Oct 2017	Low Tide Time	622
S2	10 Oct 2017	Comments	20 Persons; Water clear; No flow from storm drain
S2	17 Oct 2017	Arrive Time	1238
S2	17 Oct 2017	Weather	Sunny
S2	17 Oct 2017	Wind Speed (kts)	1.2
S2	17 Oct 2017	Wind Dir	SW
S2	17 Oct 2017	Animal Life	>20 Shorebirds; 5 Dogs
S2	17 Oct 2017	Floatables	None
S2	17 Oct 2017	Water Color	Green
S2	17 Oct 2017	Current Direction	SW
S2	17 Oct 2017	Water Temp (C)	16
S2	17 Oct 2017	Wave Height Low (ft)	2
S2	17 Oct 2017	High Tide (ft)	5.5
S2	17 Oct 2017	High Tide Time	821
S2	17 Oct 2017	Low Tide (ft)	0.5
S2	17 Oct 2017	Low Tide Time	1436
S2	17 Oct 2017	Comments	Kelp; 5 Persons; Water clear; No flow from storm drain
S2	24 Oct 2017	Arrive Time	1130
S2	24 Oct 2017	Weather	Sunny
S2	24 Oct 2017	Wind Speed (kts)	1.3
S2	24 Oct 2017	Wind Dir	NE
S2	24 Oct 2017	Animal Life	5 Shorebirds
S2	24 Oct 2017	Floatables	None
S2	24 Oct 2017	Water Color	Green
S2	24 Oct 2017	Current Direction	NE
S2	24 Oct 2017	Water Temp (C)	19
S2	24 Oct 2017	Wave Height Low (ft)	5
S2	24 Oct 2017	High Tide (ft)	4.9
S2	24 Oct 2017	High Tide Time	1136
S2	24 Oct 2017	Low Tide (ft)	2.5
S2	24 Oct 2017	Low Tide Time	524
S2	24 Oct 2017	Comments	Kelp; 5 Persons; Water clear; No flow from storm drain
S2	31 Oct 2017	Arrive Time	925
S2	31 Oct 2017	Weather	Cloudy
S2	31 Oct 2017	Wind Speed (kts)	3.6
S2	31 Oct 2017	Wind Dir	SW
S2	31 Oct 2017	Animal Life	>20 Shorebirds
S2	31 Oct 2017	Floatables	None
S2	31 Oct 2017	Water Color	Green
S2	31 Oct 2017	Current Direction	SW
S2	31 Oct 2017	Water Temp (C)	15.5
S2	31 Oct 2017	Wave Height Low (ft)	2
S2	31 Oct 2017	High Tide (ft)	5
S2	31 Oct 2017	High Tide Time	716
S2	31 Oct 2017	Low Tide (ft)	1.2
S2	31 Oct 2017	Low Tide Time	1329
S2	31 Oct 2017	Comments	Kelp; Water turbid; No flow from storm drain

Station	Date	Parameter	Value
S3	03 Oct 2017	Arrive Time	1205
S3	03 Oct 2017	Weather	Sunny
S3	03 Oct 2017	Wind Speed (kts)	2.9
S3	03 Oct 2017	Wind Dir	SW
S3	03 Oct 2017	Animal Life	10 Shorebirds
S3	03 Oct 2017	Floatables	None
S3	03 Oct 2017	Water Color	Green
S3	03 Oct 2017	Current Direction	SW
S3	03 Oct 2017	Water Temp (C)	17
S3	03 Oct 2017	Wave Height Low (ft)	2
S3	03 Oct 2017	High Tide (ft)	5
S3	03 Oct 2017	High Tide Time	824
S3	03 Oct 2017	Low Tide (ft)	1
S3	03 Oct 2017	Low Tide Time	1424
S3	03 Oct 2017	Comments	Kelp; 15 Persons; Water clear; No flow from storm drain
S3	10 Oct 2017	Arrive Time	1100
S3	10 Oct 2017	Weather	Sunny
S3	10 Oct 2017	Wind Speed (kts)	0.9
S3	10 Oct 2017	Wind Dir	NW
S3	10 Oct 2017	Animal Life	10 Birds
S3	10 Oct 2017	Floatables	None
S3	10 Oct 2017	Water Color	Green
S3	10 Oct 2017	Current Direction	N
S3	10 Oct 2017	Water Temp (C)	16
S3	10 Oct 2017	Wave Height Low (ft)	2
S3	10 Oct 2017	High Tide (ft)	5.4
S3	10 Oct 2017	High Tide Time	1239
S3	10 Oct 2017	Low Tide (ft)	2.2
S3	10 Oct 2017	Low Tide Time	622
S3	10 Oct 2017	Comments	5 Persons; Water clear; No flow from storm drain
S3	12 Oct 2017	Arrive Time	1100
S3	12 Oct 2017	Weather	Sunny
S3	12 Oct 2017	Wind Speed (kts)	0.9
S3	12 Oct 2017	Wind Dir	SE
S3	12 Oct 2017	Animal Life	10 Birds
S3	12 Oct 2017	Floatables	None
S3	12 Oct 2017	Water Color	Green
S3	12 Oct 2017	Current Direction	SE
S3	12 Oct 2017	Water Temp (C)	16
S3	12 Oct 2017	Wave Height Low (ft)	2
S3	12 Oct 2017	High Tide (ft)	4.9
S3	12 Oct 2017	High Tide Time	1520
S3	12 Oct 2017	Low Tide (ft)	2.8
S3	12 Oct 2017	Low Tide Time	922
S3	12 Oct 2017	Comments	5 Persons; Water clear; No flow from storm drain
S3	17 Oct 2017	Arrive Time	1150
S3	17 Oct 2017	Weather	Sunny
S3	17 Oct 2017	Wind Speed (kts)	1.1
S3	17 Oct 2017	Wind Dir	SW
S3	17 Oct 2017	Animal Life	15 Shorebirds
S3	17 Oct 2017	Floatables	None
S3	17 Oct 2017	Water Color	Green

Station	Date	Parameter	Value
S3	17 Oct 2017	Current Direction	SW
S3	17 Oct 2017	Water Temp (C)	16
S3	17 Oct 2017	Wave Height Low (ft)	2
S3	17 Oct 2017	High Tide (ft)	5.5
S3	17 Oct 2017	High Tide Time	821
S3	17 Oct 2017	Low Tide (ft)	0.5
S3	17 Oct 2017	Low Tide Time	1436
S3	17 Oct 2017	Comments	Kelp; 15 Persons; Water clear; No flow from storm drain
S3	24 Oct 2017	Arrive Time	1100
S3	24 Oct 2017	Weather	Sunny
S3	24 Oct 2017	Wind Speed (kts)	0.9
S3	24 Oct 2017	Wind Dir	NE
S3	24 Oct 2017	Animal Life	5 Shorebirds
S3	24 Oct 2017	Floatables	None
S3	24 Oct 2017	Water Color	Green
S3	24 Oct 2017	Current Direction	NE
S3	24 Oct 2017	Water Temp (C)	19
S3	24 Oct 2017	Wave Height Low (ft)	5
S3	24 Oct 2017	High Tide (ft)	4.9
S3	24 Oct 2017	High Tide Time	1136
S3	24 Oct 2017	Low Tide (ft)	2.5
S3	24 Oct 2017	Low Tide Time	524
S3	24 Oct 2017	Comments	Kelp; 2 Surfers; Water clear; No flow from storm drain
S3	31 Oct 2017	Arrive Time	955
S3	31 Oct 2017	Weather	Cloudy
S3	31 Oct 2017	Wind Speed (kts)	3.1
S3	31 Oct 2017	Wind Dir	SW
S3	31 Oct 2017	Animal Life	>20 Shorebirds; 2 Dogs
S3	31 Oct 2017	Floatables	None
S3	31 Oct 2017	Water Color	Green
S3	31 Oct 2017	Current Direction	SW
S3	31 Oct 2017	Water Temp (C)	15.5
S3	31 Oct 2017	Wave Height Low (ft)	2
S3	31 Oct 2017	High Tide (ft)	5
S3	31 Oct 2017	High Tide Time	716
S3	31 Oct 2017	Low Tide (ft)	1.2
S3	31 Oct 2017	Low Tide Time	1329
S3	31 Oct 2017	Comments	Kelp; Water turbid; No flow from storm drain
S4	03 Oct 2017	Arrive Time	854
S4	03 Oct 2017	Weather	Cloudy
S4	03 Oct 2017	Wind Speed (kts)	4.8
S4	03 Oct 2017	Wind Dir	W
S4	03 Oct 2017	Animal Life	30 Plovers; 1 Sand Piper; 2 Seagulls
S4	03 Oct 2017	Floatables	None
S4	03 Oct 2017	Water Color	Green
S4	03 Oct 2017	Current Direction	N
S4	03 Oct 2017	Water Temp (C)	15
S4	03 Oct 2017	Wave Height Low (ft)	2
S4	03 Oct 2017	High Tide (ft)	5
S4	03 Oct 2017	High Tide Time	824
S4	03 Oct 2017	Low Tide (ft)	1
S4	03 Oct 2017	Low Tide Time	1424

Station	Date	Parameter	Value
S4	03 Oct 2017	Comments	Kelp; Seagrass; Water clear
S4	10 Oct 2017	Arrive Time	847
S4	10 Oct 2017	Weather	Partly Cloudy
S4	10 Oct 2017	Wind Speed (kts)	3.4
S4	10 Oct 2017	Wind Dir	S
S4	10 Oct 2017	Animal Life	15 Birds
S4	10 Oct 2017	Floatables	None
S4	10 Oct 2017	Water Color	Green
S4	10 Oct 2017	Current Direction	N
S4	10 Oct 2017	Water Temp (C)	13.2
S4	10 Oct 2017	Wave Height Low (ft)	2
S4	10 Oct 2017	High Tide (ft)	5.4
S4	10 Oct 2017	High Tide Time	1239
S4	10 Oct 2017	Low Tide (ft)	2.2
S4	10 Oct 2017	Low Tide Time	622
S4	10 Oct 2017	Comments	Kelp; Water clear; Sea lion carcass 30 feet north of sample site
S4	17 Oct 2017	Arrive Time	855
S4	17 Oct 2017	Weather	Sunny
S4	17 Oct 2017	Wind Speed (kts)	0
S4	17 Oct 2017	Wind Dir	
S4	17 Oct 2017	Animal Life	None
S4	17 Oct 2017	Floatables	None
S4	17 Oct 2017	Water Color	Green
S4	17 Oct 2017	Current Direction	N
S4	17 Oct 2017	Water Temp (C)	14.6
S4	17 Oct 2017	Wave Height Low (ft)	3
S4	17 Oct 2017	High Tide (ft)	5.5
S4	17 Oct 2017	High Tide Time	821
S4	17 Oct 2017	Low Tide (ft)	0.5
S4	17 Oct 2017	Low Tide Time	1436
S4	17 Oct 2017	Comments	Kelp; Seagrass; Water clear
S4	24 Oct 2017	Arrive Time	916
S4	24 Oct 2017	Weather	Sunny
S4	24 Oct 2017	Wind Speed (kts)	3.3
S4	24 Oct 2017	Wind Dir	NW
S4	24 Oct 2017	Animal Life	4 Birds; 8 Plovers; 7 Sand Pipers; 2 Seagulls
S4	24 Oct 2017	Floatables	None
S4	24 Oct 2017	Water Color	Green
S4	24 Oct 2017	Current Direction	N
S4	24 Oct 2017	Water Temp (C)	13.2
S4	24 Oct 2017	Wave Height Low (ft)	4
S4	24 Oct 2017	High Tide (ft)	4.9
S4	24 Oct 2017	High Tide Time	1136
S4	24 Oct 2017	Low Tide (ft)	2.5
S4	24 Oct 2017	Low Tide Time	524
S4	24 Oct 2017	Comments	Kelp; Seagrass; Water clear
S4	31 Oct 2017	Arrive Time	914
S4	31 Oct 2017	Weather	Cloudy
S4	31 Oct 2017	Wind Speed (kts)	4.6
S4	31 Oct 2017	Wind Dir	S
S4	31 Oct 2017	Animal Life	None

Station	Date	Parameter	Value
S4	31 Oct 2017	Floatables	None
S4	31 Oct 2017	Water Color	Green
S4	31 Oct 2017	Current Direction	N
S4	31 Oct 2017	Water Temp (C)	16.6
S4	31 Oct 2017	Wave Height Low (ft)	2
S4	31 Oct 2017	High Tide (ft)	5
S4	31 Oct 2017	High Tide Time	716
S4	31 Oct 2017	Low Tide (ft)	1.2
S4	31 Oct 2017	Low Tide Time	1329
S4	31 Oct 2017	Comments	Kelp; Seagrass; Water clear
S5	03 Oct 2017	Arrive Time	1016
S5	03 Oct 2017	Weather	Cloudy
S5	03 Oct 2017	Wind Speed (kts)	6.7
S5	03 Oct 2017	Wind Dir	W
S5	03 Oct 2017	Animal Life	1 Bird; 15 Plovers; 1 Sand Piper
S5	03 Oct 2017	Floatables	None
S5	03 Oct 2017	Water Color	Green
S5	03 Oct 2017	Current Direction	N
S5	03 Oct 2017	Water Temp (C)	16.3
S5	03 Oct 2017	Wave Height Low (ft)	2
S5	03 Oct 2017	High Tide (ft)	5
S5	03 Oct 2017	High Tide Time	824
S5	03 Oct 2017	Low Tide (ft)	1
S5	03 Oct 2017	Low Tide Time	1424
S5	03 Oct 2017	Comments	Kelp; Seagrass; Water clear
S5	10 Oct 2017	Arrive Time	1024
S5	10 Oct 2017	Weather	Foggy
S5	10 Oct 2017	Wind Speed (kts)	4.5
S5	10 Oct 2017	Wind Dir	N
S5	10 Oct 2017	Animal Life	None
S5	10 Oct 2017	Floatables	None
S5	10 Oct 2017	Water Color	Green
S5	10 Oct 2017	Current Direction	N
S5	10 Oct 2017	Water Temp (C)	14.1
S5	10 Oct 2017	Wave Height Low (ft)	2
S5	10 Oct 2017	High Tide (ft)	5.4
S5	10 Oct 2017	High Tide Time	1239
S5	10 Oct 2017	Low Tide (ft)	2.2
S5	10 Oct 2017	Low Tide Time	622
S5	10 Oct 2017	Comments	Kelp; Seagrass; Water clear
S5	17 Oct 2017	Arrive Time	1027
S5	17 Oct 2017	Weather	Sunny
S5	17 Oct 2017	Wind Speed (kts)	4
S5	17 Oct 2017	Wind Dir	W
S5	17 Oct 2017	Animal Life	None
S5	17 Oct 2017	Floatables	None
S5	17 Oct 2017	Water Color	Green
S5	17 Oct 2017	Current Direction	N
S5	17 Oct 2017	Water Temp (C)	16.6
S5	17 Oct 2017	Wave Height Low (ft)	3
S5	17 Oct 2017	High Tide (ft)	5.5
S5	17 Oct 2017	High Tide Time	821

Station	Date	Parameter	Value
S5	17 Oct 2017	Low Tide (ft)	0.5
S5	17 Oct 2017	Low Tide Time	1436
S5	17 Oct 2017	Comments	Kelp; Seagrass; 1 Surfer; Water clear
S5	24 Oct 2017	Arrive Time	1059
S5	24 Oct 2017	Weather	Sunny
S5	24 Oct 2017	Wind Speed (kts)	3.5
S5	24 Oct 2017	Wind Dir	NW
S5	24 Oct 2017	Animal Life	1 Dog
S5	24 Oct 2017	Floatables	None
S5	24 Oct 2017	Water Color	Green
S5	24 Oct 2017	Current Direction	N
S5	24 Oct 2017	Water Temp (C)	17.1
S5	24 Oct 2017	Wave Height Low (ft)	4
S5	24 Oct 2017	High Tide (ft)	4.9
S5	24 Oct 2017	High Tide Time	1136
S5	24 Oct 2017	Low Tide (ft)	2.5
S5	24 Oct 2017	Low Tide Time	524
S5	24 Oct 2017	Comments	Kelp; Seagrass; 2 Persons; Water clear
S5	31 Oct 2017	Arrive Time	1038
S5	31 Oct 2017	Weather	Cloudy
S5	31 Oct 2017	Wind Speed (kts)	6.9
S5	31 Oct 2017	Wind Dir	S
S5	31 Oct 2017	Animal Life	None
S5	31 Oct 2017	Floatables	None
S5	31 Oct 2017	Water Color	Green
S5	31 Oct 2017	Current Direction	N
S5	31 Oct 2017	Water Temp (C)	16.2
S5	31 Oct 2017	Wave Height Low (ft)	2
S5	31 Oct 2017	High Tide (ft)	5
S5	31 Oct 2017	High Tide Time	716
S5	31 Oct 2017	Low Tide (ft)	1.2
S5	31 Oct 2017	Low Tide Time	1329
S5	31 Oct 2017	Comments	Water clear
S6	03 Oct 2017	Arrive Time	1004
S6	03 Oct 2017	Weather	Cloudy
S6	03 Oct 2017	Wind Speed (kts)	5.6
S6	03 Oct 2017	Wind Dir	W
S6	03 Oct 2017	Animal Life	None
S6	03 Oct 2017	Floatables	None
S6	03 Oct 2017	Water Color	Green
S6	03 Oct 2017	Current Direction	N
S6	03 Oct 2017	Water Temp (C)	15.8
S6	03 Oct 2017	Wave Height Low (ft)	3
S6	03 Oct 2017	High Tide (ft)	5
S6	03 Oct 2017	High Tide Time	824
S6	03 Oct 2017	Low Tide (ft)	1
S6	03 Oct 2017	Low Tide Time	1424
S6	03 Oct 2017	Comments	Kelp; Seagrass; Water clear
S6	10 Oct 2017	Arrive Time	1012
S6	10 Oct 2017	Weather	Foggy
S6	10 Oct 2017	Wind Speed (kts)	1.7

Station	Date	Parameter	Value
S6	10 Oct 2017	Wind Dir	NE
S6	10 Oct 2017	Animal Life	2 Dogs
S6	10 Oct 2017	Floatables	None
S6	10 Oct 2017	Water Color	Green
S6	10 Oct 2017	Current Direction	N
S6	10 Oct 2017	Water Temp (C)	14.3
S6	10 Oct 2017	Wave Height Low (ft)	3
S6	10 Oct 2017	High Tide (ft)	5.4
S6	10 Oct 2017	High Tide Time	1239
S6	10 Oct 2017	Low Tide (ft)	2.2
S6	10 Oct 2017	Low Tide Time	622
S6	10 Oct 2017	Comments	Seagrass; 2 Persons; Water clear
S6	17 Oct 2017	Arrive Time	1017
S6	17 Oct 2017	Weather	Sunny
S6	17 Oct 2017	Wind Speed (kts)	3.4
S6	17 Oct 2017	Wind Dir	W
S6	17 Oct 2017	Animal Life	None
S6	17 Oct 2017	Floatables	None
S6	17 Oct 2017	Water Color	Green
S6	17 Oct 2017	Current Direction	N
S6	17 Oct 2017	Water Temp (C)	15.8
S6	17 Oct 2017	Wave Height Low (ft)	3
S6	17 Oct 2017	High Tide (ft)	5.5
S6	17 Oct 2017	High Tide Time	821
S6	17 Oct 2017	Low Tide (ft)	0.5
S6	17 Oct 2017	Low Tide Time	1436
S6	17 Oct 2017	Comments	Kelp; Seagrass; Water clear
S6	24 Oct 2017	Arrive Time	1035
S6	24 Oct 2017	Weather	Sunny
S6	24 Oct 2017	Wind Speed (kts)	2.8
S6	24 Oct 2017	Wind Dir	NW
S6	24 Oct 2017	Animal Life	None
S6	24 Oct 2017	Floatables	None
S6	24 Oct 2017	Water Color	Green
S6	24 Oct 2017	Current Direction	N
S6	24 Oct 2017	Water Temp (C)	15.8
S6	24 Oct 2017	Wave Height Low (ft)	4
S6	24 Oct 2017	High Tide (ft)	4.9
S6	24 Oct 2017	High Tide Time	1136
S6	24 Oct 2017	Low Tide (ft)	2.5
S6	24 Oct 2017	Low Tide Time	524
S6	24 Oct 2017	Comments	Kelp; Seagrass; 3 Persons; Water clear
S6	31 Oct 2017	Arrive Time	1027
S6	31 Oct 2017	Weather	Cloudy
S6	31 Oct 2017	Wind Speed (kts)	5.8
S6	31 Oct 2017	Wind Dir	S
S6	31 Oct 2017	Animal Life	None
S6	31 Oct 2017	Floatables	None
S6	31 Oct 2017	Water Color	Green
S6	31 Oct 2017	Current Direction	N
S6	31 Oct 2017	Water Temp (C)	15.6
S6	31 Oct 2017	Wave Height Low (ft)	2

Station	Date	Parameter	Value
S6	31 Oct 2017	High Tide (ft)	5
S6	31 Oct 2017	High Tide Time	716
S6	31 Oct 2017	Low Tide (ft)	1.2
S6	31 Oct 2017	Low Tide Time	1329
S6	31 Oct 2017	Comments	Seagrass; Water clear
S8	03 Oct 2017	Arrive Time	1131
S8	03 Oct 2017	Weather	Cloudy
S8	03 Oct 2017	Wind Speed (kts)	7.3
S8	03 Oct 2017	Wind Dir	W
S8	03 Oct 2017	Animal Life	None
S8	03 Oct 2017	Floatables	None
S8	03 Oct 2017	Water Color	Green
S8	03 Oct 2017	Current Direction	N
S8	03 Oct 2017	Water Temp (C)	15.8
S8	03 Oct 2017	Wave Height Low (ft)	2
S8	03 Oct 2017	High Tide (ft)	5
S8	03 Oct 2017	High Tide Time	824
S8	03 Oct 2017	Low Tide (ft)	1
S8	03 Oct 2017	Low Tide Time	1424
S8	03 Oct 2017	Comments	Kelp; Seagrass; 6 Persons; 3 Swimmers; Water clear
S8	10 Oct 2017	Arrive Time	1141
S8	10 Oct 2017	Weather	Sunny
S8	10 Oct 2017	Wind Speed (kts)	4.8
S8	10 Oct 2017	Wind Dir	N
S8	10 Oct 2017	Animal Life	None
S8	10 Oct 2017	Floatables	None
S8	10 Oct 2017	Water Color	Green
S8	10 Oct 2017	Current Direction	N
S8	10 Oct 2017	Water Temp (C)	15.8
S8	10 Oct 2017	Wave Height Low (ft)	2
S8	10 Oct 2017	High Tide (ft)	5.4
S8	10 Oct 2017	High Tide Time	1239
S8	10 Oct 2017	Low Tide (ft)	2.2
S8	10 Oct 2017	Low Tide Time	622
S8	10 Oct 2017	Comments	Seagrass; 13 Persons; 6 Swimmers; Water clear
S8	17 Oct 2017	Arrive Time	1142
S8	17 Oct 2017	Weather	Sunny
S8	17 Oct 2017	Wind Speed (kts)	4.8
S8	17 Oct 2017	Wind Dir	W
S8	17 Oct 2017	Animal Life	None
S8	17 Oct 2017	Floatables	None
S8	17 Oct 2017	Water Color	Green
S8	17 Oct 2017	Current Direction	N
S8	17 Oct 2017	Water Temp (C)	21.3
S8	17 Oct 2017	Wave Height Low (ft)	3
S8	17 Oct 2017	High Tide (ft)	5.5
S8	17 Oct 2017	High Tide Time	821
S8	17 Oct 2017	Low Tide (ft)	0.5
S8	17 Oct 2017	Low Tide Time	1436
S8	17 Oct 2017	Comments	Kelp; Seagrass; Water clear
S8	24 Oct 2017	Arrive Time	1232

Station	Date	Parameter	Value
S8	24 Oct 2017	Weather	Sunny
S8	24 Oct 2017	Wind Speed (kts)	3.3
S8	24 Oct 2017	Wind Dir	NW
S8	24 Oct 2017	Animal Life	None
S8	24 Oct 2017	Floatables	None
S8	24 Oct 2017	Water Color	Green
S8	24 Oct 2017	Current Direction	N
S8	24 Oct 2017	Water Temp (C)	17.7
S8	24 Oct 2017	Wave Height Low (ft)	3
S8	24 Oct 2017	High Tide (ft)	4.9
S8	24 Oct 2017	High Tide Time	1136
S8	24 Oct 2017	Low Tide (ft)	0.8
S8	24 Oct 2017	Low Tide Time	1914
S8	24 Oct 2017	Comments	Kelp; Seagrass; 4 Persons; 2 Swimmers; Water clear
S8	31 Oct 2017	Arrive Time	1236
S8	31 Oct 2017	Weather	Cloudy
S8	31 Oct 2017	Wind Speed (kts)	4.5
S8	31 Oct 2017	Wind Dir	W
S8	31 Oct 2017	Animal Life	None
S8	31 Oct 2017	Floatables	None
S8	31 Oct 2017	Water Color	Green
S8	31 Oct 2017	Current Direction	N
S8	31 Oct 2017	Water Temp (C)	16.2
S8	31 Oct 2017	Wave Height Low (ft)	2
S8	31 Oct 2017	High Tide (ft)	5
S8	31 Oct 2017	High Tide Time	716
S8	31 Oct 2017	Low Tide (ft)	1.2
S8	31 Oct 2017	Low Tide Time	1329
S8	31 Oct 2017	Comments	Kelp; 1 Person; Water clear
S9	03 Oct 2017	Arrive Time	1213
S9	03 Oct 2017	Weather	Partly Cloudy
S9	03 Oct 2017	Wind Speed (kts)	5.8
S9	03 Oct 2017	Wind Dir	W
S9	03 Oct 2017	Animal Life	None
S9	03 Oct 2017	Floatables	None
S9	03 Oct 2017	Water Color	Green
S9	03 Oct 2017	Current Direction	N
S9	03 Oct 2017	Water Temp (C)	15.9
S9	03 Oct 2017	Wave Height Low (ft)	2
S9	03 Oct 2017	High Tide (ft)	5
S9	03 Oct 2017	High Tide Time	824
S9	03 Oct 2017	Low Tide (ft)	1
S9	03 Oct 2017	Low Tide Time	1424
S9	03 Oct 2017	Comments	Kelp; Seagrass; 1 Jogger; 7 Persons; 2 Surfers; 1 Swimmer; Water clear
S9	10 Oct 2017	Arrive Time	1224
S9	10 Oct 2017	Weather	Sunny
S9	10 Oct 2017	Wind Speed (kts)	6.2
S9	10 Oct 2017	Wind Dir	N
S9	10 Oct 2017	Animal Life	None
S9	10 Oct 2017	Floatables	None
S9	10 Oct 2017	Water Color	Green

Station	Date	Parameter	Value
S9	10 Oct 2017	Current Direction	N
S9	10 Oct 2017	Water Temp (C)	15.2
S9	10 Oct 2017	Wave Height Low (ft)	2
S9	10 Oct 2017	High Tide (ft)	5.4
S9	10 Oct 2017	High Tide Time	1239
S9	10 Oct 2017	Low Tide (ft)	2.2
S9	10 Oct 2017	Low Tide Time	622
S9	10 Oct 2017	Comments	Kelp; Seagrass; 25 Persons; Water clear
S9	17 Oct 2017	Arrive Time	1222
S9	17 Oct 2017	Weather	Sunny
S9	17 Oct 2017	Wind Speed (kts)	3.4
S9	17 Oct 2017	Wind Dir	W
S9	17 Oct 2017	Animal Life	None
S9	17 Oct 2017	Floatables	None
S9	17 Oct 2017	Water Color	Green
S9	17 Oct 2017	Current Direction	N
S9	17 Oct 2017	Water Temp (C)	16.9
S9	17 Oct 2017	Wave Height Low (ft)	2
S9	17 Oct 2017	High Tide (ft)	5.5
S9	17 Oct 2017	High Tide Time	821
S9	17 Oct 2017	Low Tide (ft)	0.5
S9	17 Oct 2017	Low Tide Time	1436
S9	17 Oct 2017	Comments	Kelp; Seagrass; 18 Persons; 4 Surfers; 1 Boat; 1 Swimmer; Water clear
S9	24 Oct 2017	Arrive Time	1320
S9	24 Oct 2017	Weather	Sunny
S9	24 Oct 2017	Wind Speed (kts)	3.8
S9	24 Oct 2017	Wind Dir	NW
S9	24 Oct 2017	Animal Life	None
S9	24 Oct 2017	Floatables	None
S9	24 Oct 2017	Water Color	Green
S9	24 Oct 2017	Current Direction	N
S9	24 Oct 2017	Water Temp (C)	17.3
S9	24 Oct 2017	Wave Height Low (ft)	3
S9	24 Oct 2017	High Tide (ft)	4.9
S9	24 Oct 2017	High Tide Time	1136
S9	24 Oct 2017	Low Tide (ft)	0.8
S9	24 Oct 2017	Low Tide Time	1914
S9	24 Oct 2017	Comments	Kelp; Seagrass; 3 Persons; Water clear
S9	31 Oct 2017	Arrive Time	1322
S9	31 Oct 2017	Weather	Cloudy
S9	31 Oct 2017	Wind Speed (kts)	4.3
S9	31 Oct 2017	Wind Dir	NW
S9	31 Oct 2017	Animal Life	None
S9	31 Oct 2017	Floatables	None
S9	31 Oct 2017	Water Color	Green
S9	31 Oct 2017	Current Direction	N
S9	31 Oct 2017	Water Temp (C)	16
S9	31 Oct 2017	Wave Height Low (ft)	1
S9	31 Oct 2017	High Tide (ft)	4.7
S9	31 Oct 2017	High Tide Time	1916
S9	31 Oct 2017	Low Tide (ft)	1.2

Station	Date	Parameter	Value
S9	31 Oct 2017	Low Tide Time	1329
S9	31 Oct 2017	Comments	5 Persons; Water clear
S10	03 Oct 2017	Arrive Time	848
S10	03 Oct 2017	Weather	Cloudy
S10	03 Oct 2017	Wind Speed (kts)	4.4
S10	03 Oct 2017	Wind Dir	W
S10	03 Oct 2017	Animal Life	None
S10	03 Oct 2017	Floatables	None
S10	03 Oct 2017	Water Color	Green
S10	03 Oct 2017	Current Direction	N
S10	03 Oct 2017	Water Temp (C)	15.6
S10	03 Oct 2017	Wave Height Low (ft)	2
S10	03 Oct 2017	High Tide (ft)	5
S10	03 Oct 2017	High Tide Time	824
S10	03 Oct 2017	Low Tide (ft)	1
S10	03 Oct 2017	Low Tide Time	1424
S10	03 Oct 2017	Comments	Kelp; Seagrass; Water clear
S10	10 Oct 2017	Arrive Time	837
S10	10 Oct 2017	Weather	Partly Cloudy
S10	10 Oct 2017	Wind Speed (kts)	3.1
S10	10 Oct 2017	Wind Dir	S
S10	10 Oct 2017	Animal Life	None
S10	10 Oct 2017	Floatables	None
S10	10 Oct 2017	Water Color	Green
S10	10 Oct 2017	Current Direction	N
S10	10 Oct 2017	Water Temp (C)	15.5
S10	10 Oct 2017	Wave Height Low (ft)	2
S10	10 Oct 2017	High Tide (ft)	5.4
S10	10 Oct 2017	High Tide Time	1239
S10	10 Oct 2017	Low Tide (ft)	2.2
S10	10 Oct 2017	Low Tide Time	622
S10	10 Oct 2017	Comments	Kelp; Seagrass; Water clear
S10	17 Oct 2017	Arrive Time	850
S10	17 Oct 2017	Weather	Sunny
S10	17 Oct 2017	Wind Speed (kts)	4.2
S10	17 Oct 2017	Wind Dir	E
S10	17 Oct 2017	Animal Life	None
S10	17 Oct 2017	Floatables	None
S10	17 Oct 2017	Water Color	Green
S10	17 Oct 2017	Current Direction	N
S10	17 Oct 2017	Water Temp (C)	15.6
S10	17 Oct 2017	Wave Height Low (ft)	3
S10	17 Oct 2017	High Tide (ft)	5.5
S10	17 Oct 2017	High Tide Time	821
S10	17 Oct 2017	Low Tide (ft)	0.5
S10	17 Oct 2017	Low Tide Time	1436
S10	17 Oct 2017	Comments	Kelp; Seagrass; Water clear
S10	19 Oct 2017	Arrive Time	1104
S10	19 Oct 2017	Weather	Sunny
S10	19 Oct 2017	Wind Speed (kts)	7.5
S10	19 Oct 2017	Wind Dir	SW

Station	Date	Parameter	Value
S10	19 Oct 2017	Animal Life	None
S10	19 Oct 2017	Floatables	None
S10	19 Oct 2017	Water Color	Green
S10	19 Oct 2017	Current Direction	N
S10	19 Oct 2017	Water Temp (C)	18.3
S10	19 Oct 2017	Wave Height Low (ft)	3
S10	19 Oct 2017	High Tide (ft)	5.8
S10	19 Oct 2017	High Tide Time	917
S10	19 Oct 2017	Low Tide (ft)	0.1
S10	19 Oct 2017	Low Tide Time	1549
S10	19 Oct 2017	Comments	Kelp; Seagrass; Water clear
S10	24 Oct 2017	Arrive Time	910
S10	24 Oct 2017	Weather	Sunny
S10	24 Oct 2017	Wind Speed (kts)	3.4
S10	24 Oct 2017	Wind Dir	NW
S10	24 Oct 2017	Animal Life	None
S10	24 Oct 2017	Floatables	None
S10	24 Oct 2017	Water Color	Green
S10	24 Oct 2017	Current Direction	N
S10	24 Oct 2017	Water Temp (C)	13.6
S10	24 Oct 2017	Wave Height Low (ft)	3
S10	24 Oct 2017	High Tide (ft)	4.9
S10	24 Oct 2017	High Tide Time	1136
S10	24 Oct 2017	Low Tide (ft)	2.5
S10	24 Oct 2017	Low Tide Time	524
S10	24 Oct 2017	Comments	Kelp; Seagrass; Water clear
S10	31 Oct 2017	Arrive Time	908
S10	31 Oct 2017	Weather	Cloudy
S10	31 Oct 2017	Wind Speed (kts)	2.5
S10	31 Oct 2017	Wind Dir	S
S10	31 Oct 2017	Animal Life	None
S10	31 Oct 2017	Floatables	None
S10	31 Oct 2017	Water Color	Green
S10	31 Oct 2017	Current Direction	N
S10	31 Oct 2017	Water Temp (C)	17.1
S10	31 Oct 2017	Wave Height Low (ft)	2
S10	31 Oct 2017	High Tide (ft)	5
S10	31 Oct 2017	High Tide Time	716
S10	31 Oct 2017	Low Tide (ft)	1.2
S10	31 Oct 2017	Low Tide Time	1329
S10	31 Oct 2017	Comments	Kelp; Seagrass; Water clear
S11	03 Oct 2017	Arrive Time	1009
S11	03 Oct 2017	Weather	Cloudy
S11	03 Oct 2017	Wind Speed (kts)	7.3
S11	03 Oct 2017	Wind Dir	W
S11	03 Oct 2017	Animal Life	None
S11	03 Oct 2017	Floatables	None
S11	03 Oct 2017	Water Color	Green
S11	03 Oct 2017	Current Direction	N
S11	03 Oct 2017	Water Temp (C)	15.7
S11	03 Oct 2017	Wave Height Low (ft)	3
S11	03 Oct 2017	High Tide (ft)	5

Station	Date	Parameter	Value
S11	03 Oct 2017	High Tide Time	824
S11	03 Oct 2017	Low Tide (ft)	1
S11	03 Oct 2017	Low Tide Time	1424
S11	03 Oct 2017	Comments	Kelp; Seagrass; Water clear
S11	10 Oct 2017	Arrive Time	1018
S11	10 Oct 2017	Weather	Foggy
S11	10 Oct 2017	Wind Speed (kts)	4.2
S11	10 Oct 2017	Wind Dir	N
S11	10 Oct 2017	Animal Life	None
S11	10 Oct 2017	Floatables	None
S11	10 Oct 2017	Water Color	Green
S11	10 Oct 2017	Current Direction	N
S11	10 Oct 2017	Water Temp (C)	15.7
S11	10 Oct 2017	Wave Height Low (ft)	2
S11	10 Oct 2017	High Tide (ft)	5.4
S11	10 Oct 2017	High Tide Time	1239
S11	10 Oct 2017	Low Tide (ft)	2.2
S11	10 Oct 2017	Low Tide Time	622
S11	10 Oct 2017	Comments	Kelp; Seagrass; Water clear
S11	17 Oct 2017	Arrive Time	1022
S11	17 Oct 2017	Weather	Sunny
S11	17 Oct 2017	Wind Speed (kts)	3.7
S11	17 Oct 2017	Wind Dir	W
S11	17 Oct 2017	Animal Life	None
S11	17 Oct 2017	Floatables	None
S11	17 Oct 2017	Water Color	Green
S11	17 Oct 2017	Current Direction	N
S11	17 Oct 2017	Water Temp (C)	17.6
S11	17 Oct 2017	Wave Height Low (ft)	3
S11	17 Oct 2017	High Tide (ft)	5.5
S11	17 Oct 2017	High Tide Time	821
S11	17 Oct 2017	Low Tide (ft)	0.5
S11	17 Oct 2017	Low Tide Time	1436
S11	17 Oct 2017	Comments	Kelp; Seagrass; Water clear
S11	24 Oct 2017	Arrive Time	1040
S11	24 Oct 2017	Weather	Sunny
S11	24 Oct 2017	Wind Speed (kts)	4.1
S11	24 Oct 2017	Wind Dir	NW
S11	24 Oct 2017	Animal Life	None
S11	24 Oct 2017	Floatables	None
S11	24 Oct 2017	Water Color	Green
S11	24 Oct 2017	Current Direction	N
S11	24 Oct 2017	Water Temp (C)	15.1
S11	24 Oct 2017	Wave Height Low (ft)	4
S11	24 Oct 2017	High Tide (ft)	4.9
S11	24 Oct 2017	High Tide Time	1136
S11	24 Oct 2017	Low Tide (ft)	2.5
S11	24 Oct 2017	Low Tide Time	524
S11	24 Oct 2017	Comments	Kelp; Seagrass; 2 Persons; Water clear
S11	31 Oct 2017	Arrive Time	1032
S11	31 Oct 2017	Weather	Cloudy

Station	Date	Parameter	Value
S11	31 Oct 2017	Wind Speed (kts)	6.6
S11	31 Oct 2017	Wind Dir	S
S11	31 Oct 2017	Animal Life	None
S11	31 Oct 2017	Floatables	None
S11	31 Oct 2017	Water Color	Green
S11	31 Oct 2017	Current Direction	N
S11	31 Oct 2017	Water Temp (C)	16.3
S11	31 Oct 2017	Wave Height Low (ft)	3
S11	31 Oct 2017	High Tide (ft)	5
S11	31 Oct 2017	High Tide Time	716
S11	31 Oct 2017	Low Tide (ft)	1.2
S11	31 Oct 2017	Low Tide Time	1329
S11	31 Oct 2017	Comments	Water clear
S12	03 Oct 2017	Arrive Time	951
S12	03 Oct 2017	Weather	Cloudy
S12	03 Oct 2017	Wind Speed (kts)	5.1
S12	03 Oct 2017	Wind Dir	W
S12	03 Oct 2017	Animal Life	2 Dogs
S12	03 Oct 2017	Floatables	None
S12	03 Oct 2017	Water Color	Green
S12	03 Oct 2017	Current Direction	N
S12	03 Oct 2017	Water Temp (C)	15.8
S12	03 Oct 2017	Wave Height Low (ft)	3
S12	03 Oct 2017	High Tide (ft)	5
S12	03 Oct 2017	High Tide Time	824
S12	03 Oct 2017	Low Tide (ft)	1
S12	03 Oct 2017	Low Tide Time	1424
S12	03 Oct 2017	Comments	Kelp; Seagrass; 1 Jogger; 2 Persons; Water clear
S12	10 Oct 2017	Arrive Time	956
S12	10 Oct 2017	Weather	Foggy
S12	10 Oct 2017	Wind Speed (kts)	4.2
S12	10 Oct 2017	Wind Dir	S
S12	10 Oct 2017	Animal Life	None
S12	10 Oct 2017	Floatables	None
S12	10 Oct 2017	Water Color	Green
S12	10 Oct 2017	Current Direction	N
S12	10 Oct 2017	Water Temp (C)	15.2
S12	10 Oct 2017	Wave Height Low (ft)	2
S12	10 Oct 2017	High Tide (ft)	5.4
S12	10 Oct 2017	High Tide Time	1239
S12	10 Oct 2017	Low Tide (ft)	2.2
S12	10 Oct 2017	Low Tide Time	622
S12	10 Oct 2017	Comments	Kelp; Seagrass; 3 Persons; Water clear
S12	17 Oct 2017	Arrive Time	1005
S12	17 Oct 2017	Weather	Sunny
S12	17 Oct 2017	Wind Speed (kts)	2.7
S12	17 Oct 2017	Wind Dir	W
S12	17 Oct 2017	Animal Life	None
S12	17 Oct 2017	Floatables	None
S12	17 Oct 2017	Water Color	Green
S12	17 Oct 2017	Current Direction	N
S12	17 Oct 2017	Water Temp (C)	16.6

Station	Date	Parameter	Value
S12	17 Oct 2017	Wave Height Low (ft)	2
S12	17 Oct 2017	High Tide (ft)	5.5
S12	17 Oct 2017	High Tide Time	821
S12	17 Oct 2017	Low Tide (ft)	0.5
S12	17 Oct 2017	Low Tide Time	1436
S12	17 Oct 2017	Comments	Kelp; Seagrass; Water clear
S12	24 Oct 2017	Arrive Time	1023
S12	24 Oct 2017	Weather	Sunny
S12	24 Oct 2017	Wind Speed (kts)	3.6
S12	24 Oct 2017	Wind Dir	NW
S12	24 Oct 2017	Animal Life	None
S12	24 Oct 2017	Floatables	None
S12	24 Oct 2017	Water Color	Green
S12	24 Oct 2017	Current Direction	N
S12	24 Oct 2017	Water Temp (C)	13.2
S12	24 Oct 2017	Wave Height Low (ft)	4
S12	24 Oct 2017	High Tide (ft)	4.9
S12	24 Oct 2017	High Tide Time	1136
S12	24 Oct 2017	Low Tide (ft)	2.5
S12	24 Oct 2017	Low Tide Time	524
S12	24 Oct 2017	Comments	Kelp; Seagrass; 1 Jogger; 6 Persons; 2 Surfers; Water clear
S12	31 Oct 2017	Arrive Time	1016
S12	31 Oct 2017	Weather	Cloudy
S12	31 Oct 2017	Wind Speed (kts)	6
S12	31 Oct 2017	Wind Dir	S
S12	31 Oct 2017	Animal Life	2 Dogs
S12	31 Oct 2017	Floatables	None
S12	31 Oct 2017	Water Color	Green
S12	31 Oct 2017	Current Direction	N
S12	31 Oct 2017	Water Temp (C)	16.2
S12	31 Oct 2017	Wave Height Low (ft)	2
S12	31 Oct 2017	High Tide (ft)	5
S12	31 Oct 2017	High Tide Time	716
S12	31 Oct 2017	Low Tide (ft)	1.2
S12	31 Oct 2017	Low Tide Time	1329
S12	31 Oct 2017	Comments	Kelp; Seagrass; 2 Persons; Water clear

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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 Oct 2017	7	6	4	5	8	4	5
02 Oct 2017	9	6	4	4	9	4	4
03 Oct 2017	9	6	4	4	9	4	4
04 Oct 2017	9	6	4	4	9	4	4
05 Oct 2017	7	5	2	3	9	3	3
06 Oct 2017	7	5	2	3	9	3	3
07 Oct 2017	7	5	2	3	9	3	3
08 Oct 2017	7	5	2	3	9	3	3
09 Oct 2017	7	5	2	3	9	3	3
10 Oct 2017	9	5	3	3	10	3	3
11 Oct 2017	9	5	3	4	9	3	4
12 Oct 2017	9	5	3	4	9	3	4
13 Oct 2017	9	5	3	4	9	3	4
14 Oct 2017	9	5	3	4	9	3	4
15 Oct 2017	9	5	3	4	9	3	4
16 Oct 2017	9*	5*	4*	5*	9*	3*	3*
17 Oct 2017	7	4	3	4	7	3	4
18 Oct 2017	7	4	3	4	7	3	4
19 Oct 2017	7	4	3	4	7	3	4
20 Oct 2017	9*	5*	4*	3*	5*	2*	5*
21 Oct 2017	9*	5*	4*	3*	5*	2*	5*
22 Oct 2017	9*	5*	4*	3*	5*	2*	5*
23 Oct 2017	9*	5*	4*	3*	5*	2*	5*
24 Oct 2017	9*	5*	4*	3*	5*	2*	5*
25 Oct 2017	9*	5*	4*	3*	5*	2*	5*
26 Oct 2017	37	6	3	3	4	2	11
27 Oct 2017	37	6	3	3	4	2	11
28 Oct 2017	78*	9*	4*	3*	5*	2*	17*
29 Oct 2017	78*	9*	4*	3*	5*	2*	17*
30 Oct 2017	40	8	4	3	4	2	11
31 Oct 2017	40	8	4	3	4	2	11

* 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 Oct 2017	2	2	2	2	2	2	2
02 Oct 2017	2	2	2	2	2	2	2
03 Oct 2017	2	2	2	2	2	2	2
04 Oct 2017	2	2	2	2	2	2	2
05 Oct 2017	2	2	2	2	2	2	2
06 Oct 2017	2	2	2	2	2	2	2
07 Oct 2017	2	2	2	2	2	2	2
08 Oct 2017	2	2	2	2	2	2	2
09 Oct 2017	2	2	2	2	2	2	2
10 Oct 2017	2	2	2	2	2	2	2
11 Oct 2017	2	2	2	2	2	2	2
12 Oct 2017	2	2	2	2	2	2	2
13 Oct 2017	2	2	2	2	2	2	2
14 Oct 2017	2	2	2	2	2	2	2
15 Oct 2017	2	2	2	2	2	2	2
16 Oct 2017	2*	2*	2*	2*	2*	2*	2*
17 Oct 2017	2	2	2	2	2	2	2
18 Oct 2017	2	2	2	2	2	2	2
19 Oct 2017	2	2	2	2	2	2	2
20 Oct 2017	2*	2*	2*	2*	2*	2*	2*
21 Oct 2017	2*	2*	2*	2*	2*	2*	2*
22 Oct 2017	2*	2*	2*	2*	2*	2*	2*
23 Oct 2017	2*	2*	2*	2*	2*	2*	2*
24 Oct 2017	2*	2*	2*	2*	2*	2*	2*
25 Oct 2017	2*	2*	2*	2*	2*	2*	2*
26 Oct 2017	6	2	2	2	2	2	3
27 Oct 2017	6	2	2	2	2	2	3
28 Oct 2017	8*	2*	2*	2*	2*	2*	3*
29 Oct 2017	8*	2*	2*	2*	2*	2*	3*
30 Oct 2017	6	2	2	2	2	2	3
31 Oct 2017	6	2	2	2	2	2	3

* 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 Oct 2017	3	3	3	2	2	2	3
02 Oct 2017	4	3	3	2	2	2	3
03 Oct 2017	4	3	3	2	2	2	3
04 Oct 2017	4	3	3	2	2	2	3
05 Oct 2017	3	2	2	2	2	2	2
06 Oct 2017	3	2	2	2	2	2	2
07 Oct 2017	3	2	2	2	2	2	2
08 Oct 2017	3	2	2	2	2	2	2
09 Oct 2017	3	2	2	2	2	2	2
10 Oct 2017	4	2	2	2	2	2	2
11 Oct 2017	5	2	2	2	2	2	2
12 Oct 2017	5	2	2	2	2	2	2
13 Oct 2017	5	2	2	2	2	2	2
14 Oct 2017	5	2	2	2	2	2	2
15 Oct 2017	5	2	2	2	2	2	2
16 Oct 2017	6*	2*	2*	2*	2*	2*	3*
17 Oct 2017	5	2	2	2	2	2	2
18 Oct 2017	5	2	2	2	2	2	2
19 Oct 2017	5	2	2	2	2	2	2
20 Oct 2017	6*	2*	2*	2*	2*	2*	3*
21 Oct 2017	6*	2*	2*	2*	2*	2*	3*
22 Oct 2017	6*	2*	2*	2*	2*	2*	3*
23 Oct 2017	6*	2*	2*	2*	2*	2*	3*
24 Oct 2017	6*	2*	2*	2*	2*	2*	3*
25 Oct 2017	6*	2*	2*	2*	2*	2*	3*
26 Oct 2017	18	2	2	2	2	2	5
27 Oct 2017	18	2	2	2	2	2	5
28 Oct 2017	32*	2*	2*	2*	2*	2*	6*
29 Oct 2017	32*	2*	2*	2*	2*	2*	6*
30 Oct 2017	18	2	2	2	2	2	5
31 Oct 2017	18	2	2	2	2	2	5

* 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
02 Oct 2017	IC	IC	IC	IC	IC	IC	IC
10 Oct 2017	IC	IC	IC	IC	IC	IC	IC
17 Oct 2017	IC	IC	IC	IC	IC	IC	IC
26 Oct 2017	E	IC	IC	IC	IC	IC	IC
30 Oct 2017	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

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
02 Oct 2017	IC	IC	IC	IC	IC	IC	IC
10 Oct 2017	IC	IC	IC	IC	IC	IC	IC
17 Oct 2017	IC	IC	IC	IC	IC	IC	IC
26 Oct 2017	E	IC	IC	IC	IC	IC	IC
30 Oct 2017	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

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
02 Oct 2017	IC	IC	IC	IC	IC	IC	IC
10 Oct 2017	IC	IC	IC	IC	IC	IC	IC
17 Oct 2017	IC	IC	IC	IC	IC	IC	IC
26 Oct 2017	E	IC	IC	IC	IC	IC	IC
30 Oct 2017	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

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
02 Oct 2017	IC	IC	IC	IC	IC	IC	IC
10 Oct 2017	IC	IC	IC	IC	IC	IC	IC
17 Oct 2017	IC	IC	IC	IC	IC	IC	IC
26 Oct 2017	E	IC	IC	IC	IC	IC	IC
30 Oct 2017	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance
E = Exceedance
ns = not sampled
ND = no data

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	02 Oct 2017	1112	2	40e	2e	16e	0.05	19.8	76.64	7.8	33.36	8.2	ns	ns
I19	02 Oct 2017	1112	6	80e	<2	32e	0.02	19.8	77.88	8.0	33.39	8.2	ns	ns
I19	02 Oct 2017	1112	11	20e	<2	20e	0.10	19.8	77.79	8.0	33.39	8.2	ns	ns
I19	10 Oct 2017	1035	2	10e	<2	<2	0.20	19.8	73.95	7.9	33.38	8.2	ns	ns
I19	10 Oct 2017	1035	6	40e	<2	8e	0.05	19.5	65.08	7.6	33.40	8.2	ns	ns
I19	10 Oct 2017	1035	11	60e	2e	26e	0.03	17.7	56.31	7.1	33.40	8.1	ns	ns
I19	17 Oct 2017	1047	2	<2	<2	<2	1.00	17.9	77.17	8.0	33.39	8.1	ns	ns
I19	17 Oct 2017	1047	6	2e	<2	<2	1.00	17.7	71.97	7.7	33.38	8.1	ns	ns
I19	17 Oct 2017	1047	11	2e	<2	<2	1.00	17.4	67.13	7.3	33.38	8.1	ns	ns
I19	26 Oct 2017	1102	2	12000	320e	1400e	0.03	16.2	58.50	8.4	33.28	8.1	ns	ns
I19	26 Oct 2017	1102	6	15000	500	2600e	0.03	16.0	64.05	8.1	33.32	8.1	ns	ns
I19	26 Oct 2017	1102	11	5400	980	1600e	0.18	15.7	63.91	7.8	33.31	8.0	ns	ns
I19	30 Oct 2017	1057	2	<2	<2	<2	1.00	18.1	75.96	8.0	33.38	8.1	ns	ns
I19	30 Oct 2017	1057	6	<2	<2	<2	1.00	18.1	80.22	8.0	33.38	8.1	ns	ns
I19	30 Oct 2017	1057	11	4e	<2	<2	0.50	18.1	78.51	8.0	33.39	8.1	ns	ns
I24	02 Oct 2017	1136	2	<2	<2	<2	1.00	20.0	83.99	8.1	33.43	8.2	ns	ns
I24	02 Oct 2017	1136	6	<2	<2	<2	1.00	19.8	82.66	8.2	33.41	8.2	ns	ns
I24	02 Oct 2017	1136	11	18e	<2	2e	0.11	19.7	76.09	8.2	33.41	8.2	ns	ns
I24	10 Oct 2017	1057	2	<2	<2	<2	1.00	20.0	74.08	8.2	33.40	8.2	ns	ns
I24	10 Oct 2017	1057	6	<20	<2	<2	0.10	19.8	76.01	8.1	33.40	8.2	ns	ns
I24	10 Oct 2017	1057	11	<20	<2	4e	0.10	18.4	73.13	7.2	33.47	8.2	ns	ns
I24	17 Oct 2017	1109	2	<2	<2	<2	1.00	19.3	84.02	7.9	33.47	8.2	ns	ns
I24	17 Oct 2017	1109	6	2e	2e	<2	1.00	17.8	71.23	7.3	33.39	8.1	ns	ns
I24	17 Oct 2017	1109	11	4e	<2	<2	0.50	16.1	61.76	6.5	33.35	8.0	ns	ns
I24	26 Oct 2017	1126	2	2e	<2	<2	1.00	16.6	63.51	8.2	33.39	8.1	ns	ns
I24	26 Oct 2017	1126	6	48	<2	4e	0.04	15.7	67.70	7.8	33.38	8.1	ns	ns
I24	26 Oct 2017	1126	11	8e	2e	<2	0.25	15.1	32.50	7.1	33.36	8.0	ns	ns
I24	30 Oct 2017	1119	2	<2	<2	<2	1.00	18.1	82.09	8.2	33.39	8.2	ns	ns
I24	30 Oct 2017	1119	6	<2	<2	<2	1.00	18.0	81.32	8.1	33.39	8.2	ns	ns
I24	30 Oct 2017	1119	11	12e	<2	4e	0.17	17.0	67.90	8.1	33.36	8.1	ns	ns
I25	02 Oct 2017	1143	2	<2	<2	<2	1.00	20.1	82.79	8.1	33.43	8.2	ns	ns
I25	02 Oct 2017	1143	6	4e	<2	2e	0.50	19.7	78.93	8.3	33.40	8.2	ns	ns
I25	02 Oct 2017	1143	9	10e	<2	2e	0.20	19.7	78.19	8.3	33.40	8.2	ns	ns
I25	10 Oct 2017	1105	2	<2	<2	<2	1.00	20.0	72.83	8.4	33.40	8.2	ns	ns
I25	10 Oct 2017	1105	6	<2	<2	<2	1.00	19.8	73.74	8.2	33.41	8.2	ns	ns

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I25	10 Oct 2017	1105	9	<20	<2	4e	0.10	19.2	70.85	7.3	33.40	8.2	ns	ns
I25	17 Oct 2017	1117	2	<2	<2	<2	1.00	19.2	84.33	7.9	33.46	8.2	ns	ns
I25	17 Oct 2017	1117	6	2e	<2	<2	1.00	17.8	82.74	7.8	33.38	8.2	ns	ns
I25	17 Oct 2017	1117	9	<2	<2	<2	1.00	16.9	77.30	6.8	33.37	8.1	ns	ns
I25	26 Oct 2017	1132	2	<2	<2	<2	1.00	17.4	72.14	8.3	33.39	8.1	ns	ns
I25	26 Oct 2017	1132	6	<2	<2	<2	1.00	15.7	69.12	8.0	33.41	8.1	ns	ns
I25	26 Oct 2017	1132	9	<2	<2	<2	1.00	15.2	60.57	7.5	33.36	8.1	ns	ns
I25	30 Oct 2017	1127	2	<2	<2	<2	1.00	18.1	83.41	8.2	33.39	8.2	ns	ns
I25	30 Oct 2017	1127	6	6e	<2	<2	0.33	18.0	79.34	8.1	33.39	8.2	ns	ns
I25	30 Oct 2017	1127	9	2e	<2	<2	1.00	17.4	74.38	8.1	33.35	8.1	ns	ns
I26	02 Oct 2017	1153	2	<2	<2	<2	1.00	20.0	81.34	8.0	33.42	8.2	ns	ns
I26	02 Oct 2017	1153	6	4e	<2	<2	0.50	20.0	81.99	8.0	33.42	8.2	ns	ns
I26	02 Oct 2017	1153	9	4e	<2	<2	0.50	19.6	80.16	8.0	33.41	8.2	ns	ns
I26	10 Oct 2017	1116	2	<2	2e	<2	1.00	20.1	71.75	7.7	33.42	8.2	ns	ns
I26	10 Oct 2017	1116	6	<2	<2	<2	1.00	19.1	74.38	7.8	33.41	8.2	ns	ns
I26	10 Oct 2017	1116	9	<20	<2	<2	0.10	18.7	74.32	7.6	33.37	8.2	ns	ns
I26	17 Oct 2017	1129	2	<2	<2	<2	1.00	19.3	84.79	8.0	33.52	8.2	ns	ns
I26	17 Oct 2017	1129	6	<2	<2	2e	1.00	18.0	81.22	8.1	33.39	8.2	ns	ns
I26	17 Oct 2017	1129	9	2e	<2	<2	1.00	16.7	77.04	7.3	33.33	8.1	ns	ns
I26	26 Oct 2017	1141	2	<2	<2	<2	1.00	16.6	64.53	8.3	33.39	8.1	ns	ns
I26	26 Oct 2017	1141	6	<2	<2	<2	1.00	15.6	71.91	7.9	33.36	8.1	ns	ns
I26	26 Oct 2017	1141	9	<2	<2	<2	1.00	15.1	80.74	7.9	33.35	8.1	ns	ns
I26	30 Oct 2017	1136	2	<2	<2	<2	1.00	18.1	80.30	8.2	33.39	8.2	ns	ns
I26	30 Oct 2017	1136	6	2e	<2	<2	1.00	17.9	79.02	8.1	33.39	8.2	ns	ns
I26	30 Oct 2017	1136	9	<2	<2	2e	1.00	17.6	68.53	7.8	33.40	8.1	ns	ns
I32	02 Oct 2017	1208	2	<2	<2	<2	1.00	20.1	77.06	7.9	33.42	8.1	ns	ns
I32	02 Oct 2017	1208	6	<20	<2	<2	0.10	19.9	73.97	8.1	33.41	8.1	ns	ns
I32	02 Oct 2017	1208	9	<20	<2	<2	0.10	19.7	73.08	8.1	33.39	8.1	ns	ns
I32	10 Oct 2017	1128	2	<2	<2	<2	1.00	20.1	71.38	7.9	33.45	8.2	ns	ns
I32	10 Oct 2017	1128	6	<20	<2	<2	0.10	18.9	57.68	7.5	33.42	8.2	ns	ns
I32	10 Oct 2017	1128	9	<20	<2	<2	0.10	18.2	54.09	7.2	33.40	8.1	ns	ns
I32	17 Oct 2017	1142	2	2e	<2	<2	1.00	19.7	82.06	7.9	33.47	8.2	ns	ns
I32	17 Oct 2017	1142	6	2e	2e	2e	1.00	18.8	76.63	8.1	33.42	8.2	ns	ns
I32	17 Oct 2017	1142	9	<2	<2	<2	1.00	18.0	77.15	7.7	33.46	8.2	ns	ns
I32	26 Oct 2017	1153	2	<2	<2	<2	1.00	17.7	78.93	8.0	33.46	8.1	ns	ns
I32	26 Oct 2017	1153	6	<2	<2	<2	1.00	16.6	73.70	8.1	33.41	8.1	ns	ns
I32	26 Oct 2017	1153	9	<2	<2	<2	1.00	15.2	72.63	7.8	33.40	8.1	ns	ns
I32	30 Oct 2017	1149	2	<2	<2	<2	1.00	18.2	84.75	8.2	33.40	8.2	ns	ns
I32	30 Oct 2017	1149	6	<2	<2	<2	1.00	18.1	83.89	8.2	33.40	8.2	ns	ns
I32	30 Oct 2017	1149	9	<2	<2	<2	1.00	18.0	75.82	8.1	33.39	8.2	ns	ns
I39	02 Oct 2017	1045	2	<2	<2	<2	1.00	19.6	84.97	8.2	33.42	8.2	ns	ns

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I39	02 Oct 2017	1045	12	<2	<2	<2	1.00	18.0	81.68	8.5	33.38	8.2	ns	ns
I39	02 Oct 2017	1045	18	4e	<2	<2	0.50	16.2	80.67	8.0	33.35	8.2	ns	ns
I39	10 Oct 2017	1012	2	2e	<2	<2	1.00	19.9	79.67	8.3	33.41	8.2	ns	ns
I39	10 Oct 2017	1012	12	<2	<2	<2	1.00	19.4	83.61	8.2	33.41	8.2	ns	ns
I39	10 Oct 2017	1012	18	<2	<2	<2	1.00	18.4	81.46	7.6	33.40	8.2	ns	ns
I39	17 Oct 2017	1024	2	<2	<2	<2	1.00	19.8	85.43	8.0	33.47	8.2	ns	ns
I39	17 Oct 2017	1024	12	<2	<2	<2	1.00	15.4	83.81	7.4	33.35	8.1	ns	ns
I39	17 Oct 2017	1024	18	<2	<2	<2	1.00	15.2	83.34	7.0	33.36	8.1	ns	ns
I39	26 Oct 2017	1040	2	<2	<2	<2	1.00	18.0	81.41	8.1	33.43	8.1	ns	ns
I39	26 Oct 2017	1040	12	<2	<2	<2	1.00	16.4	85.61	8.1	33.38	8.1	ns	ns
I39	26 Oct 2017	1040	18	4e	<2	<2	0.50	14.9	84.81	7.7	33.35	8.1	ns	ns
I39	30 Oct 2017	1034	2	<2	<2	<2	1.00	18.2	84.40	8.3	33.39	8.2	ns	ns
I39	30 Oct 2017	1034	12	<2	<2	<2	1.00	17.3	87.15	8.3	33.38	8.2	ns	ns
I39	30 Oct 2017	1034	18	4e	<2	<2	0.50	16.7	72.59	8.0	33.36	8.1	ns	ns
I40	02 Oct 2017	1125	2	<2	<2	<2	1.00	19.9	85.26	8.2	33.41	8.2	ns	ns
I40	02 Oct 2017	1125	6	<2	<2	2e	1.00	19.9	84.38	8.1	33.42	8.2	ns	ns
I40	02 Oct 2017	1125	9	<2	<2	<2	1.00	19.8	77.52	8.1	33.41	8.2	ns	ns
I40	10 Oct 2017	1048	2	<2	<2	<2	1.00	20.1	70.76	8.4	33.39	8.2	ns	ns
I40	10 Oct 2017	1048	6	18e	<2	2e	0.11	19.7	70.01	7.8	33.39	8.2	ns	ns
I40	10 Oct 2017	1048	9	20e	2e	14e	0.10	18.9	66.82	7.3	33.39	8.2	ns	ns
I40	17 Oct 2017	1100	2	<2	<2	<2	1.00	19.5	83.13	7.8	33.46	8.2	ns	ns
I40	17 Oct 2017	1100	6	20e	<2	<2	0.10	17.1	67.52	6.2	33.37	8.0	ns	ns
I40	17 Oct 2017	1100	9	<20	<2	<2	0.10	16.5	49.88	6.3	33.35	8.0	ns	ns
I40	26 Oct 2017	1118	2	20e	<2	8e	0.10	16.6	66.47	8.4	33.37	8.1	ns	ns
I40	26 Oct 2017	1118	6	440	18e	84	0.04	16.0	63.20	8.1	33.31	8.1	ns	ns
I40	26 Oct 2017	1118	9	260e	6e	44e	0.02	15.9	61.22	8.0	33.35	8.1	ns	ns
I40	30 Oct 2017	1109	2	<2	<2	<2	1.00	18.2	80.30	8.2	33.39	8.2	ns	ns
I40	30 Oct 2017	1109	6	<2	<2	<2	1.00	18.2	82.98	8.2	33.40	8.2	ns	ns
I40	30 Oct 2017	1109	9	<2	<2	<2	1.00	18.1	81.17	8.1	33.40	8.2	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	02 Oct 2017	Depth (m)	11
I19	02 Oct 2017	Arrive Time	1112
I19	02 Oct 2017	Depart Time	1115
I19	02 Oct 2017	Air Temp (C)	20
I19	02 Oct 2017	Weather	Partly Cloudy
I19	02 Oct 2017	Visibility (mi)	13
I19	02 Oct 2017	Wind Speed (kts)	9
I19	02 Oct 2017	Wind Dir	SW
I19	02 Oct 2017	Water Color	Green
I19	02 Oct 2017	Wave Ht Low (ft)	3
I19	02 Oct 2017	Wave Period (sec)	13
I19	02 Oct 2017	Sea State	Confused swell
I19	02 Oct 2017	High Tide (ft)	4.7
I19	02 Oct 2017	High Tide Time	759
I19	02 Oct 2017	Low Tide (ft)	1.5
I19	02 Oct 2017	Low Tide Time	1349
I19	02 Oct 2017	Comments	Kelp debris; Seagrass
I19	10 Oct 2017	Depth (m)	12
I19	10 Oct 2017	Arrive Time	1035
I19	10 Oct 2017	Depart Time	1039
I19	10 Oct 2017	Air Temp (C)	17
I19	10 Oct 2017	Weather	Fog
I19	10 Oct 2017	Visibility (mi)	3
I19	10 Oct 2017	Wind Speed (kts)	7
I19	10 Oct 2017	Wind Dir	NE
I19	10 Oct 2017	Water Color	Green
I19	10 Oct 2017	Wave Ht Low (ft)	3
I19	10 Oct 2017	Wave Period (sec)	9
I19	10 Oct 2017	Sea State	Calm
I19	10 Oct 2017	High Tide (ft)	5.4
I19	10 Oct 2017	High Tide Time	1239
I19	10 Oct 2017	Low Tide (ft)	2.2
I19	10 Oct 2017	Low Tide Time	622
I19	10 Oct 2017	Comments	
I19	17 Oct 2017	Depth (m)	12
I19	17 Oct 2017	Arrive Time	1047
I19	17 Oct 2017	Depart Time	1050
I19	17 Oct 2017	Air Temp (C)	21
I19	17 Oct 2017	Weather	Haze
I19	17 Oct 2017	Visibility (mi)	12
I19	17 Oct 2017	Wind Speed (kts)	4
I19	17 Oct 2017	Wind Dir	W
I19	17 Oct 2017	Water Color	Green
I19	17 Oct 2017	Wave Ht Low (ft)	2
I19	17 Oct 2017	Wave Period (sec)	16
I19	17 Oct 2017	Sea State	Calm
I19	17 Oct 2017	High Tide (ft)	5.5
I19	17 Oct 2017	High Tide Time	821
I19	17 Oct 2017	Low Tide (ft)	0.5

Station	Date	Parameter	Value
I19	17 Oct 2017	Low Tide Time	1436
I19	17 Oct 2017	Comments	
I19	26 Oct 2017	Depth (m)	12
I19	26 Oct 2017	Arrive Time	1102
I19	26 Oct 2017	Depart Time	1112
I19	26 Oct 2017	Air Temp (C)	20
I19	26 Oct 2017	Weather	Clear
I19	26 Oct 2017	Visibility (mi)	12
I19	26 Oct 2017	Wind Speed (kts)	5
I19	26 Oct 2017	Wind Dir	NE
I19	26 Oct 2017	Water Color	Green
I19	26 Oct 2017	Wave Ht Low (ft)	5
I19	26 Oct 2017	Wave Period (sec)	13
I19	26 Oct 2017	Sea State	Calm
I19	26 Oct 2017	High Tide (ft)	4.2
I19	26 Oct 2017	High Tide Time	1315
I19	26 Oct 2017	Low Tide (ft)	3.2
I19	26 Oct 2017	Low Tide Time	658
I19	26 Oct 2017	Comments	Sewage-like odor on station
I19	30 Oct 2017	Depth (m)	11
I19	30 Oct 2017	Arrive Time	1057
I19	30 Oct 2017	Depart Time	1102
I19	30 Oct 2017	Air Temp (C)	18
I19	30 Oct 2017	Weather	Overcast
I19	30 Oct 2017	Visibility (mi)	8
I19	30 Oct 2017	Wind Speed (kts)	9
I19	30 Oct 2017	Wind Dir	NW
I19	30 Oct 2017	Water Color	Greenish-Blue
I19	30 Oct 2017	Wave Ht Low (ft)	5
I19	30 Oct 2017	Wave Period (sec)	13
I19	30 Oct 2017	Sea State	Wind ripples
I19	30 Oct 2017	High Tide (ft)	4.6
I19	30 Oct 2017	High Tide Time	651
I19	30 Oct 2017	Low Tide (ft)	1.8
I19	30 Oct 2017	Low Tide Time	1251
I19	30 Oct 2017	Comments	
I24	02 Oct 2017	Depth (m)	10
I24	02 Oct 2017	Arrive Time	1136
I24	02 Oct 2017	Depart Time	1138
I24	02 Oct 2017	Air Temp (C)	20
I24	02 Oct 2017	Weather	Partly Cloudy
I24	02 Oct 2017	Visibility (mi)	13
I24	02 Oct 2017	Wind Speed (kts)	11
I24	02 Oct 2017	Wind Dir	E
I24	02 Oct 2017	Water Color	Bluish-Green
I24	02 Oct 2017	Wave Ht Low (ft)	3
I24	02 Oct 2017	Wave Period (sec)	13
I24	02 Oct 2017	Sea State	Confused swell
I24	02 Oct 2017	High Tide (ft)	4.7
I24	02 Oct 2017	High Tide Time	759
I24	02 Oct 2017	Low Tide (ft)	1.5
I24	02 Oct 2017	Low Tide Time	1349

Station	Date	Parameter	Value
I24	02 Oct 2017	Comments	
I24	10 Oct 2017	Depth (m)	12
I24	10 Oct 2017	Arrive Time	1057
I24	10 Oct 2017	Depart Time	1100
I24	10 Oct 2017	Air Temp (C)	18
I24	10 Oct 2017	Weather	Haze
I24	10 Oct 2017	Visibility (mi)	3
I24	10 Oct 2017	Wind Speed (kts)	6
I24	10 Oct 2017	Wind Dir	SW
I24	10 Oct 2017	Water Color	Green
I24	10 Oct 2017	Wave Ht Low (ft)	3
I24	10 Oct 2017	Wave Period (sec)	9
I24	10 Oct 2017	Sea State	Calm
I24	10 Oct 2017	High Tide (ft)	5.4
I24	10 Oct 2017	High Tide Time	1239
I24	10 Oct 2017	Low Tide (ft)	2.2
I24	10 Oct 2017	Low Tide Time	622
I24	10 Oct 2017	Comments	
I24	17 Oct 2017	Depth (m)	10
I24	17 Oct 2017	Arrive Time	1109
I24	17 Oct 2017	Depart Time	1111
I24	17 Oct 2017	Air Temp (C)	21
I24	17 Oct 2017	Weather	Partly Cloudy
I24	17 Oct 2017	Visibility (mi)	16
I24	17 Oct 2017	Wind Speed (kts)	7
I24	17 Oct 2017	Wind Dir	NW
I24	17 Oct 2017	Water Color	Greenish-Blue
I24	17 Oct 2017	Wave Ht Low (ft)	2
I24	17 Oct 2017	Wave Period (sec)	16
I24	17 Oct 2017	Sea State	Calm
I24	17 Oct 2017	High Tide (ft)	5.5
I24	17 Oct 2017	High Tide Time	821
I24	17 Oct 2017	Low Tide (ft)	0.5
I24	17 Oct 2017	Low Tide Time	1436
I24	17 Oct 2017	Comments	
I24	26 Oct 2017	Depth (m)	11
I24	26 Oct 2017	Arrive Time	1126
I24	26 Oct 2017	Depart Time	1131
I24	26 Oct 2017	Air Temp (C)	20
I24	26 Oct 2017	Weather	Clear
I24	26 Oct 2017	Visibility (mi)	12
I24	26 Oct 2017	Wind Speed (kts)	4
I24	26 Oct 2017	Wind Dir	N
I24	26 Oct 2017	Water Color	Green
I24	26 Oct 2017	Wave Ht Low (ft)	5
I24	26 Oct 2017	Wave Period (sec)	13
I24	26 Oct 2017	Sea State	Calm
I24	26 Oct 2017	High Tide (ft)	4.2
I24	26 Oct 2017	High Tide Time	1315
I24	26 Oct 2017	Low Tide (ft)	3.2
I24	26 Oct 2017	Low Tide Time	658
I24	26 Oct 2017	Comments	

Station	Date	Parameter	Value
I24	30 Oct 2017	Depth (m)	11
I24	30 Oct 2017	Arrive Time	1119
I24	30 Oct 2017	Depart Time	1122
I24	30 Oct 2017	Air Temp (C)	18
I24	30 Oct 2017	Weather	Overcast
I24	30 Oct 2017	Visibility (mi)	8
I24	30 Oct 2017	Wind Speed (kts)	10
I24	30 Oct 2017	Wind Dir	S
I24	30 Oct 2017	Water Color	Bluish-Green
I24	30 Oct 2017	Wave Ht Low (ft)	5
I24	30 Oct 2017	Wave Period (sec)	13
I24	30 Oct 2017	Sea State	Wind ripples
I24	30 Oct 2017	High Tide (ft)	4.6
I24	30 Oct 2017	High Tide Time	651
I24	30 Oct 2017	Low Tide (ft)	1.8
I24	30 Oct 2017	Low Tide Time	1251
I24	30 Oct 2017	Comments	
I25	02 Oct 2017	Depth (m)	10
I25	02 Oct 2017	Arrive Time	1143
I25	02 Oct 2017	Depart Time	1146
I25	02 Oct 2017	Air Temp (C)	20
I25	02 Oct 2017	Weather	Partly Cloudy
I25	02 Oct 2017	Visibility (mi)	13
I25	02 Oct 2017	Wind Speed (kts)	9
I25	02 Oct 2017	Wind Dir	N
I25	02 Oct 2017	Water Color	Bluish-Green
I25	02 Oct 2017	Wave Ht Low (ft)	3
I25	02 Oct 2017	Wave Period (sec)	13
I25	02 Oct 2017	Sea State	Confused swell
I25	02 Oct 2017	High Tide (ft)	4.7
I25	02 Oct 2017	High Tide Time	759
I25	02 Oct 2017	Low Tide (ft)	1.5
I25	02 Oct 2017	Low Tide Time	1349
I25	02 Oct 2017	Comments	
I25	10 Oct 2017	Depth (m)	10
I25	10 Oct 2017	Arrive Time	1105
I25	10 Oct 2017	Depart Time	1109
I25	10 Oct 2017	Air Temp (C)	18
I25	10 Oct 2017	Weather	Haze
I25	10 Oct 2017	Visibility (mi)	3
I25	10 Oct 2017	Wind Speed (kts)	7
I25	10 Oct 2017	Wind Dir	SE
I25	10 Oct 2017	Water Color	Green
I25	10 Oct 2017	Wave Ht Low (ft)	3
I25	10 Oct 2017	Wave Period (sec)	9
I25	10 Oct 2017	Sea State	Light chop
I25	10 Oct 2017	High Tide (ft)	5.4
I25	10 Oct 2017	High Tide Time	1239
I25	10 Oct 2017	Low Tide (ft)	2.2
I25	10 Oct 2017	Low Tide Time	622
I25	10 Oct 2017	Comments	

Station	Date	Parameter	Value
I25	17 Oct 2017	Depth (m)	9
I25	17 Oct 2017	Arrive Time	1117
I25	17 Oct 2017	Depart Time	1124
I25	17 Oct 2017	Air Temp (C)	21
I25	17 Oct 2017	Weather	Partly Cloudy
I25	17 Oct 2017	Visibility (mi)	16
I25	17 Oct 2017	Wind Speed (kts)	6
I25	17 Oct 2017	Wind Dir	N
I25	17 Oct 2017	Water Color	Greenish-Blue
I25	17 Oct 2017	Wave Ht Low (ft)	2
I25	17 Oct 2017	Wave Period (sec)	16
I25	17 Oct 2017	Sea State	Calm
I25	17 Oct 2017	High Tide (ft)	5.5
I25	17 Oct 2017	High Tide Time	821
I25	17 Oct 2017	Low Tide (ft)	0.5
I25	17 Oct 2017	Low Tide Time	1436
I25	17 Oct 2017	Comments	
I25	26 Oct 2017	Depth (m)	10
I25	26 Oct 2017	Arrive Time	1132
I25	26 Oct 2017	Depart Time	1135
I25	26 Oct 2017	Air Temp (C)	20
I25	26 Oct 2017	Weather	Clear
I25	26 Oct 2017	Visibility (mi)	12
I25	26 Oct 2017	Wind Speed (kts)	4
I25	26 Oct 2017	Wind Dir	W
I25	26 Oct 2017	Water Color	Green
I25	26 Oct 2017	Wave Ht Low (ft)	5
I25	26 Oct 2017	Wave Period (sec)	13
I25	26 Oct 2017	Sea State	Calm
I25	26 Oct 2017	High Tide (ft)	4.2
I25	26 Oct 2017	High Tide Time	1315
I25	26 Oct 2017	Low Tide (ft)	3.2
I25	26 Oct 2017	Low Tide Time	658
I25	26 Oct 2017	Comments	
I25	30 Oct 2017	Depth (m)	9
I25	30 Oct 2017	Arrive Time	1127
I25	30 Oct 2017	Depart Time	1131
I25	30 Oct 2017	Air Temp (C)	17
I25	30 Oct 2017	Weather	Overcast
I25	30 Oct 2017	Visibility (mi)	8
I25	30 Oct 2017	Wind Speed (kts)	12
I25	30 Oct 2017	Wind Dir	SE
I25	30 Oct 2017	Water Color	Bluish-Green
I25	30 Oct 2017	Wave Ht Low (ft)	5
I25	30 Oct 2017	Wave Period (sec)	13
I25	30 Oct 2017	Sea State	Wind ripples
I25	30 Oct 2017	High Tide (ft)	4.6
I25	30 Oct 2017	High Tide Time	651
I25	30 Oct 2017	Low Tide (ft)	1.8
I25	30 Oct 2017	Low Tide Time	1251
I25	30 Oct 2017	Comments	
I26	02 Oct 2017	Depth (m)	10

Station	Date	Parameter	Value
I26	02 Oct 2017	Arrive Time	1153
I26	02 Oct 2017	Depart Time	1156
I26	02 Oct 2017	Air Temp (C)	20
I26	02 Oct 2017	Weather	Partly Cloudy
I26	02 Oct 2017	Visibility (mi)	13
I26	02 Oct 2017	Wind Speed (kts)	8
I26	02 Oct 2017	Wind Dir	W
I26	02 Oct 2017	Water Color	Bluish-Green
I26	02 Oct 2017	Wave Ht Low (ft)	3
I26	02 Oct 2017	Wave Period (sec)	13
I26	02 Oct 2017	Sea State	Confused swell
I26	02 Oct 2017	High Tide (ft)	4.7
I26	02 Oct 2017	High Tide Time	759
I26	02 Oct 2017	Low Tide (ft)	1.5
I26	02 Oct 2017	Low Tide Time	1349
I26	02 Oct 2017	Comments	
I26	10 Oct 2017	Depth (m)	11
I26	10 Oct 2017	Arrive Time	1116
I26	10 Oct 2017	Depart Time	1119
I26	10 Oct 2017	Air Temp (C)	19
I26	10 Oct 2017	Weather	Haze
I26	10 Oct 2017	Visibility (mi)	3
I26	10 Oct 2017	Wind Speed (kts)	5
I26	10 Oct 2017	Wind Dir	NE
I26	10 Oct 2017	Water Color	Green
I26	10 Oct 2017	Wave Ht Low (ft)	3
I26	10 Oct 2017	Wave Period (sec)	9
I26	10 Oct 2017	Sea State	Calm
I26	10 Oct 2017	High Tide (ft)	5.4
I26	10 Oct 2017	High Tide Time	1239
I26	10 Oct 2017	Low Tide (ft)	2.2
I26	10 Oct 2017	Low Tide Time	622
I26	10 Oct 2017	Comments	
I26	17 Oct 2017	Depth (m)	9
I26	17 Oct 2017	Arrive Time	1129
I26	17 Oct 2017	Depart Time	1131
I26	17 Oct 2017	Air Temp (C)	21
I26	17 Oct 2017	Weather	Partly Cloudy
I26	17 Oct 2017	Visibility (mi)	16
I26	17 Oct 2017	Wind Speed (kts)	7
I26	17 Oct 2017	Wind Dir	S
I26	17 Oct 2017	Water Color	Greenish-Blue
I26	17 Oct 2017	Wave Ht Low (ft)	2
I26	17 Oct 2017	Wave Period (sec)	16
I26	17 Oct 2017	Sea State	Calm
I26	17 Oct 2017	High Tide (ft)	5.5
I26	17 Oct 2017	High Tide Time	821
I26	17 Oct 2017	Low Tide (ft)	0.5
I26	17 Oct 2017	Low Tide Time	1436
I26	17 Oct 2017	Comments	
I26	26 Oct 2017	Depth (m)	10
I26	26 Oct 2017	Arrive Time	1141

Station	Date	Parameter	Value
I26	26 Oct 2017	Depart Time	1145
I26	26 Oct 2017	Air Temp (C)	20
I26	26 Oct 2017	Weather	Clear
I26	26 Oct 2017	Visibility (mi)	12
I26	26 Oct 2017	Wind Speed (kts)	3
I26	26 Oct 2017	Wind Dir	SW
I26	26 Oct 2017	Water Color	Green
I26	26 Oct 2017	Wave Ht Low (ft)	5
I26	26 Oct 2017	Wave Period (sec)	13
I26	26 Oct 2017	Sea State	Calm
I26	26 Oct 2017	High Tide (ft)	4.2
I26	26 Oct 2017	High Tide Time	1315
I26	26 Oct 2017	Low Tide (ft)	3.2
I26	26 Oct 2017	Low Tide Time	658
I26	26 Oct 2017	Comments	
I26	30 Oct 2017	Depth (m)	10
I26	30 Oct 2017	Arrive Time	1136
I26	30 Oct 2017	Depart Time	1141
I26	30 Oct 2017	Air Temp (C)	17
I26	30 Oct 2017	Weather	Overcast
I26	30 Oct 2017	Visibility (mi)	8
I26	30 Oct 2017	Wind Speed (kts)	8
I26	30 Oct 2017	Wind Dir	SW
I26	30 Oct 2017	Water Color	Bluish-Green
I26	30 Oct 2017	Wave Ht Low (ft)	5
I26	30 Oct 2017	Wave Period (sec)	13
I26	30 Oct 2017	Sea State	Wind ripples
I26	30 Oct 2017	High Tide (ft)	4.6
I26	30 Oct 2017	High Tide Time	651
I26	30 Oct 2017	Low Tide (ft)	1.8
I26	30 Oct 2017	Low Tide Time	1251
I26	30 Oct 2017	Comments	
I32	02 Oct 2017	Depth (m)	10
I32	02 Oct 2017	Arrive Time	1208
I32	02 Oct 2017	Depart Time	1223
I32	02 Oct 2017	Air Temp (C)	20
I32	02 Oct 2017	Weather	Partly Cloudy
I32	02 Oct 2017	Visibility (mi)	13
I32	02 Oct 2017	Wind Speed (kts)	8
I32	02 Oct 2017	Wind Dir	E
I32	02 Oct 2017	Water Color	Green
I32	02 Oct 2017	Wave Ht Low (ft)	3
I32	02 Oct 2017	Wave Period (sec)	13
I32	02 Oct 2017	Sea State	Confused swell
I32	02 Oct 2017	High Tide (ft)	4.7
I32	02 Oct 2017	High Tide Time	759
I32	02 Oct 2017	Low Tide (ft)	1.5
I32	02 Oct 2017	Low Tide Time	1349
I32	02 Oct 2017	Comments	
I32	10 Oct 2017	Depth (m)	11
I32	10 Oct 2017	Arrive Time	1128
I32	10 Oct 2017	Depart Time	1133

Station	Date	Parameter	Value
I32	10 Oct 2017	Air Temp (C)	19
I32	10 Oct 2017	Weather	Haze
I32	10 Oct 2017	Visibility (mi)	3
I32	10 Oct 2017	Wind Speed (kts)	6
I32	10 Oct 2017	Wind Dir	SE
I32	10 Oct 2017	Water Color	Green
I32	10 Oct 2017	Wave Ht Low (ft)	3
I32	10 Oct 2017	Wave Period (sec)	9
I32	10 Oct 2017	Sea State	Calm
I32	10 Oct 2017	High Tide (ft)	5.4
I32	10 Oct 2017	High Tide Time	1239
I32	10 Oct 2017	Low Tide (ft)	2.2
I32	10 Oct 2017	Low Tide Time	622
I32	10 Oct 2017	Comments	none
I32	17 Oct 2017	Depth (m)	10
I32	17 Oct 2017	Arrive Time	1142
I32	17 Oct 2017	Depart Time	1146
I32	17 Oct 2017	Air Temp (C)	21
I32	17 Oct 2017	Weather	Partly Cloudy
I32	17 Oct 2017	Visibility (mi)	16
I32	17 Oct 2017	Wind Speed (kts)	6
I32	17 Oct 2017	Wind Dir	S
I32	17 Oct 2017	Water Color	Greenish-Blue
I32	17 Oct 2017	Wave Ht Low (ft)	2
I32	17 Oct 2017	Wave Period (sec)	16
I32	17 Oct 2017	Sea State	Calm
I32	17 Oct 2017	High Tide (ft)	5.5
I32	17 Oct 2017	High Tide Time	821
I32	17 Oct 2017	Low Tide (ft)	0.5
I32	17 Oct 2017	Low Tide Time	1436
I32	17 Oct 2017	Comments	
I32	26 Oct 2017	Depth (m)	11
I32	26 Oct 2017	Arrive Time	1153
I32	26 Oct 2017	Depart Time	1158
I32	26 Oct 2017	Air Temp (C)	21
I32	26 Oct 2017	Weather	Clear
I32	26 Oct 2017	Visibility (mi)	12
I32	26 Oct 2017	Wind Speed (kts)	4
I32	26 Oct 2017	Wind Dir	SW
I32	26 Oct 2017	Water Color	Green
I32	26 Oct 2017	Wave Ht Low (ft)	5
I32	26 Oct 2017	Wave Period (sec)	13
I32	26 Oct 2017	Sea State	Calm
I32	26 Oct 2017	High Tide (ft)	4.2
I32	26 Oct 2017	High Tide Time	1315
I32	26 Oct 2017	Low Tide (ft)	3.2
I32	26 Oct 2017	Low Tide Time	658
I32	26 Oct 2017	Comments	
I32	30 Oct 2017	Depth (m)	11
I32	30 Oct 2017	Arrive Time	1149
I32	30 Oct 2017	Depart Time	1154
I32	30 Oct 2017	Air Temp (C)	18

Station	Date	Parameter	Value
I32	30 Oct 2017	Weather	Overcast
I32	30 Oct 2017	Visibility (mi)	10
I32	30 Oct 2017	Wind Speed (kts)	8
I32	30 Oct 2017	Wind Dir	SW
I32	30 Oct 2017	Water Color	Bluish-Green
I32	30 Oct 2017	Wave Ht Low (ft)	5
I32	30 Oct 2017	Wave Period (sec)	13
I32	30 Oct 2017	Sea State	Wind ripples
I32	30 Oct 2017	High Tide (ft)	4.6
I32	30 Oct 2017	High Tide Time	651
I32	30 Oct 2017	Low Tide (ft)	1.8
I32	30 Oct 2017	Low Tide Time	1251
I32	30 Oct 2017	Comments	
I39	02 Oct 2017	Depth (m)	19
I39	02 Oct 2017	Arrive Time	1045
I39	02 Oct 2017	Depart Time	1048
I39	02 Oct 2017	Air Temp (C)	20
I39	02 Oct 2017	Weather	Partly Cloudy
I39	02 Oct 2017	Visibility (mi)	13
I39	02 Oct 2017	Wind Speed (kts)	10
I39	02 Oct 2017	Wind Dir	S
I39	02 Oct 2017	Water Color	Greenish-Blue
I39	02 Oct 2017	Wave Ht Low (ft)	4
I39	02 Oct 2017	Wave Period (sec)	13
I39	02 Oct 2017	Sea State	Confused swell
I39	02 Oct 2017	High Tide (ft)	4.7
I39	02 Oct 2017	High Tide Time	759
I39	02 Oct 2017	Low Tide (ft)	1.5
I39	02 Oct 2017	Low Tide Time	1349
I39	02 Oct 2017	Comments	
I39	10 Oct 2017	Depth (m)	19
I39	10 Oct 2017	Arrive Time	1012
I39	10 Oct 2017	Depart Time	1016
I39	10 Oct 2017	Air Temp (C)	17
I39	10 Oct 2017	Weather	Fog
I39	10 Oct 2017	Visibility (mi)	3
I39	10 Oct 2017	Wind Speed (kts)	4
I39	10 Oct 2017	Wind Dir	SE
I39	10 Oct 2017	Water Color	Greenish-Blue
I39	10 Oct 2017	Wave Ht Low (ft)	3
I39	10 Oct 2017	Wave Period (sec)	9
I39	10 Oct 2017	Sea State	Calm
I39	10 Oct 2017	High Tide (ft)	5.4
I39	10 Oct 2017	High Tide Time	1239
I39	10 Oct 2017	Low Tide (ft)	2.2
I39	10 Oct 2017	Low Tide Time	622
I39	10 Oct 2017	Comments	
I39	17 Oct 2017	Depth (m)	20
I39	17 Oct 2017	Arrive Time	1024
I39	17 Oct 2017	Depart Time	1027
I39	17 Oct 2017	Air Temp (C)	21
I39	17 Oct 2017	Weather	Haze

Station	Date	Parameter	Value
I39	17 Oct 2017	Visibility (mi)	12
I39	17 Oct 2017	Wind Speed (kts)	7
I39	17 Oct 2017	Wind Dir	SW
I39	17 Oct 2017	Water Color	Greenish-Blue
I39	17 Oct 2017	Wave Ht Low (ft)	2
I39	17 Oct 2017	Wave Period (sec)	16
I39	17 Oct 2017	Sea State	Calm
I39	17 Oct 2017	High Tide (ft)	5.5
I39	17 Oct 2017	High Tide Time	821
I39	17 Oct 2017	Low Tide (ft)	0.5
I39	17 Oct 2017	Low Tide Time	1436
I39	17 Oct 2017	Comments	
I39	26 Oct 2017	Depth (m)	19
I39	26 Oct 2017	Arrive Time	1040
I39	26 Oct 2017	Depart Time	1042
I39	26 Oct 2017	Air Temp (C)	24
I39	26 Oct 2017	Weather	Clear
I39	26 Oct 2017	Visibility (mi)	8
I39	26 Oct 2017	Wind Speed (kts)	1
I39	26 Oct 2017	Wind Dir	SE
I39	26 Oct 2017	Water Color	Green
I39	26 Oct 2017	Wave Ht Low (ft)	5
I39	26 Oct 2017	Wave Period (sec)	13
I39	26 Oct 2017	Sea State	Calm
I39	26 Oct 2017	High Tide (ft)	4.2
I39	26 Oct 2017	High Tide Time	1315
I39	26 Oct 2017	Low Tide (ft)	3.2
I39	26 Oct 2017	Low Tide Time	658
I39	26 Oct 2017	Comments	Kelp
I39	30 Oct 2017	Depth (m)	18
I39	30 Oct 2017	Arrive Time	1034
I39	30 Oct 2017	Depart Time	1038
I39	30 Oct 2017	Air Temp (C)	18
I39	30 Oct 2017	Weather	Overcast
I39	30 Oct 2017	Visibility (mi)	8
I39	30 Oct 2017	Wind Speed (kts)	5
I39	30 Oct 2017	Wind Dir	E
I39	30 Oct 2017	Water Color	Bluish-Green
I39	30 Oct 2017	Wave Ht Low (ft)	5
I39	30 Oct 2017	Wave Period (sec)	13
I39	30 Oct 2017	Sea State	Wind ripples
I39	30 Oct 2017	High Tide (ft)	4.6
I39	30 Oct 2017	High Tide Time	651
I39	30 Oct 2017	Low Tide (ft)	1.8
I39	30 Oct 2017	Low Tide Time	1251
I39	30 Oct 2017	Comments	
I40	02 Oct 2017	Depth (m)	11
I40	02 Oct 2017	Arrive Time	1125
I40	02 Oct 2017	Depart Time	1127
I40	02 Oct 2017	Air Temp (C)	20
I40	02 Oct 2017	Weather	Partly Cloudy
I40	02 Oct 2017	Visibility (mi)	13

Station	Date	Parameter	Value
I40	02 Oct 2017	Wind Speed (kts)	8
I40	02 Oct 2017	Wind Dir	E
I40	02 Oct 2017	Water Color	Bluish-Green
I40	02 Oct 2017	Wave Ht Low (ft)	3
I40	02 Oct 2017	Wave Period (sec)	13
I40	02 Oct 2017	Sea State	Confused swell
I40	02 Oct 2017	High Tide (ft)	4.7
I40	02 Oct 2017	High Tide Time	759
I40	02 Oct 2017	Low Tide (ft)	1.5
I40	02 Oct 2017	Low Tide Time	1349
I40	02 Oct 2017	Comments	
I40	10 Oct 2017	Depth (m)	11
I40	10 Oct 2017	Arrive Time	1048
I40	10 Oct 2017	Depart Time	1052
I40	10 Oct 2017	Air Temp (C)	17
I40	10 Oct 2017	Weather	Fog
I40	10 Oct 2017	Visibility (mi)	3
I40	10 Oct 2017	Wind Speed (kts)	2
I40	10 Oct 2017	Wind Dir	SW
I40	10 Oct 2017	Water Color	Green
I40	10 Oct 2017	Wave Ht Low (ft)	3
I40	10 Oct 2017	Wave Period (sec)	9
I40	10 Oct 2017	Sea State	Calm
I40	10 Oct 2017	High Tide (ft)	5.4
I40	10 Oct 2017	High Tide Time	1239
I40	10 Oct 2017	Low Tide (ft)	2.2
I40	10 Oct 2017	Low Tide Time	622
I40	10 Oct 2017	Comments	
I40	17 Oct 2017	Depth (m)	11
I40	17 Oct 2017	Arrive Time	1100
I40	17 Oct 2017	Depart Time	1103
I40	17 Oct 2017	Air Temp (C)	21
I40	17 Oct 2017	Weather	Haze
I40	17 Oct 2017	Visibility (mi)	12
I40	17 Oct 2017	Wind Speed (kts)	6
I40	17 Oct 2017	Wind Dir	S
I40	17 Oct 2017	Water Color	Green
I40	17 Oct 2017	Wave Ht Low (ft)	2
I40	17 Oct 2017	Wave Period (sec)	16
I40	17 Oct 2017	Sea State	Calm
I40	17 Oct 2017	High Tide (ft)	5.5
I40	17 Oct 2017	High Tide Time	821
I40	17 Oct 2017	Low Tide (ft)	0.5
I40	17 Oct 2017	Low Tide Time	1436
I40	17 Oct 2017	Comments	
I40	26 Oct 2017	Depth (m)	11
I40	26 Oct 2017	Arrive Time	1118
I40	26 Oct 2017	Depart Time	1122
I40	26 Oct 2017	Air Temp (C)	20
I40	26 Oct 2017	Weather	Clear
I40	26 Oct 2017	Visibility (mi)	12
I40	26 Oct 2017	Wind Speed (kts)	5

Station	Date	Parameter	Value
I40	26 Oct 2017	Wind Dir	SE
I40	26 Oct 2017	Water Color	Green
I40	26 Oct 2017	Wave Ht Low (ft)	5
I40	26 Oct 2017	Wave Period (sec)	13
I40	26 Oct 2017	Sea State	Calm
I40	26 Oct 2017	High Tide (ft)	4.2
I40	26 Oct 2017	High Tide Time	1315
I40	26 Oct 2017	Low Tide (ft)	3.2
I40	26 Oct 2017	Low Tide Time	658
I40	26 Oct 2017	Comments	
I40	30 Oct 2017	Depth (m)	10
I40	30 Oct 2017	Arrive Time	1109
I40	30 Oct 2017	Depart Time	1113
I40	30 Oct 2017	Air Temp (C)	18
I40	30 Oct 2017	Weather	Overcast
I40	30 Oct 2017	Visibility (mi)	8
I40	30 Oct 2017	Wind Speed (kts)	8
I40	30 Oct 2017	Wind Dir	SE
I40	30 Oct 2017	Water Color	Greenish-Blue
I40	30 Oct 2017	Wave Ht Low (ft)	5
I40	30 Oct 2017	Wave Period (sec)	13
I40	30 Oct 2017	Sea State	Wind ripples
I40	30 Oct 2017	High Tide (ft)	4.6
I40	30 Oct 2017	High Tide Time	651
I40	30 Oct 2017	Low Tide (ft)	1.8
I40	30 Oct 2017	Low Tide Time	1251
I40	30 Oct 2017	Comments	

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 (σ-t)	Chlor (μg/L)
I19	02 Oct 2017	1	19.81	76.53	7.8	33.36	8.2	23.6	0.90
I19	02 Oct 2017	2	19.79	76.64	7.8	33.36	8.2	23.6	0.90
I19	02 Oct 2017	3	19.75	76.59	7.9	33.38	8.2	23.6	0.95
I19	02 Oct 2017	4	19.75	77.65	7.9	33.38	8.2	23.6	1.08
I19	02 Oct 2017	5	19.75	78.03	7.9	33.38	8.2	23.6	1.24
I19	02 Oct 2017	6	19.75	77.88	8.0	33.39	8.2	23.6	1.40
I19	02 Oct 2017	7	19.75	77.85	8.0	33.39	8.2	23.6	1.46
I19	02 Oct 2017	8	19.75	77.27	7.9	33.39	8.2	23.6	1.53
I19	02 Oct 2017	9	19.75	77.67	8.0	33.39	8.2	23.6	1.52
I19	02 Oct 2017	10	19.75	77.79	8.0	33.39	8.2	23.6	1.52
I19	10 Oct 2017	1	19.83	72.72	7.9	33.38	8.2	23.6	1.61
I19	10 Oct 2017	2	19.83	73.95	7.9	33.38	8.2	23.6	1.73
I19	10 Oct 2017	3	19.76	73.51	7.8	33.39	8.2	23.6	1.87
I19	10 Oct 2017	4	19.64	72.27	7.7	33.40	8.2	23.6	1.87
I19	10 Oct 2017	5	19.60	71.21	7.7	33.39	8.2	23.6	1.86
I19	10 Oct 2017	6	19.54	65.08	7.6	33.40	8.2	23.7	2.01
I19	10 Oct 2017	7	19.40	63.41	7.5	33.40	8.2	23.7	2.28
I19	10 Oct 2017	8	19.22	59.39	7.3	33.39	8.2	23.7	2.50
I19	10 Oct 2017	9	18.69	55.40	7.1	33.41	8.2	23.9	2.58
I19	10 Oct 2017	10	17.71	56.31	7.1	33.40	8.1	24.1	2.41
I19	17 Oct 2017	1	17.99	77.55	8.0	33.40	8.1	24.0	1.38
I19	17 Oct 2017	2	17.94	77.17	8.0	33.39	8.1	24.1	1.53
I19	17 Oct 2017	3	17.86	75.92	7.9	33.39	8.1	24.1	1.92
I19	17 Oct 2017	4	17.81	74.95	7.8	33.38	8.1	24.1	2.42
I19	17 Oct 2017	5	17.74	73.09	7.8	33.39	8.1	24.1	2.98
I19	17 Oct 2017	6	17.66	71.97	7.7	33.38	8.1	24.1	3.43
I19	17 Oct 2017	7	17.53	69.17	7.4	33.38	8.1	24.1	3.79
I19	17 Oct 2017	8	17.52	68.19	7.4	33.38	8.1	24.1	4.08
I19	17 Oct 2017	9	17.48	67.75	7.3	33.38	8.1	24.2	4.16
I19	17 Oct 2017	10	17.44	67.13	7.3	33.38	8.1	24.2	3.94
I19	26 Oct 2017	1	16.18	59.50	8.4	33.28	8.1	24.4	5.24
I19	26 Oct 2017	2	16.17	58.50	8.4	33.28	8.1	24.4	5.31
I19	26 Oct 2017	3	16.14	57.75	8.5	33.28	8.1	24.4	6.15
I19	26 Oct 2017	4	16.12	58.51	8.4	33.29	8.1	24.4	7.58
I19	26 Oct 2017	5	16.06	61.08	8.3	33.30	8.1	24.4	7.40
I19	26 Oct 2017	6	15.99	64.05	8.1	33.32	8.1	24.5	5.45
I19	26 Oct 2017	7	15.96	64.14	8.0	33.31	8.1	24.5	4.01
I19	26 Oct 2017	8	15.90	63.77	7.9	33.30	8.1	24.5	3.21
I19	26 Oct 2017	9	15.73	63.97	7.9	33.31	8.0	24.5	2.66
I19	26 Oct 2017	10	15.67	63.91	7.8	33.31	8.0	24.5	2.31
I19	30 Oct 2017	1	18.12	79.39	8.0	33.38	8.1	24.0	1.86
I19	30 Oct 2017	2	18.12	75.96	8.0	33.38	8.1	24.0	1.87
I19	30 Oct 2017	3	18.12	77.15	8.0	33.38	8.1	24.0	1.90
I19	30 Oct 2017	4	18.10	78.88	8.0	33.38	8.1	24.0	2.03
I19	30 Oct 2017	5	18.11	79.33	8.1	33.38	8.1	24.0	2.13
I19	30 Oct 2017	6	18.09	80.22	8.0	33.38	8.1	24.0	2.16
I19	30 Oct 2017	7	18.08	79.68	8.1	33.38	8.1	24.0	2.08

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I19	30 Oct 2017	8	18.08	78.69	8.1	33.39	8.1	24.0	2.00
I19	30 Oct 2017	9	18.08	78.43	8.0	33.39	8.1	24.0	1.91
I19	30 Oct 2017	10	18.06	78.51	8.0	33.39	8.1	24.0	1.82
I24	02 Oct 2017	1	20.09	84.22	8.1	33.43	8.2	23.5	0.61
I24	02 Oct 2017	2	19.97	83.99	8.1	33.43	8.2	23.6	0.64
I24	02 Oct 2017	3	19.90	83.51	8.2	33.43	8.2	23.6	0.71
I24	02 Oct 2017	4	19.77	82.98	8.2	33.41	8.2	23.6	0.83
I24	02 Oct 2017	5	19.78	83.06	8.3	33.41	8.2	23.6	0.91
I24	02 Oct 2017	6	19.75	82.66	8.2	33.41	8.2	23.6	0.94
I24	02 Oct 2017	7	19.73	80.94	8.2	33.41	8.2	23.6	1.00
I24	02 Oct 2017	8	19.72	78.73	8.2	33.41	8.2	23.6	1.10
I24	02 Oct 2017	9	19.70	77.32	8.2	33.41	8.2	23.6	1.16
I24	02 Oct 2017	10	19.68	76.09	8.2	33.41	8.2	23.6	1.25
I24	10 Oct 2017	1	19.98	74.33	8.2	33.40	8.2	23.5	2.36
I24	10 Oct 2017	2	19.96	74.08	8.2	33.40	8.2	23.6	2.37
I24	10 Oct 2017	3	19.92	74.53	8.2	33.40	8.2	23.6	2.52
I24	10 Oct 2017	4	19.90	74.58	8.2	33.40	8.2	23.6	2.71
I24	10 Oct 2017	5	19.82	74.86	8.2	33.40	8.2	23.6	2.97
I24	10 Oct 2017	6	19.79	76.01	8.1	33.40	8.2	23.6	3.23
I24	10 Oct 2017	7	19.68	77.54	8.1	33.40	8.2	23.6	3.31
I24	10 Oct 2017	8	19.59	77.56	8.0	33.39	8.2	23.6	3.29
I24	10 Oct 2017	9	19.43	75.90	7.6	33.41	8.2	23.7	3.01
I24	10 Oct 2017	10	18.99	74.33	7.4	33.42	8.2	23.8	2.64
I24	10 Oct 2017	11	18.37	73.13	7.2	33.47	8.2	24.0	2.43
I24	17 Oct 2017	1	19.63	84.09	8.0	33.45	8.2	23.7	0.77
I24	17 Oct 2017	2	19.32	84.02	7.9	33.47	8.2	23.8	0.81
I24	17 Oct 2017	3	18.52	81.72	7.8	33.42	8.2	23.9	1.01
I24	17 Oct 2017	4	18.28	79.44	7.7	33.41	8.2	24.0	1.31
I24	17 Oct 2017	5	18.08	76.19	7.5	33.39	8.1	24.0	1.69
I24	17 Oct 2017	6	17.81	71.23	7.3	33.39	8.1	24.1	2.26
I24	17 Oct 2017	7	17.69	74.20	7.1	33.37	8.1	24.1	2.26
I24	17 Oct 2017	8	16.81	73.98	6.6	33.40	8.1	24.3	2.11
I24	17 Oct 2017	9	16.70	69.60	6.4	33.34	8.0	24.3	1.72
I24	17 Oct 2017	10	16.16	64.76	6.5	33.37	8.0	24.5	1.53
I24	17 Oct 2017	11	16.08	61.76	6.5	33.35	8.0	24.5	1.46
I24	26 Oct 2017	1	16.82	63.47	8.2	33.39	8.1	24.3	1.97
I24	26 Oct 2017	2	16.59	63.51	8.2	33.39	8.1	24.4	2.06
I24	26 Oct 2017	3	16.51	63.56	8.2	33.37	8.1	24.4	2.29
I24	26 Oct 2017	4	16.51	63.91	8.2	33.37	8.1	24.4	2.52
I24	26 Oct 2017	5	16.06	64.39	8.1	33.41	8.1	24.5	3.25
I24	26 Oct 2017	6	15.66	67.70	7.8	33.38	8.1	24.6	3.77
I24	26 Oct 2017	7	15.45	57.20	7.6	33.37	8.1	24.6	3.53
I24	26 Oct 2017	8	15.25	46.35	7.4	33.38	8.1	24.7	3.25
I24	26 Oct 2017	9	15.19	39.61	7.3	33.36	8.0	24.7	3.08
I24	26 Oct 2017	10	15.10	35.12	7.1	33.37	8.0	24.7	2.95
I24	26 Oct 2017	11	15.05	32.50	7.1	33.36	8.0	24.7	2.84
I24	30 Oct 2017	1	18.15	81.72	8.2	33.38	8.2	24.0	1.54
I24	30 Oct 2017	2	18.15	82.09	8.2	33.39	8.2	24.0	1.56
I24	30 Oct 2017	3	18.15	83.51	8.2	33.39	8.2	24.0	1.60
I24	30 Oct 2017	4	18.16	83.25	8.2	33.39	8.2	24.0	1.62

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I24	30 Oct 2017	5	18.13	82.91	8.1	33.39	8.2	24.0	1.77
I24	30 Oct 2017	6	18.00	81.32	8.1	33.39	8.2	24.0	2.01
I24	30 Oct 2017	7	17.78	74.58	8.0	33.40	8.2	24.1	2.17
I24	30 Oct 2017	8	17.48	70.91	8.1	33.39	8.1	24.2	2.33
I24	30 Oct 2017	9	17.09	80.09	8.1	33.38	8.2	24.3	2.07
I24	30 Oct 2017	10	17.04	73.55	8.1	33.36	8.1	24.2	1.73
I24	30 Oct 2017	11	17.04	67.90	8.1	33.36	8.1	24.2	1.61
I25	02 Oct 2017	1	20.07	82.82	8.1	33.43	8.2	23.5	0.63
I25	02 Oct 2017	2	20.07	82.79	8.1	33.43	8.2	23.5	0.63
I25	02 Oct 2017	3	19.96	83.12	8.1	33.43	8.2	23.6	0.65
I25	02 Oct 2017	4	19.91	82.50	8.1	33.42	8.2	23.6	0.72
I25	02 Oct 2017	5	19.74	80.47	8.2	33.41	8.2	23.6	0.79
I25	02 Oct 2017	6	19.69	78.93	8.3	33.40	8.2	23.6	0.95
I25	02 Oct 2017	7	19.68	78.67	8.3	33.40	8.2	23.6	1.03
I25	02 Oct 2017	8	19.68	78.25	8.3	33.40	8.2	23.6	1.08
I25	02 Oct 2017	9	19.67	78.19	8.3	33.40	8.2	23.6	1.13
I25	10 Oct 2017	1	20.00	72.75	8.4	33.39	8.2	23.5	2.35
I25	10 Oct 2017	2	19.96	72.83	8.4	33.40	8.2	23.5	2.41
I25	10 Oct 2017	3	19.94	72.93	8.4	33.39	8.2	23.6	2.54
I25	10 Oct 2017	4	19.95	72.99	8.4	33.39	8.2	23.5	2.71
I25	10 Oct 2017	5	19.93	73.15	8.4	33.40	8.2	23.6	2.76
I25	10 Oct 2017	6	19.81	73.74	8.2	33.41	8.2	23.6	3.04
I25	10 Oct 2017	7	19.57	78.25	8.0	33.41	8.2	23.7	3.14
I25	10 Oct 2017	8	19.36	76.95	7.6	33.41	8.2	23.7	2.87
I25	10 Oct 2017	9	19.18	70.85	7.3	33.40	8.2	23.8	2.40
I25	17 Oct 2017	1	19.46	84.67	8.0	33.43	8.2	23.7	0.71
I25	17 Oct 2017	2	19.18	84.33	7.9	33.46	8.2	23.8	0.71
I25	17 Oct 2017	3	18.68	83.93	7.9	33.47	8.2	23.9	0.78
I25	17 Oct 2017	4	17.97	83.75	8.0	33.42	8.2	24.1	0.93
I25	17 Oct 2017	5	17.84	84.12	8.0	33.38	8.2	24.1	1.11
I25	17 Oct 2017	6	17.78	82.74	7.8	33.38	8.2	24.1	1.35
I25	17 Oct 2017	7	17.57	80.25	7.5	33.38	8.1	24.1	1.55
I25	17 Oct 2017	8	17.28	80.76	7.1	33.40	8.1	24.2	1.84
I25	17 Oct 2017	9	16.86	77.30	6.8	33.37	8.1	24.3	1.83
I25	26 Oct 2017	1	17.28	72.22	8.3	33.40	8.1	24.2	1.71
I25	26 Oct 2017	2	17.36	72.14	8.3	33.39	8.1	24.2	1.73
I25	26 Oct 2017	3	17.11	71.77	8.2	33.44	8.1	24.3	1.83
I25	26 Oct 2017	4	16.51	69.18	8.3	33.45	8.1	24.4	2.17
I25	26 Oct 2017	5	16.07	68.54	8.2	33.41	8.1	24.5	2.94
I25	26 Oct 2017	6	15.69	69.12	8.0	33.41	8.1	24.6	3.23
I25	26 Oct 2017	7	15.38	66.44	7.8	33.39	8.1	24.6	3.34
I25	26 Oct 2017	8	15.22	62.16	7.6	33.37	8.1	24.7	3.17
I25	26 Oct 2017	9	15.20	60.57	7.5	33.36	8.1	24.7	2.76
I25	30 Oct 2017	1	18.16	83.86	8.2	33.39	8.2	24.0	1.47
I25	30 Oct 2017	2	18.15	83.41	8.2	33.39	8.2	24.0	1.55
I25	30 Oct 2017	3	18.15	83.58	8.2	33.39	8.2	24.0	1.62
I25	30 Oct 2017	4	18.11	82.72	8.2	33.39	8.2	24.0	1.83
I25	30 Oct 2017	5	18.09	81.49	8.2	33.39	8.2	24.0	1.99
I25	30 Oct 2017	6	18.01	79.34	8.1	33.39	8.2	24.0	2.05
I25	30 Oct 2017	7	17.62	70.69	8.1	33.41	8.2	24.1	2.22

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I25	30 Oct 2017	8	17.31	73.65	8.1	33.37	8.1	24.2	2.06
I25	30 Oct 2017	9	17.39	74.38	8.1	33.35	8.1	24.2	1.66
I26	02 Oct 2017	1	19.98	81.34	8.0	33.42	8.2	23.6	0.62
I26	02 Oct 2017	2	19.98	81.34	8.0	33.42	8.2	23.6	0.63
I26	02 Oct 2017	3	19.96	81.73	8.0	33.42	8.2	23.6	0.65
I26	02 Oct 2017	4	19.96	81.81	8.0	33.42	8.2	23.6	0.69
I26	02 Oct 2017	5	19.96	81.93	8.0	33.42	8.2	23.6	0.73
I26	02 Oct 2017	6	19.96	81.99	8.0	33.42	8.2	23.6	0.75
I26	02 Oct 2017	7	19.86	81.92	8.0	33.43	8.2	23.6	0.81
I26	02 Oct 2017	8	19.75	81.29	8.0	33.42	8.2	23.6	0.90
I26	02 Oct 2017	9	19.65	80.16	8.0	33.41	8.2	23.6	1.00
I26	10 Oct 2017	1	20.20	71.84	7.8	33.41	8.2	23.5	2.01
I26	10 Oct 2017	2	20.10	71.75	7.7	33.42	8.2	23.5	2.01
I26	10 Oct 2017	3	19.82	71.21	7.6	33.41	8.2	23.6	2.00
I26	10 Oct 2017	4	19.55	73.24	7.6	33.41	8.2	23.7	2.15
I26	10 Oct 2017	5	19.37	73.69	7.6	33.40	8.2	23.7	2.42
I26	10 Oct 2017	6	19.05	74.38	7.8	33.41	8.2	23.8	2.50
I26	10 Oct 2017	7	18.81	75.71	7.8	33.40	8.2	23.8	2.69
I26	10 Oct 2017	8	18.69	75.49	7.6	33.38	8.2	23.9	2.57
I26	10 Oct 2017	9	18.68	74.32	7.6	33.37	8.2	23.9	2.33
I26	17 Oct 2017	1	19.92	84.56	7.9	33.45	8.2	23.6	0.68
I26	17 Oct 2017	2	19.26	84.79	8.0	33.52	8.2	23.8	0.69
I26	17 Oct 2017	3	18.56	85.06	8.2	33.43	8.2	23.9	0.71
I26	17 Oct 2017	4	18.34	84.29	8.3	33.41	8.2	24.0	0.79
I26	17 Oct 2017	5	18.18	83.66	8.3	33.39	8.2	24.0	0.92
I26	17 Oct 2017	6	18.04	81.22	8.1	33.39	8.2	24.0	1.15
I26	17 Oct 2017	7	17.59	79.11	7.7	33.42	8.2	24.2	1.44
I26	17 Oct 2017	8	16.76	77.39	7.4	33.36	8.1	24.3	1.70
I26	17 Oct 2017	9	16.73	77.04	7.3	33.33	8.1	24.3	1.74
I26	26 Oct 2017	1	16.68	64.71	8.4	33.40	8.1	24.4	2.22
I26	26 Oct 2017	2	16.56	64.53	8.3	33.39	8.1	24.4	2.32
I26	26 Oct 2017	3	16.38	64.41	8.2	33.40	8.1	24.4	2.58
I26	26 Oct 2017	4	16.15	64.87	8.0	33.39	8.1	24.5	2.90
I26	26 Oct 2017	5	15.89	67.73	7.9	33.38	8.1	24.5	3.09
I26	26 Oct 2017	6	15.65	71.91	7.9	33.36	8.1	24.6	2.78
I26	26 Oct 2017	7	15.42	78.00	7.9	33.36	8.1	24.6	2.54
I26	26 Oct 2017	8	15.25	81.46	7.9	33.35	8.1	24.6	2.72
I26	26 Oct 2017	9	15.13	80.74	7.9	33.35	8.1	24.7	2.98
I26	30 Oct 2017	1	18.15	81.91	8.2	33.39	8.2	24.0	1.82
I26	30 Oct 2017	2	18.15	80.30	8.2	33.39	8.2	24.0	1.90
I26	30 Oct 2017	3	18.14	82.05	8.2	33.39	8.2	24.0	1.97
I26	30 Oct 2017	4	18.08	81.68	8.1	33.40	8.2	24.0	2.09
I26	30 Oct 2017	5	17.99	80.12	8.1	33.39	8.2	24.0	2.06
I26	30 Oct 2017	6	17.95	79.02	8.1	33.39	8.2	24.0	2.00
I26	30 Oct 2017	7	17.92	77.62	8.0	33.38	8.2	24.1	1.95
I26	30 Oct 2017	8	17.84	75.66	8.0	33.39	8.1	24.1	1.84
I26	30 Oct 2017	9	17.58	68.53	7.8	33.40	8.1	24.1	1.75
I32	02 Oct 2017	1	20.05	77.10	7.9	33.42	8.1	23.5	1.13
I32	02 Oct 2017	2	20.05	77.06	7.9	33.42	8.1	23.5	1.15

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I32	02 Oct 2017	3	19.98	76.34	8.0	33.42	8.1	23.6	1.48
I32	02 Oct 2017	4	19.94	74.61	8.1	33.41	8.1	23.6	2.01
I32	02 Oct 2017	5	19.94	73.92	8.1	33.41	8.1	23.6	2.55
I32	02 Oct 2017	6	19.93	73.97	8.1	33.41	8.1	23.6	2.90
I32	02 Oct 2017	7	19.90	73.84	8.2	33.41	8.1	23.6	3.13
I32	02 Oct 2017	8	19.85	75.72	8.1	33.41	8.1	23.6	2.86
I32	02 Oct 2017	9	19.74	73.08	8.1	33.39	8.1	23.6	2.26
I32	02 Oct 2017	10	19.71	66.97	8.1	33.39	8.1	23.6	1.94
I32	10 Oct 2017	1	20.19	71.72	8.0	33.43	8.2	23.5	1.91
I32	10 Oct 2017	2	20.08	71.38	7.9	33.45	8.2	23.6	1.96
I32	10 Oct 2017	3	19.84	68.62	7.8	33.42	8.2	23.6	2.30
I32	10 Oct 2017	4	19.70	64.48	7.6	33.45	8.2	23.7	2.71
I32	10 Oct 2017	5	19.27	56.28	7.4	33.44	8.2	23.8	3.22
I32	10 Oct 2017	6	18.92	57.68	7.5	33.42	8.2	23.8	3.46
I32	10 Oct 2017	7	18.76	63.29	7.4	33.40	8.2	23.9	3.33
I32	10 Oct 2017	8	18.61	60.70	7.2	33.41	8.2	23.9	3.07
I32	10 Oct 2017	9	18.20	54.09	7.2	33.40	8.1	24.0	2.85
I32	10 Oct 2017	10	17.89	52.69	7.2	33.40	8.1	24.1	2.74
I32	17 Oct 2017	1	19.88	82.22	7.9	33.45	8.2	23.6	0.83
I32	17 Oct 2017	2	19.70	82.06	7.9	33.47	8.2	23.7	0.84
I32	17 Oct 2017	3	19.37	81.00	8.0	33.45	8.2	23.7	0.95
I32	17 Oct 2017	4	19.11	79.50	8.1	33.45	8.2	23.8	1.07
I32	17 Oct 2017	5	18.89	79.41	8.1	33.43	8.2	23.8	1.25
I32	17 Oct 2017	6	18.80	76.63	8.1	33.42	8.2	23.9	1.49
I32	17 Oct 2017	7	18.68	75.56	8.1	33.41	8.2	23.9	1.99
I32	17 Oct 2017	8	18.62	75.74	8.0	33.41	8.2	23.9	2.46
I32	17 Oct 2017	9	18.03	77.15	7.7	33.46	8.2	24.1	2.56
I32	17 Oct 2017	10	17.08	66.56	7.5	33.41	8.1	24.3	2.64
I32	26 Oct 2017	1	18.01	79.04	8.0	33.42	8.1	24.1	1.19
I32	26 Oct 2017	2	17.67	78.93	8.0	33.46	8.1	24.2	1.21
I32	26 Oct 2017	3	17.03	77.49	8.1	33.45	8.1	24.3	1.27
I32	26 Oct 2017	4	16.93	75.82	8.1	33.41	8.1	24.3	1.53
I32	26 Oct 2017	5	16.77	75.19	8.1	33.41	8.1	24.4	1.91
I32	26 Oct 2017	6	16.60	73.70	8.1	33.41	8.1	24.4	2.44
I32	26 Oct 2017	7	16.24	70.62	8.0	33.42	8.1	24.5	3.09
I32	26 Oct 2017	8	15.78	68.59	7.9	33.40	8.1	24.6	3.27
I32	26 Oct 2017	9	15.25	72.63	7.8	33.40	8.1	24.7	3.35
I32	26 Oct 2017	10	15.01	66.04	7.6	33.36	8.1	24.7	3.61
I32	30 Oct 2017	1	18.18	84.82	8.2	33.40	8.2	24.0	1.68
I32	30 Oct 2017	2	18.18	84.75	8.2	33.40	8.2	24.0	1.74
I32	30 Oct 2017	3	18.17	84.67	8.3	33.40	8.2	24.0	1.82
I32	30 Oct 2017	4	18.16	84.40	8.2	33.40	8.2	24.0	1.91
I32	30 Oct 2017	5	18.16	84.40	8.3	33.40	8.2	24.0	1.95
I32	30 Oct 2017	6	18.14	83.89	8.2	33.40	8.2	24.0	2.02
I32	30 Oct 2017	7	18.10	82.95	8.2	33.40	8.2	24.0	2.17
I32	30 Oct 2017	8	18.09	81.53	8.2	33.39	8.2	24.0	2.18
I32	30 Oct 2017	9	18.03	75.82	8.1	33.39	8.2	24.0	2.11
I32	30 Oct 2017	10	18.01	69.62	8.1	33.39	8.2	24.0	2.07
I39	02 Oct 2017	1	19.71	85.14	8.2	33.41	8.2	23.6	0.60
I39	02 Oct 2017	2	19.65	84.97	8.2	33.42	8.2	23.6	0.59

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I39	02 Oct 2017	3	19.33	83.42	8.4	33.43	8.2	23.7	0.64
I39	02 Oct 2017	4	18.99	81.78	8.6	33.40	8.2	23.8	0.85
I39	02 Oct 2017	5	18.84	81.84	8.7	33.39	8.2	23.8	1.04
I39	02 Oct 2017	6	18.67	81.54	8.7	33.38	8.2	23.9	1.21
I39	02 Oct 2017	7	18.55	80.99	8.7	33.38	8.2	23.9	1.40
I39	02 Oct 2017	8	18.42	80.93	8.7	33.38	8.2	23.9	1.55
I39	02 Oct 2017	9	18.36	80.97	8.7	33.37	8.2	23.9	1.84
I39	02 Oct 2017	10	18.22	81.06	8.6	33.38	8.2	24.0	1.91
I39	02 Oct 2017	11	18.16	81.42	8.6	33.37	8.2	24.0	1.98
I39	02 Oct 2017	12	18.02	81.68	8.5	33.38	8.2	24.0	2.04
I39	02 Oct 2017	13	17.48	81.09	8.4	33.39	8.2	24.2	2.18
I39	02 Oct 2017	14	17.07	81.21	8.4	33.38	8.2	24.3	2.47
I39	02 Oct 2017	15	16.78	81.60	8.4	33.37	8.2	24.3	2.60
I39	02 Oct 2017	16	16.50	82.02	8.2	33.37	8.2	24.4	2.50
I39	02 Oct 2017	17	16.30	81.26	8.1	33.35	8.2	24.4	2.41
I39	02 Oct 2017	18	16.22	80.67	8.0	33.35	8.2	24.4	2.20
I39	10 Oct 2017	1	19.89	80.16	8.3	33.41	8.2	23.6	1.88
I39	10 Oct 2017	2	19.86	79.67	8.3	33.41	8.2	23.6	2.11
I39	10 Oct 2017	3	19.82	79.03	8.3	33.41	8.2	23.6	2.53
I39	10 Oct 2017	4	19.80	78.63	8.3	33.41	8.2	23.6	2.91
I39	10 Oct 2017	5	19.77	79.20	8.3	33.41	8.2	23.6	3.10
I39	10 Oct 2017	6	19.76	80.23	8.2	33.41	8.2	23.6	3.06
I39	10 Oct 2017	7	19.74	80.94	8.2	33.42	8.2	23.6	2.97
I39	10 Oct 2017	8	19.73	81.68	8.2	33.42	8.2	23.6	2.86
I39	10 Oct 2017	9	19.71	82.02	8.2	33.42	8.2	23.6	2.81
I39	10 Oct 2017	10	19.67	82.64	8.2	33.42	8.2	23.6	2.60
I39	10 Oct 2017	11	19.58	83.62	8.2	33.42	8.2	23.7	2.44
I39	10 Oct 2017	12	19.39	83.61	8.2	33.41	8.2	23.7	2.50
I39	10 Oct 2017	13	19.11	83.11	8.1	33.41	8.2	23.8	2.68
I39	10 Oct 2017	14	18.79	81.61	8.1	33.38	8.2	23.8	2.97
I39	10 Oct 2017	15	18.71	81.06	8.0	33.37	8.2	23.9	2.94
I39	10 Oct 2017	16	18.71	81.23	8.0	33.37	8.2	23.8	2.90
I39	10 Oct 2017	17	18.70	81.37	7.8	33.37	8.2	23.9	2.83
I39	10 Oct 2017	18	18.41	81.46	7.6	33.40	8.2	23.9	2.61
I39	17 Oct 2017	1	19.80	85.42	8.0	33.46	8.2	23.6	0.60
I39	17 Oct 2017	2	19.79	85.43	8.0	33.47	8.2	23.6	0.61
I39	17 Oct 2017	3	19.70	85.22	8.0	33.46	8.2	23.7	0.67
I39	17 Oct 2017	4	19.27	84.69	7.8	33.51	8.2	23.8	0.70
I39	17 Oct 2017	5	17.64	84.19	8.3	33.44	8.2	24.2	0.76
I39	17 Oct 2017	6	17.67	85.43	8.2	33.37	8.2	24.1	0.81
I39	17 Oct 2017	7	16.44	85.53	8.2	33.42	8.2	24.4	0.94
I39	17 Oct 2017	8	15.91	85.71	8.3	33.34	8.2	24.5	1.16
I39	17 Oct 2017	9	15.74	86.21	8.2	33.35	8.2	24.5	1.23
I39	17 Oct 2017	10	15.58	85.85	8.0	33.35	8.1	24.6	1.32
I39	17 Oct 2017	11	15.48	85.12	7.7	33.35	8.1	24.6	1.55
I39	17 Oct 2017	12	15.39	83.81	7.4	33.35	8.1	24.6	1.88
I39	17 Oct 2017	13	15.20	83.37	7.2	33.36	8.1	24.7	1.97
I39	17 Oct 2017	14	15.17	83.43	7.1	33.35	8.1	24.7	1.92
I39	17 Oct 2017	15	15.16	83.33	7.0	33.35	8.1	24.7	1.88
I39	17 Oct 2017	16	15.16	83.48	7.0	33.35	8.1	24.7	1.90
I39	17 Oct 2017	17	15.15	83.39	7.0	33.36	8.1	24.7	1.88
I39	17 Oct 2017	18	15.15	83.34	7.0	33.36	8.1	24.7	1.86

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I39	26 Oct 2017	1	18.01	81.50	8.1	33.44	8.1	24.1	0.82
I39	26 Oct 2017	2	17.99	81.41	8.1	33.43	8.1	24.1	0.81
I39	26 Oct 2017	3	17.95	81.49	8.1	33.44	8.1	24.1	0.81
I39	26 Oct 2017	4	17.61	81.87	8.1	33.45	8.1	24.2	0.86
I39	26 Oct 2017	5	17.17	84.09	8.1	33.42	8.1	24.3	0.85
I39	26 Oct 2017	6	17.08	85.10	8.1	33.39	8.1	24.3	0.84
I39	26 Oct 2017	7	16.98	84.85	8.2	33.39	8.1	24.3	0.88
I39	26 Oct 2017	8	16.90	85.26	8.1	33.39	8.1	24.3	0.93
I39	26 Oct 2017	9	16.76	85.33	8.1	33.39	8.1	24.3	1.04
I39	26 Oct 2017	10	16.65	84.98	8.1	33.38	8.1	24.4	1.22
I39	26 Oct 2017	11	16.52	85.36	8.1	33.38	8.1	24.4	1.23
I39	26 Oct 2017	12	16.43	85.61	8.1	33.38	8.1	24.4	1.24
I39	26 Oct 2017	13	16.35	85.80	8.1	33.37	8.1	24.4	1.29
I39	26 Oct 2017	14	16.29	85.87	8.1	33.37	8.1	24.4	1.29
I39	26 Oct 2017	15	16.13	86.39	8.1	33.37	8.1	24.5	1.25
I39	26 Oct 2017	16	16.04	86.85	8.0	33.36	8.1	24.5	1.20
I39	26 Oct 2017	17	15.55	86.60	7.8	33.40	8.1	24.6	1.33
I39	26 Oct 2017	18	14.94	84.81	7.7	33.35	8.1	24.7	1.64
I39	30 Oct 2017	1	18.18	83.90	8.3	33.39	8.2	24.0	1.41
I39	30 Oct 2017	2	18.18	84.40	8.3	33.39	8.2	24.0	1.46
I39	30 Oct 2017	3	18.17	84.99	8.2	33.40	8.2	24.0	1.48
I39	30 Oct 2017	4	18.02	85.38	8.2	33.40	8.2	24.0	1.52
I39	30 Oct 2017	5	17.79	85.88	8.3	33.39	8.2	24.1	1.34
I39	30 Oct 2017	6	17.74	86.65	8.3	33.38	8.2	24.1	1.24
I39	30 Oct 2017	7	17.72	86.71	8.3	33.38	8.2	24.1	1.25
I39	30 Oct 2017	8	17.69	86.66	8.3	33.38	8.2	24.1	1.25
I39	30 Oct 2017	9	17.62	86.88	8.3	33.38	8.2	24.1	1.24
I39	30 Oct 2017	10	17.54	87.31	8.3	33.38	8.2	24.1	1.24
I39	30 Oct 2017	11	17.38	87.08	8.3	33.38	8.2	24.2	1.30
I39	30 Oct 2017	12	17.26	87.15	8.3	33.38	8.2	24.2	1.33
I39	30 Oct 2017	13	17.22	87.19	8.3	33.37	8.2	24.2	1.37
I39	30 Oct 2017	14	17.16	87.09	8.2	33.38	8.2	24.2	1.40
I39	30 Oct 2017	15	16.97	85.43	8.1	33.38	8.1	24.3	1.41
I39	30 Oct 2017	16	16.76	78.80	8.0	33.37	8.1	24.3	1.65
I39	30 Oct 2017	17	16.73	75.35	8.0	33.37	8.1	24.3	1.36
I39	30 Oct 2017	18	16.71	72.59	8.0	33.36	8.1	24.3	1.34
I40	02 Oct 2017	1	19.90	85.27	8.2	33.41	8.2	23.6	0.54
I40	02 Oct 2017	2	19.90	85.26	8.2	33.41	8.2	23.6	0.55
I40	02 Oct 2017	3	19.90	85.22	8.2	33.42	8.2	23.6	0.57
I40	02 Oct 2017	4	19.88	85.07	8.2	33.42	8.2	23.6	0.57
I40	02 Oct 2017	5	19.87	84.59	8.1	33.42	8.2	23.6	0.69
I40	02 Oct 2017	6	19.87	84.38	8.1	33.42	8.2	23.6	0.81
I40	02 Oct 2017	7	19.85	84.11	8.1	33.42	8.2	23.6	0.87
I40	02 Oct 2017	8	19.82	82.15	8.1	33.41	8.2	23.6	0.97
I40	02 Oct 2017	9	19.81	77.52	8.1	33.41	8.2	23.6	1.07
I40	02 Oct 2017	10	19.80	73.10	8.0	33.41	8.2	23.6	1.11
I40	10 Oct 2017	1	20.08	70.78	8.4	33.39	8.2	23.5	2.24
I40	10 Oct 2017	2	20.05	70.76	8.4	33.39	8.2	23.5	2.33
I40	10 Oct 2017	3	19.97	70.70	8.3	33.39	8.2	23.5	2.75
I40	10 Oct 2017	4	19.84	70.73	8.1	33.40	8.2	23.6	3.06
I40	10 Oct 2017	5	19.77	70.61	7.9	33.39	8.2	23.6	2.97
I40	10 Oct 2017	6	19.71	70.01	7.8	33.39	8.2	23.6	2.82

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I40	10 Oct 2017	7	19.57	68.52	7.6	33.40	8.2	23.7	2.76
I40	10 Oct 2017	8	19.14	65.61	7.5	33.42	8.2	23.8	2.83
I40	10 Oct 2017	9	18.93	66.82	7.3	33.39	8.2	23.8	2.75
I40	10 Oct 2017	10	18.51	66.35	7.1	33.42	8.2	23.9	2.60
I40	17 Oct 2017	1	19.64	83.09	8.0	33.44	8.2	23.7	0.78
I40	17 Oct 2017	2	19.49	83.13	7.8	33.46	8.2	23.7	0.83
I40	17 Oct 2017	3	18.62	81.35	7.5	33.46	8.2	23.9	0.95
I40	17 Oct 2017	4	18.07	75.43	7.1	33.41	8.1	24.0	1.09
I40	17 Oct 2017	5	17.60	72.15	6.5	33.39	8.1	24.1	1.26
I40	17 Oct 2017	6	17.14	67.52	6.2	33.37	8.0	24.2	1.44
I40	17 Oct 2017	7	16.97	58.46	6.1	33.35	8.0	24.3	1.65
I40	17 Oct 2017	8	16.75	49.58	6.2	33.36	8.0	24.3	1.98
I40	17 Oct 2017	9	16.53	49.88	6.3	33.35	8.0	24.4	2.26
I40	17 Oct 2017	10	16.36	49.29	6.3	33.35	8.0	24.4	2.47
I40	26 Oct 2017	1	16.85	67.00	8.3	33.35	8.1	24.3	2.01
I40	26 Oct 2017	2	16.58	66.47	8.4	33.37	8.1	24.4	2.31
I40	26 Oct 2017	3	16.44	62.29	8.4	33.34	8.1	24.4	3.18
I40	26 Oct 2017	4	16.27	59.68	8.3	33.34	8.1	24.4	4.21
I40	26 Oct 2017	5	16.00	62.99	8.2	33.32	8.1	24.5	4.59
I40	26 Oct 2017	6	15.96	63.20	8.1	33.31	8.1	24.5	4.18
I40	26 Oct 2017	7	15.94	63.49	8.1	33.31	8.1	24.5	3.75
I40	26 Oct 2017	8	15.94	63.50	8.1	33.31	8.1	24.5	3.19
I40	26 Oct 2017	9	15.89	61.22	8.0	33.35	8.1	24.5	2.82
I40	26 Oct 2017	10	15.82	54.63	7.9	33.35	8.1	24.5	2.78
I40	30 Oct 2017	1	18.22	81.49	8.2	33.39	8.2	24.0	1.83
I40	30 Oct 2017	2	18.22	80.30	8.2	33.39	8.2	24.0	1.78
I40	30 Oct 2017	3	18.22	82.16	8.2	33.39	8.2	24.0	1.81
I40	30 Oct 2017	4	18.22	83.73	8.1	33.40	8.2	24.0	1.85
I40	30 Oct 2017	5	18.21	83.44	8.1	33.39	8.2	24.0	1.98
I40	30 Oct 2017	6	18.19	82.98	8.2	33.40	8.2	24.0	2.12
I40	30 Oct 2017	7	18.18	82.90	8.2	33.39	8.2	24.0	2.28
I40	30 Oct 2017	8	18.15	82.39	8.1	33.39	8.2	24.0	2.40
I40	30 Oct 2017	9	18.09	81.17	8.1	33.40	8.2	24.0	2.45
I40	30 Oct 2017	10	17.99	78.71	8.1	33.40	8.2	24.0	2.36

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* (Entero) are reported as CFU/100 mL.

Station	Date	Depth	Analyst	Procedure	Total	Fecal	Entero
I19	02 Oct 2017	6	AR	LAB DUPLICATE	180e	8e	36e
I19	10 Oct 2017	6	ZV	LAB DUPLICATE	<20	2e	12e
I19	17 Oct 2017	6	JT	LAB DUPLICATE	<2	<2	<2
I19	26 Oct 2017	6	JT	LAB DUPLICATE	14000	700	1200e
I19	30 Oct 2017	6	ZV	LAB DUPLICATE	2e	<2	<2
I40	02 Oct 2017	6	AR	LAB DUPLICATE	<2	<2	<2
I40	10 Oct 2017	6	AE	LAB DUPLICATE	12e	<2	6e
I40	17 Oct 2017	6	JT	LAB DUPLICATE	<20	<2	<2
I40	26 Oct 2017	6	JT	LAB DUPLICATE	340e	34e	68
I40	30 Oct 2017	6	ZV	LAB DUPLICATE	<2	<2	<2
S12	03 Oct 2017		AE	FIELD DUPLICATE	2e	2e	2e
S12	03 Oct 2017		AE	LAB DUPLICATE	2e	2e	2e
S12	10 Oct 2017		JT	FIELD DUPLICATE	6e	<2	6e
S12	10 Oct 2017		JT	LAB DUPLICATE	8e	<2	<2
S12	17 Oct 2017		JT	FIELD DUPLICATE	<20	<2	6e
S12	17 Oct 2017		JT	LAB DUPLICATE	<20	4e	4e
S12	24 Oct 2017		AR	FIELD DUPLICATE	<20	<2	<2
S12	24 Oct 2017		AR	LAB DUPLICATE	<20	<2	2e
S12	31 Oct 2017		AE	FIELD DUPLICATE	<20	<2	<2
S12	31 Oct 2017		AE	LAB DUPLICATE	<20	<2	<2

ns = not sampled
ND = no data

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