



Monthly Receiving Waters Monitoring Report for the South Bay Ocean Outfall

(South Bay Water Reclamation Plant)
NPDES Permit No. CA0109045

April 2015



City of San Diego
Ocean Monitoring Program
Public Utilities Department
Environmental Monitoring and Technical Services Division



THE CITY OF SAN DIEGO

May 31, 2015

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

Attention: POTW Compliance Unit

Dear Mr. Gibson:

Enclosed is the April 2015 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 Public Utilities Director

TDS:mln

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



Environmental Monitoring and Technical Services Division • Public Utilities

2392 Kincaid Road • San Diego, CA 92101-0811

Tel (619) 758-2300 Fax (619) 758-2309



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 S8–12).

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 stations (I19, I24, I25, I26, I32, I39, I40) were sampled according to NPDES permit specifications in order to monitor water quality compliance within a kelp bed-suitable area. The seven kelp stations 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 seven stations are only occasionally located within an area where kelp is actually found. 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.

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.

All water samples were collected using Van Dorn bottles arrayed at the required depths and messenger-tripped in series. 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, Seasoftware, 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. However, it should be noted that the CTD measurements and bacteriological samples were taken from separate hydrocasts.

Offshore Stations

Quarterly offshore water quality sampling was 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 three 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 chromomorphoc dissolved organic matter (CDOM). Visual observations of weather and water conditions were also recorded at all stations. Seawater samples for the analysis of indicator bacteria, suspended solids, and oil and grease concentrations were collected at 28 of the stations.

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

Bacteriological Reporting and Quality Assurance

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

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

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

- (1) Total coliform density shall not exceed 1000 CFU/100 mL;
- (2) Fecal coliform density shall not exceed 200 CFU/100 mL;

^[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.

- (3) *Enterococcus* density shall not exceed 35 CFU/100 mL.

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 2015 Quality Assurance Report, which will be completed in March 2016.

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 April, one of the eight shore stations located north of the border were out of compliance with various California Ocean Plan (Ocean Plan) water contact standards (see below); these standards do not apply to stations located in Mexican waters.
 - The 30-day geometric mean standard for *Enterococcus* was exceeded at station S5 on April 1.

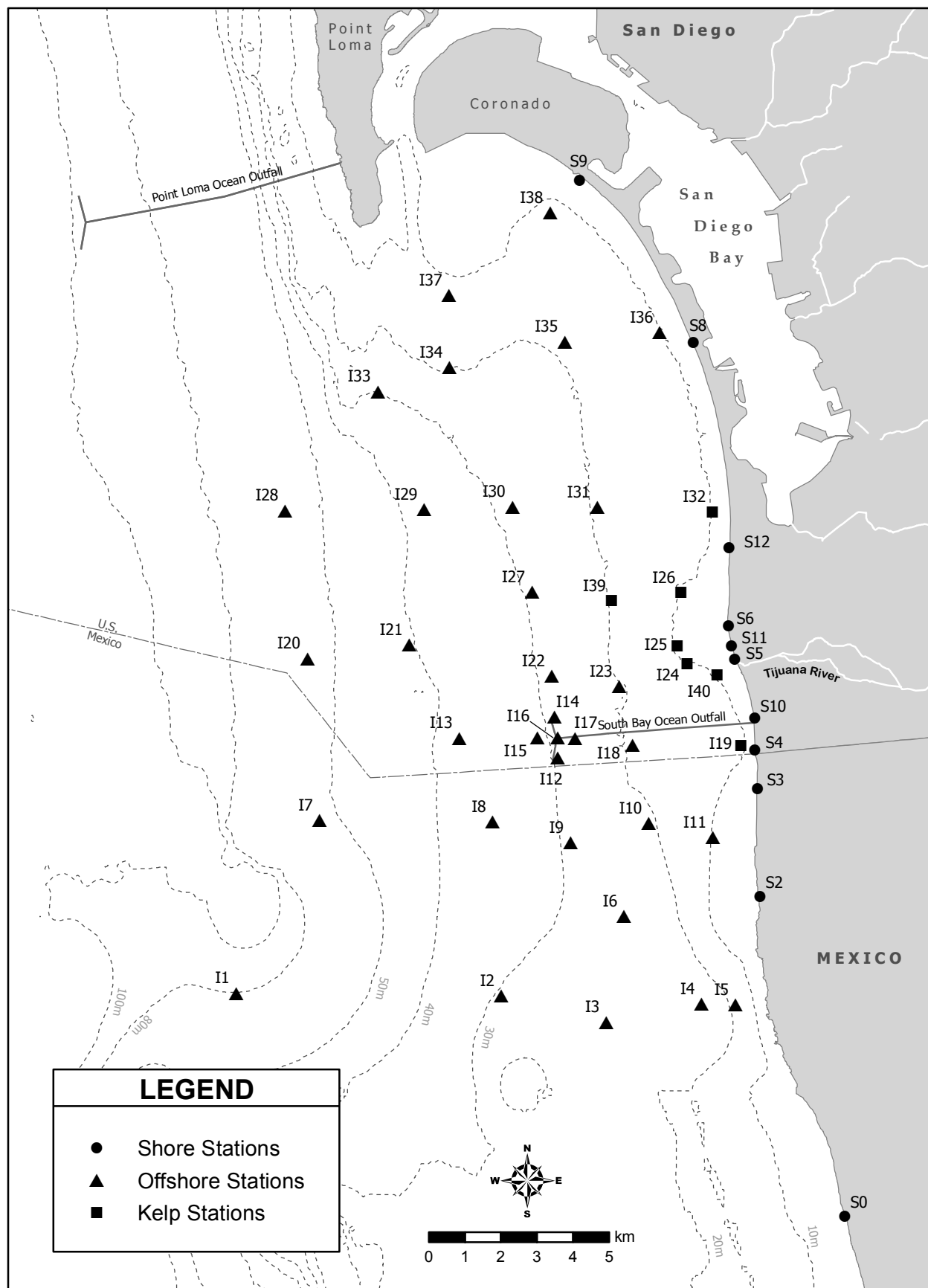
- o Although the Ocean Plan standards do not apply to these stations, bacteria densities exceeded one or more benchmark levels (i.e., total coliforms >10,000 CFU/100mL; fecal coliforms >400 CFU/100 mL; *Enterococcus* >104 CFU/100 mL; total >1000 CFU/100 mL & F:T ratio >0.1) in the seawater sample collected at station S0 on April 7.
- o Historical analyses of Ocean Plan compliance rates for the South Bay outfall shoreline 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 *Annual Receiving Waters Monitoring Report for the South Bay Ocean Outfall* for details (<http://www.sandiego.gov/mwwd/environment/reports.shtml>).
- o Notable visual observations for April included: water flowing from a storm drain at stations S0, S2 and S3. These observations were made on one or more days during the month.

➤ **Kelp Bed Water Quality Sampling**

- o The seven kelp bed water quality stations (I19, I24, I25, I26, I32, I39, I40) were sampled five times during April (i.e. April 2, 10, 15, 21, 28).
- o During April, all seven of these stations were in compliance with all Ocean Plan standards.
- o Water column temperatures ranged from 11.38 to 18.22°C. The difference between surface and bottom waters ranged from approximately 0.14 to 5.29°C, indicating the water column was stratified at these sites.
- o Chlorophyll *a* concentrations ranged from 0.38 to 19.26 µg/L at these stations, suggesting the presence of phytoplankton blooms during the month.
- o Nothing of sewage origin was observed at any of the kelp bed stations.

➤ **Offshore Water Quality Sampling**

- o Quarterly sampling was not conducted during April at the offshore stations. The next quarterly sampling is scheduled for May 2015.



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SHORE STATIONS

Table 2.1

Summary of compliance with the 2012 Ocean Plan's 30-day Geometric Mean standard for total coliforms at the SBOO shore stations located north of the USA/Mexico border. 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 >1000 CFU/100 mL exceed the standard.

Date	S4	S5	S6	S8	S9	S10	S11	S12
01 Apr 2015	22	381	62	54	50	13	206	142
02 Apr 2015	19*	223	29	18*	24*	9*	86	55
03 Apr 2015	19*	223	29	18*	24*	9*	86	55
04 Apr 2015	19*	174	16*	18*	24*	9*	72*	28*
05 Apr 2015	19*	174	16*	18*	24*	9*	72*	28*
06 Apr 2015	19*	174	16*	18*	24*	9*	72*	28*
07 Apr 2015	12	92	11	11	14	7	35	19
08 Apr 2015	12	92	11	11	14	7	35	19
09 Apr 2015	11*	55	9*	15*	13*	6*	12*	19*
10 Apr 2015	11*	55	9*	15*	13*	6*	12*	19*
11 Apr 2015	11*	26	9*	15*	13*	6*	12*	19*
12 Apr 2015	11*	16*	9*	15*	13*	6*	12*	19*
13 Apr 2015	11*	16*	9*	15*	13*	6*	12*	19*
14 Apr 2015	9	11	8	13	14	5	10	12
15 Apr 2015	9	11	8	13	14	5	10	12
16 Apr 2015	9*	9*	8*	9*	11*	4*	11*	9*
17 Apr 2015	9*	9*	8*	9*	11*	4*	11*	9*
18 Apr 2015	9*	9*	8*	9*	11*	4*	11*	9*
19 Apr 2015	9*	9*	8*	9*	11*	4*	11*	9*
20 Apr 2015	9*	9*	8*	9*	11*	4*	11*	9*
21 Apr 2015	11	13	9	11	13	6	12	12
22 Apr 2015	11	13	9	11	13	6	12	12
23 Apr 2015	9*	12*	8*	9*	11*	8*	11*	11*
24 Apr 2015	9*	12*	8*	9*	11*	8*	11*	11*
25 Apr 2015	9*	12*	8*	9*	11*	8*	11*	11*
26 Apr 2015	9*	12*	8*	9*	11*	8*	11*	11*
27 Apr 2015	9*	12*	8*	9*	11*	8*	11*	11*
28 Apr 2015	11	11	9	7	13	9	12	8
29 Apr 2015	8*	7*	8*	5*	11*	6*	8*	5*
30 Apr 2015	8*	7*	8*	5*	11*	6*	8*	5*

* Geometric mean calculated using an n<5

Table 2.2

Summary of compliance with the 2012 Ocean Plan's 30-day Geometric Mean standard for fecal coliform at the SBOO shore stations located north of the USA/Mexico border. 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 Apr 2015	6	77	13	9	5	4	45	35
02 Apr 2015	5*	37	6	3*	3*	3*	14	14
03 Apr 2015	5*	37	6	3*	3*	3*	14	14
04 Apr 2015	5*	33	6*	3*	3*	3*	12*	7*
05 Apr 2015	5*	33	6*	3*	3*	3*	12*	7*
06 Apr 2015	5*	33	6*	3*	3*	3*	12*	7*
07 Apr 2015	4	22	5	3	2	3	9	5
08 Apr 2015	4	22	5	3	2	3	9	5
09 Apr 2015	4*	14	6*	3*	3*	2*	4*	6*
10 Apr 2015	4*	14	6*	3*	3*	2*	4*	6*
11 Apr 2015	4*	7	6*	3*	3*	2*	4*	6*
12 Apr 2015	4*	4*	6*	3*	3*	2*	4*	6*
13 Apr 2015	4*	4*	6*	3*	3*	2*	4*	6*
14 Apr 2015	4	4	5	3	3	2	3	5
15 Apr 2015	4	4	5	3	3	2	3	5
16 Apr 2015	3*	4*	4*	2*	3*	2*	4*	3*
17 Apr 2015	3*	4*	4*	2*	3*	2*	4*	3*
18 Apr 2015	3*	4*	4*	2*	3*	2*	4*	3*
19 Apr 2015	3*	4*	4*	2*	3*	2*	4*	3*
20 Apr 2015	3*	4*	4*	2*	3*	2*	4*	3*
21 Apr 2015	3	5	3	2	3	2	3	5
22 Apr 2015	3	5	3	2	3	2	3	5
23 Apr 2015	3*	6*	3*	2*	3*	2*	4*	6*
24 Apr 2015	3*	6*	3*	2*	3*	2*	4*	6*
25 Apr 2015	3*	6*	3*	2*	3*	2*	4*	6*
26 Apr 2015	3*	6*	3*	2*	3*	2*	4*	6*
27 Apr 2015	3*	6*	3*	2*	3*	2*	4*	6*
28 Apr 2015	3	5	4	2	3	2	3	5
29 Apr 2015	2*	3*	3*	2*	3*	3*	2*	4*
30 Apr 2015	2*	3*	3*	2*	3*	3*	2*	4*

* Geometric mean calculated using an n<5

Table 2.3

Summary of compliance with the 2012 Ocean Plan's 30-day Geometric Mean standard for *Enterococcus* at the SBOO shore stations located north of the USA/Mexico border. 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 Apr 2015	7	57	11	11	7	8	33	25
02 Apr 2015	5*	19	6	6	3	5*	12	10
03 Apr 2015	5*	19	6	6	3	5*	12	10
04 Apr 2015	5*	14*	4*	3	4*	5*	8*	6
05 Apr 2015	5*	14*	4*	3	4*	5*	8*	6
06 Apr 2015	5*	14*	4*	4*	4*	5*	8*	5*
07 Apr 2015	4	11	3	3	3	4	6	4
08 Apr 2015	4	11	3	3	3	4	6	4
09 Apr 2015	5*	8*	4*	4*	4*	4*	4*	5*
10 Apr 2015	5*	8*	4*	4*	4*	4*	4*	5*
11 Apr 2015	5*	8*	4*	4*	4*	4*	4*	5*
12 Apr 2015	5*	8*	4*	4*	4*	4*	4*	5*
13 Apr 2015	5*	8*	4*	4*	4*	4*	4*	5*
14 Apr 2015	4	6	3	3	3	3	4	4
15 Apr 2015	4	6	3	3	3	3	4	4
16 Apr 2015	3*	5*	3*	2*	2*	3*	4*	2*
17 Apr 2015	3*	5*	3*	2*	2*	3*	4*	2*
18 Apr 2015	3*	5*	3*	2*	2*	3*	4*	2*
19 Apr 2015	3*	5*	3*	2*	2*	3*	4*	2*
20 Apr 2015	3*	5*	3*	2*	2*	3*	4*	2*
21 Apr 2015	3	5	3	2	2	2	3	2
22 Apr 2015	3	5	3	2	2	2	3	2
23 Apr 2015	3*	7*	3*	2*	2*	2*	4*	2*
24 Apr 2015	3*	7*	3*	2*	2*	2*	4*	2*
25 Apr 2015	3*	7*	3*	2*	2*	2*	4*	2*
26 Apr 2015	3*	7*	3*	2*	2*	2*	4*	2*
27 Apr 2015	3*	7*	3*	2*	2*	2*	4*	2*
28 Apr 2015	3	5	3	2	2	2	3	2
29 Apr 2015	2*	4*	2*	2*	2*	2*	2*	2*
30 Apr 2015	2*	4*	2*	2*	2*	2*	2*	2*

* Geometric mean calculated using an n<5

Table 2.4

Summary of compliance at the SBOO shore stations located north of the USA/Mexico border with the 2012 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
07 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
14 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
21 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
28 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 2.5

Summary of compliance at the SBOO shore stations located north of the USA/Mexico border with the 2012 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
07 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
14 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
21 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
28 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 2.6

Summary of compliance at the SBOO shore stations located north of the USA/Mexico border with the 2012 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
07 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
14 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
21 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
28 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 2.7

Summary of compliance at the SBOO shore stations located north of the USA/Mexico border with the 2012 Ocean Plan's Single Sample Maximum standard for total coliforms 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
07 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
14 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
21 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC
28 Apr 2015	IC	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 2.8

Concentrations of total coliform (Total), fecal coliform (Fecal), *Enterococcus* (Entero) and the fecal:total coliform ratio (F:T) at each SBOO shore station by sample date. Densities are reported as CFU/100 mL; F:T is unitless. Comments follow the data summary.

Station	Date	Time	Total	Fecal	Entero	F:T
S0	07 Apr 2015	1124	3400e	240e	280e	0.07
S0	14 Apr 2015	1110	<2	<2	<2	1.00
S0	21 Apr 2015	1058	420	68	38e	0.16
S0	28 Apr 2015	1055	1100	74	34e	0.07
S2	07 Apr 2015	955	2e	<2	<2	1.00
S2	14 Apr 2015	900	<2	<2	10e	1.00
S2	21 Apr 2015	912	4e	6e	<2	1.50
S2	28 Apr 2015	900	2e	<2	<2	1.00
S3	07 Apr 2015	1038	<2	<2	2e	1.00
S3	14 Apr 2015	942	<2	<2	<2	1.00
S3	21 Apr 2015	950	20e	<2	<2	0.10
S3	28 Apr 2015	932	<20	<2	2e	0.10
S4	07 Apr 2015	1102	<2	<2	<2	1.00
S4	14 Apr 2015	813	4e	2e	<2	0.50
S4	21 Apr 2015	1107	<20	<2	<2	0.10
S4	28 Apr 2015	1046	<20	<2	<2	0.10
S5	07 Apr 2015	914	2e	2e	4e	1.00
S5	14 Apr 2015	723	<2	<2	2e	1.00
S5	21 Apr 2015	855	60e	6e	10e	0.10
S5	28 Apr 2015	909	10e	2e	2e	0.20
S6	07 Apr 2015	927	<2	<2	2e	1.00
S6	14 Apr 2015	747	4e	<2	<2	0.50
S6	21 Apr 2015	910	20e	2e	4e	0.10
S6	28 Apr 2015	924	<20	16e	<2	0.80
S8	07 Apr 2015	815	<2	<2	<2	1.00
S8	14 Apr 2015	709	8e	<2	2e	0.25
S8	21 Apr 2015	820	<20	<2	<2	0.10
S8	28 Apr 2015	755	<2	<2	<2	1.00
S9	07 Apr 2015	756	2e	<2	2e	1.00
S9	14 Apr 2015	650	<20	6e	2e	0.30
S9	21 Apr 2015	800	20e	6e	<2	0.30
S9	28 Apr 2015	734	<20	<2	<2	0.10
S10	07 Apr 2015	1111	<2	<2	<2	1.00
S10	14 Apr 2015	756	2e	<2	<2	1.00
S10	21 Apr 2015	1112	<20	<2	<2	0.10
S10	28 Apr 2015	1051	<20	6e	<2	0.30
S11	07 Apr 2015	923	<2	<2	<2	1.00
S11	14 Apr 2015	736	6e	<2	<2	0.33
S11	21 Apr 2015	906	<20	2e	<2	0.10
S11	28 Apr 2015	921	<20	2e	<2	0.10

Station	Date	Time	Total	Fecal	Enteroc	F:T
S12	07 Apr 2015	943	4e	<2	<2	0.50
S12	14 Apr 2015	825	<2	<2	2e	1.00
S12	21 Apr 2015	923	40e	<20	<2	0.50
S12	28 Apr 2015	935	<2	<2	<2	1.00

ns = not sampled

Table 2.9

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

Station	Date	Parameter	Value
S0	07 Apr 2015	Arrive Time	1124
S0	07 Apr 2015	Weather	Sunny
S0	07 Apr 2015	Wind Speed (kts)	2.9
S0	07 Apr 2015	Wind Dir	NE
S0	07 Apr 2015	Animal Life	15 Shorebirds
S0	07 Apr 2015	Floatables	None
S0	07 Apr 2015	Water Color	Green
S0	07 Apr 2015	Current Direction	N
S0	07 Apr 2015	Water Temp (C)	15
S0	07 Apr 2015	Wave Height Low (ft)	3
S0	07 Apr 2015	High Tide (ft)	3.6
S0	07 Apr 2015	High Tide Time	1141
S0	07 Apr 2015	Low Tide (ft)	0.1
S0	07 Apr 2015	Low Tide Time	539
S0	07 Apr 2015	Comments	Kelp; 1 Person; Water clear; Flow from stormdrain 0.5 L/sec
S0	14 Apr 2015	Arrive Time	1110
S0	14 Apr 2015	Weather	Sunny
S0	14 Apr 2015	Wind Speed (kts)	3.8
S0	14 Apr 2015	Wind Dir	NE
S0	14 Apr 2015	Animal Life	5 Shorebirds
S0	14 Apr 2015	Floatables	None
S0	14 Apr 2015	Water Color	Green
S0	14 Apr 2015	Current Direction	N
S0	14 Apr 2015	Water Temp (C)	18
S0	14 Apr 2015	Wave Height Low (ft)	4
S0	14 Apr 2015	High Tide (ft)	4.7
S0	14 Apr 2015	High Tide Time	608
S0	14 Apr 2015	Low Tide (ft)	-0.3
S0	14 Apr 2015	Low Tide Time	1253
S0	14 Apr 2015	Comments	Kelp; Water clear; Flow from stormdrain 0.5 L/sec
S0	21 Apr 2015	Arrive Time	1058
S0	21 Apr 2015	Weather	Sunny
S0	21 Apr 2015	Wind Speed (kts)	1.2
S0	21 Apr 2015	Wind Dir	NE
S0	21 Apr 2015	Animal Life	15 Shorebirds; 1 Dog
S0	21 Apr 2015	Floatables	None
S0	21 Apr 2015	Water Color	Green
S0	21 Apr 2015	Current Direction	N

Station	Date	Parameter	Value
S0	21 Apr 2015	Water Temp (C)	16
S0	21 Apr 2015	Wave Height Low (ft)	4
S0	21 Apr 2015	High Tide (ft)	3.9
S0	21 Apr 2015	High Tide Time	1211
S0	21 Apr 2015	Low Tide (ft)	-0.8
S0	21 Apr 2015	Low Tide Time	556
S0	21 Apr 2015	Comments	Kelp; 2 Persons; Water clear; Flow from stormdrain 0.5 L/sec
S0	28 Apr 2015	Arrive Time	1055
S0	28 Apr 2015	Weather	Sunny
S0	28 Apr 2015	Wind Speed (kts)	1.1
S0	28 Apr 2015	Wind Dir	N
S0	28 Apr 2015	Animal Life	5 Shorebirds; 1 Dog
S0	28 Apr 2015	Floatables	None
S0	28 Apr 2015	Water Color	Green
S0	28 Apr 2015	Current Direction	N
S0	28 Apr 2015	Water Temp (C)	16.5
S0	28 Apr 2015	Wave Height Low (ft)	3
S0	28 Apr 2015	High Tide (ft)	3.8
S0	28 Apr 2015	High Tide Time	623
S0	28 Apr 2015	Low Tide (ft)	0.6
S0	28 Apr 2015	Low Tide Time	1251
S0	28 Apr 2015	Comments	Kelp; 2 Persons; Water clear; Flow from stormdrain 0.5 L/sec
S2	07 Apr 2015	Arrive Time	955
S2	07 Apr 2015	Weather	Sunny
S2	07 Apr 2015	Wind Speed (kts)	3
S2	07 Apr 2015	Wind Dir	NE
S2	07 Apr 2015	Animal Life	15 Shorebirds
S2	07 Apr 2015	Floatables	None
S2	07 Apr 2015	Water Color	Green
S2	07 Apr 2015	Current Direction	W
S2	07 Apr 2015	Water Temp (C)	15.5
S2	07 Apr 2015	Wave Height Low (ft)	3
S2	07 Apr 2015	High Tide (ft)	3.6
S2	07 Apr 2015	High Tide Time	1141
S2	07 Apr 2015	Low Tide (ft)	0.1
S2	07 Apr 2015	Low Tide Time	539
S2	07 Apr 2015	Comments	Kelp; 5 Persons; Water clear; No flow from stormdrain; Trash on the beach
S2	14 Apr 2015	Arrive Time	900
S2	14 Apr 2015	Weather	Sunny
S2	14 Apr 2015	Wind Speed (kts)	4
S2	14 Apr 2015	Wind Dir	NE

Station	Date	Parameter	Value
S2	14 Apr 2015	Animal Life	10 Shorebirds
S2	14 Apr 2015	Floatables	None
S2	14 Apr 2015	Water Color	Green
S2	14 Apr 2015	Current Direction	NE
S2	14 Apr 2015	Water Temp (C)	18
S2	14 Apr 2015	Wave Height Low (ft)	3
S2	14 Apr 2015	High Tide (ft)	4.7
S2	14 Apr 2015	High Tide Time	608
S2	14 Apr 2015	Low Tide (ft)	-0.3
S2	14 Apr 2015	Low Tide Time	1253
S2	14 Apr 2015	Comments	Kelp; 5 Persons; Water clear; Flow from stormdrain 0.5 L/sec
S2	21 Apr 2015	Arrive Time	912
S2	21 Apr 2015	Weather	Sunny
S2	21 Apr 2015	Wind Speed (kts)	1.6
S2	21 Apr 2015	Wind Dir	NE
S2	21 Apr 2015	Animal Life	15 Shorebirds
S2	21 Apr 2015	Floatables	None
S2	21 Apr 2015	Water Color	Green
S2	21 Apr 2015	Current Direction	N
S2	21 Apr 2015	Water Temp (C)	16
S2	21 Apr 2015	Wave Height Low (ft)	3
S2	21 Apr 2015	High Tide (ft)	3.9
S2	21 Apr 2015	High Tide Time	1211
S2	21 Apr 2015	Low Tide (ft)	-0.8
S2	21 Apr 2015	Low Tide Time	556
S2	21 Apr 2015	Comments	Kelp; 5 Persons; Water clear; No flow from stormdrain; Trash
S2	28 Apr 2015	Arrive Time	900
S2	28 Apr 2015	Weather	Sunny
S2	28 Apr 2015	Wind Speed (kts)	1.1
S2	28 Apr 2015	Wind Dir	NE
S2	28 Apr 2015	Animal Life	5 Shorebirds
S2	28 Apr 2015	Floatables	None
S2	28 Apr 2015	Water Color	Green
S2	28 Apr 2015	Current Direction	NE
S2	28 Apr 2015	Water Temp (C)	17
S2	28 Apr 2015	Wave Height Low (ft)	3
S2	28 Apr 2015	High Tide (ft)	3.8
S2	28 Apr 2015	High Tide Time	623
S2	28 Apr 2015	Low Tide (ft)	0.6
S2	28 Apr 2015	Low Tide Time	1251
S2	28 Apr 2015	Comments	Kelp; Water clear; No flow from stormdrain
S3	07 Apr 2015	Arrive Time	1038

Station	Date	Parameter	Value
S3	07 Apr 2015	Weather	Sunny
S3	07 Apr 2015	Wind Speed (kts)	1.7
S3	07 Apr 2015	Wind Dir	NE
S3	07 Apr 2015	Animal Life	15 Shorebirds; 1 Seal
S3	07 Apr 2015	Floatables	None
S3	07 Apr 2015	Water Color	Green
S3	07 Apr 2015	Current Direction	W
S3	07 Apr 2015	Water Temp (C)	15
S3	07 Apr 2015	Wave Height Low (ft)	3
S3	07 Apr 2015	High Tide (ft)	3.6
S3	07 Apr 2015	High Tide Time	1141
S3	07 Apr 2015	Low Tide (ft)	0.1
S3	07 Apr 2015	Low Tide Time	539
S3	07 Apr 2015	Comments	Kelp; 5 Persons; 5 Surfers; Water clear; No flow from stormdrain
S3	14 Apr 2015	Arrive Time	942
S3	14 Apr 2015	Weather	Sunny
S3	14 Apr 2015	Wind Speed (kts)	1.1
S3	14 Apr 2015	Wind Dir	NE
S3	14 Apr 2015	Animal Life	3 Dogs
S3	14 Apr 2015	Floatables	None
S3	14 Apr 2015	Water Color	Green
S3	14 Apr 2015	Current Direction	NE
S3	14 Apr 2015	Water Temp (C)	18
S3	14 Apr 2015	Wave Height Low (ft)	3
S3	14 Apr 2015	High Tide (ft)	4.7
S3	14 Apr 2015	High Tide Time	608
S3	14 Apr 2015	Low Tide (ft)	-0.3
S3	14 Apr 2015	Low Tide Time	1253
S3	14 Apr 2015	Comments	Kelp; 9 Persons; 5 Surfers; Water clear; Flow from stormdrain 0.5 L/sec
S3	21 Apr 2015	Arrive Time	950
S3	21 Apr 2015	Weather	Sunny
S3	21 Apr 2015	Wind Speed (kts)	1.3
S3	21 Apr 2015	Wind Dir	NE
S3	21 Apr 2015	Animal Life	15 Shorebirds
S3	21 Apr 2015	Floatables	None
S3	21 Apr 2015	Water Color	Green
S3	21 Apr 2015	Current Direction	NE
S3	21 Apr 2015	Water Temp (C)	16
S3	21 Apr 2015	Wave Height Low (ft)	4
S3	21 Apr 2015	High Tide (ft)	3.9
S3	21 Apr 2015	High Tide Time	1211
S3	21 Apr 2015	Low Tide (ft)	-0.8
S3	21 Apr 2015	Low Tide Time	556

Station	Date	Parameter	Value
S3	21 Apr 2015	Comments	Kelp; 5 Persons; 2 Surfers; Water clear; No flow from stormdrain
S3	28 Apr 2015	Arrive Time	932
S3	28 Apr 2015	Weather	Sunny
S3	28 Apr 2015	Wind Speed (kts)	0.6
S3	28 Apr 2015	Wind Dir	SE
S3	28 Apr 2015	Animal Life	5 Shorebirds; 1 Dog
S3	28 Apr 2015	Floatables	None
S3	28 Apr 2015	Water Color	Green
S3	28 Apr 2015	Current Direction	N
S3	28 Apr 2015	Water Temp (C)	17
S3	28 Apr 2015	Wave Height Low (ft)	3
S3	28 Apr 2015	High Tide (ft)	3.8
S3	28 Apr 2015	High Tide Time	623
S3	28 Apr 2015	Low Tide (ft)	0.6
S3	28 Apr 2015	Low Tide Time	1251
S3	28 Apr 2015	Comments	Kelp; 2 Persons; 2 Surfers; Water clear; Flow from stormdrain 0.2 L/sec
S4	07 Apr 2015	Arrive Time	1102
S4	07 Apr 2015	Weather	Sunny
S4	07 Apr 2015	Wind Speed (kts)	3.8
S4	07 Apr 2015	Wind Dir	W
S4	07 Apr 2015	Animal Life	None
S4	07 Apr 2015	Floatables	None
S4	07 Apr 2015	Water Color	Green
S4	07 Apr 2015	Current Direction	W
S4	07 Apr 2015	Water Temp (C)	16.4
S4	07 Apr 2015	Wave Height Low (ft)	3
S4	07 Apr 2015	High Tide (ft)	3.6
S4	07 Apr 2015	High Tide Time	1141
S4	07 Apr 2015	Low Tide (ft)	0.1
S4	07 Apr 2015	Low Tide Time	539
S4	07 Apr 2015	Comments	Seagrass; Water clear
S4	14 Apr 2015	Arrive Time	813
S4	14 Apr 2015	Weather	Cloudy
S4	14 Apr 2015	Wind Speed (kts)	4.8
S4	14 Apr 2015	Wind Dir	NW
S4	14 Apr 2015	Animal Life	None
S4	14 Apr 2015	Floatables	None
S4	14 Apr 2015	Water Color	Green
S4	14 Apr 2015	Current Direction	NW
S4	14 Apr 2015	Water Temp (C)	16.6
S4	14 Apr 2015	Wave Height Low (ft)	2
S4	14 Apr 2015	High Tide (ft)	4.7

Station	Date	Parameter	Value
S4	14 Apr 2015	High Tide Time	608
S4	14 Apr 2015	Low Tide (ft)	-0.3
S4	14 Apr 2015	Low Tide Time	1253
S4	14 Apr 2015	Comments	Water clear
S4	21 Apr 2015	Arrive Time	1107
S4	21 Apr 2015	Weather	Sunny
S4	21 Apr 2015	Wind Speed (kts)	4.4
S4	21 Apr 2015	Wind Dir	W
S4	21 Apr 2015	Animal Life	None
S4	21 Apr 2015	Floatables	None
S4	21 Apr 2015	Water Color	Green
S4	21 Apr 2015	Current Direction	N
S4	21 Apr 2015	Water Temp (C)	17.4
S4	21 Apr 2015	Wave Height Low (ft)	3
S4	21 Apr 2015	High Tide (ft)	3.9
S4	21 Apr 2015	High Tide Time	1211
S4	21 Apr 2015	Low Tide (ft)	-0.8
S4	21 Apr 2015	Low Tide Time	556
S4	21 Apr 2015	Comments	Kelp; Seagrass; Water clear
S4	28 Apr 2015	Arrive Time	1046
S4	28 Apr 2015	Weather	Sunny
S4	28 Apr 2015	Wind Speed (kts)	4.4
S4	28 Apr 2015	Wind Dir	N
S4	28 Apr 2015	Animal Life	None
S4	28 Apr 2015	Floatables	None
S4	28 Apr 2015	Water Color	Green
S4	28 Apr 2015	Current Direction	N
S4	28 Apr 2015	Water Temp (C)	17.6
S4	28 Apr 2015	Wave Height Low (ft)	3
S4	28 Apr 2015	High Tide (ft)	3.8
S4	28 Apr 2015	High Tide Time	623
S4	28 Apr 2015	Low Tide (ft)	0.6
S4	28 Apr 2015	Low Tide Time	1251
S4	28 Apr 2015	Comments	Water clear
S5	07 Apr 2015	Arrive Time	914
S5	07 Apr 2015	Weather	Sunny
S5	07 Apr 2015	Wind Speed (kts)	1.3
S5	07 Apr 2015	Wind Dir	W
S5	07 Apr 2015	Animal Life	None
S5	07 Apr 2015	Floatables	None
S5	07 Apr 2015	Water Color	Green
S5	07 Apr 2015	Current Direction	N
S5	07 Apr 2015	Water Temp (C)	17
S5	07 Apr 2015	Wave Height Low (ft)	2

Station	Date	Parameter	Value
S5	07 Apr 2015	High Tide (ft)	3.6
S5	07 Apr 2015	High Tide Time	1141
S5	07 Apr 2015	Low Tide (ft)	0.1
S5	07 Apr 2015	Low Tide Time	539
S5	07 Apr 2015	Comments	Kelp; Water clear
S5	14 Apr 2015	Arrive Time	723
S5	14 Apr 2015	Weather	Overcast
S5	14 Apr 2015	Wind Speed (kts)	1.4
S5	14 Apr 2015	Wind Dir	NW
S5	14 Apr 2015	Animal Life	None
S5	14 Apr 2015	Floatables	None
S5	14 Apr 2015	Water Color	Green
S5	14 Apr 2015	Current Direction	N
S5	14 Apr 2015	Water Temp (C)	14.4
S5	14 Apr 2015	Wave Height Low (ft)	3
S5	14 Apr 2015	High Tide (ft)	4.7
S5	14 Apr 2015	High Tide Time	608
S5	14 Apr 2015	Low Tide (ft)	-0.3
S5	14 Apr 2015	Low Tide Time	1253
S5	14 Apr 2015	Comments	Kelp; Water clear
S5	21 Apr 2015	Arrive Time	855
S5	21 Apr 2015	Weather	Cloudy
S5	21 Apr 2015	Wind Speed (kts)	0.7
S5	21 Apr 2015	Wind Dir	E
S5	21 Apr 2015	Animal Life	20 Shorebirds
S5	21 Apr 2015	Floatables	None
S5	21 Apr 2015	Water Color	Green
S5	21 Apr 2015	Current Direction	N
S5	21 Apr 2015	Water Temp (C)	17.2
S5	21 Apr 2015	Wave Height Low (ft)	3
S5	21 Apr 2015	High Tide (ft)	3.9
S5	21 Apr 2015	High Tide Time	1211
S5	21 Apr 2015	Low Tide (ft)	-0.8
S5	21 Apr 2015	Low Tide Time	556
S5	21 Apr 2015	Comments	Kelp; Seagrass; Water clear
S5	28 Apr 2015	Arrive Time	909
S5	28 Apr 2015	Weather	Sunny
S5	28 Apr 2015	Wind Speed (kts)	2.9
S5	28 Apr 2015	Wind Dir	SE
S5	28 Apr 2015	Animal Life	None
S5	28 Apr 2015	Floatables	None
S5	28 Apr 2015	Water Color	Green
S5	28 Apr 2015	Current Direction	S
S5	28 Apr 2015	Water Temp (C)	17.2

Station	Date	Parameter	Value
S5	28 Apr 2015	Wave Height Low (ft)	2
S5	28 Apr 2015	High Tide (ft)	3.8
S5	28 Apr 2015	High Tide Time	623
S5	28 Apr 2015	Low Tide (ft)	0.6
S5	28 Apr 2015	Low Tide Time	1251
S5	28 Apr 2015	Comments	Water clear
S6	07 Apr 2015	Arrive Time	927
S6	07 Apr 2015	Weather	Partly Cloudy
S6	07 Apr 2015	Wind Speed (kts)	1.7
S6	07 Apr 2015	Wind Dir	W
S6	07 Apr 2015	Animal Life	None
S6	07 Apr 2015	Floatables	None
S6	07 Apr 2015	Water Color	Green
S6	07 Apr 2015	Current Direction	N
S6	07 Apr 2015	Water Temp (C)	16.8
S6	07 Apr 2015	Wave Height Low (ft)	3
S6	07 Apr 2015	High Tide (ft)	3.6
S6	07 Apr 2015	High Tide Time	1141
S6	07 Apr 2015	Low Tide (ft)	0.1
S6	07 Apr 2015	Low Tide Time	539
S6	07 Apr 2015	Comments	Kelp; Water clear
S6	14 Apr 2015	Arrive Time	747
S6	14 Apr 2015	Weather	Overcast
S6	14 Apr 2015	Wind Speed (kts)	3.8
S6	14 Apr 2015	Wind Dir	W
S6	14 Apr 2015	Animal Life	None
S6	14 Apr 2015	Floatables	None
S6	14 Apr 2015	Water Color	Green
S6	14 Apr 2015	Current Direction	N
S6	14 Apr 2015	Water Temp (C)	15.2
S6	14 Apr 2015	Wave Height Low (ft)	3
S6	14 Apr 2015	High Tide (ft)	4.7
S6	14 Apr 2015	High Tide Time	608
S6	14 Apr 2015	Low Tide (ft)	-0.3
S6	14 Apr 2015	Low Tide Time	1253
S6	14 Apr 2015	Comments	Kelp; Water clear
S6	21 Apr 2015	Arrive Time	910
S6	21 Apr 2015	Weather	Cloudy
S6	21 Apr 2015	Wind Speed (kts)	0.9
S6	21 Apr 2015	Wind Dir	E
S6	21 Apr 2015	Animal Life	None
S6	21 Apr 2015	Floatables	None
S6	21 Apr 2015	Water Color	Green
S6	21 Apr 2015	Current Direction	N

Station	Date	Parameter	Value
S6	21 Apr 2015	Water Temp (C)	17
S6	21 Apr 2015	Wave Height Low (ft)	3
S6	21 Apr 2015	High Tide (ft)	3.9
S6	21 Apr 2015	High Tide Time	1211
S6	21 Apr 2015	Low Tide (ft)	-0.8
S6	21 Apr 2015	Low Tide Time	556
S6	21 Apr 2015	Comments	Kelp; Seagrass; Water clear
S6	28 Apr 2015	Arrive Time	924
S6	28 Apr 2015	Weather	Sunny
S6	28 Apr 2015	Wind Speed (kts)	3.8
S6	28 Apr 2015	Wind Dir	NE
S6	28 Apr 2015	Animal Life	None
S6	28 Apr 2015	Floatables	None
S6	28 Apr 2015	Water Color	Green
S6	28 Apr 2015	Current Direction	S
S6	28 Apr 2015	Water Temp (C)	17.2
S6	28 Apr 2015	Wave Height Low (ft)	2
S6	28 Apr 2015	High Tide (ft)	3.8
S6	28 Apr 2015	High Tide Time	623
S6	28 Apr 2015	Low Tide (ft)	0.6
S6	28 Apr 2015	Low Tide Time	1251
S6	28 Apr 2015	Comments	Water clear
S8	07 Apr 2015	Arrive Time	815
S8	07 Apr 2015	Weather	Sunny
S8	07 Apr 2015	Wind Speed (kts)	2.9
S8	07 Apr 2015	Wind Dir	SE
S8	07 Apr 2015	Animal Life	None
S8	07 Apr 2015	Floatables	None
S8	07 Apr 2015	Water Color	Green
S8	07 Apr 2015	Current Direction	N
S8	07 Apr 2015	Water Temp (C)	14.6
S8	07 Apr 2015	Wave Height Low (ft)	2
S8	07 Apr 2015	High Tide (ft)	3.6
S8	07 Apr 2015	High Tide Time	1141
S8	07 Apr 2015	Low Tide (ft)	0.1
S8	07 Apr 2015	Low Tide Time	539
S8	07 Apr 2015	Comments	Water clear
S8	14 Apr 2015	Arrive Time	709
S8	14 Apr 2015	Weather	Cloudy
S8	14 Apr 2015	Wind Speed (kts)	4
S8	14 Apr 2015	Wind Dir	NW
S8	14 Apr 2015	Animal Life	None
S8	14 Apr 2015	Floatables	None
S8	14 Apr 2015	Water Color	Green

Station	Date	Parameter	Value
S8	14 Apr 2015	Current Direction	NW
S8	14 Apr 2015	Water Temp (C)	17.1
S8	14 Apr 2015	Wave Height Low (ft)	2
S8	14 Apr 2015	High Tide (ft)	4.7
S8	14 Apr 2015	High Tide Time	608
S8	14 Apr 2015	Low Tide (ft)	-0.3
S8	14 Apr 2015	Low Tide Time	1253
S8	14 Apr 2015	Comments	Kelp; Water clear
S8	21 Apr 2015	Arrive Time	820
S8	21 Apr 2015	Weather	Cloudy
S8	21 Apr 2015	Wind Speed (kts)	0.3
S8	21 Apr 2015	Wind Dir	W
S8	21 Apr 2015	Animal Life	None
S8	21 Apr 2015	Floatables	None
S8	21 Apr 2015	Water Color	Green
S8	21 Apr 2015	Current Direction	N
S8	21 Apr 2015	Water Temp (C)	17
S8	21 Apr 2015	Wave Height Low (ft)	2
S8	21 Apr 2015	High Tide (ft)	3.9
S8	21 Apr 2015	High Tide Time	1211
S8	21 Apr 2015	Low Tide (ft)	-0.8
S8	21 Apr 2015	Low Tide Time	556
S8	21 Apr 2015	Comments	Kelp; Seagrass; Water clear
S8	28 Apr 2015	Arrive Time	755
S8	28 Apr 2015	Weather	Sunny
S8	28 Apr 2015	Wind Speed (kts)	1.7
S8	28 Apr 2015	Wind Dir	N
S8	28 Apr 2015	Animal Life	None
S8	28 Apr 2015	Floatables	None
S8	28 Apr 2015	Water Color	Green
S8	28 Apr 2015	Current Direction	N
S8	28 Apr 2015	Water Temp (C)	16.8
S8	28 Apr 2015	Wave Height Low (ft)	3
S8	28 Apr 2015	High Tide (ft)	3.8
S8	28 Apr 2015	High Tide Time	623
S8	28 Apr 2015	Low Tide (ft)	0.6
S8	28 Apr 2015	Low Tide Time	1251
S8	28 Apr 2015	Comments	Kelp; 3 Persons; Water clear
S9	07 Apr 2015	Arrive Time	756
S9	07 Apr 2015	Weather	Sunny
S9	07 Apr 2015	Wind Speed (kts)	0.1
S9	07 Apr 2015	Wind Dir	SE
S9	07 Apr 2015	Animal Life	None
S9	07 Apr 2015	Floatables	None

Station	Date	Parameter	Value
S9	07 Apr 2015	Water Color	Green
S9	07 Apr 2015	Current Direction	N
S9	07 Apr 2015	Water Temp (C)	14.6
S9	07 Apr 2015	Wave Height Low (ft)	13.6
S9	07 Apr 2015	High Tide (ft)	3.6
S9	07 Apr 2015	High Tide Time	1141
S9	07 Apr 2015	Low Tide (ft)	0.1
S9	07 Apr 2015	Low Tide Time	539
S9	07 Apr 2015	Comments	Water clear
S9	14 Apr 2015	Arrive Time	650
S9	14 Apr 2015	Weather	Cloudy
S9	14 Apr 2015	Wind Speed (kts)	3.4
S9	14 Apr 2015	Wind Dir	NW
S9	14 Apr 2015	Animal Life	None
S9	14 Apr 2015	Floatables	None
S9	14 Apr 2015	Water Color	Green
S9	14 Apr 2015	Current Direction	NW
S9	14 Apr 2015	Water Temp (C)	17.1
S9	14 Apr 2015	Wave Height Low (ft)	2
S9	14 Apr 2015	High Tide (ft)	4.7
S9	14 Apr 2015	High Tide Time	608
S9	14 Apr 2015	Low Tide (ft)	-0.3
S9	14 Apr 2015	Low Tide Time	1253
S9	14 Apr 2015	Comments	Kelp; Seagrass; Water clear
S9	21 Apr 2015	Arrive Time	800
S9	21 Apr 2015	Weather	Sunny
S9	21 Apr 2015	Wind Speed (kts)	0.1
S9	21 Apr 2015	Wind Dir	W
S9	21 Apr 2015	Animal Life	2 Shorebirds
S9	21 Apr 2015	Floatables	None
S9	21 Apr 2015	Water Color	Green
S9	21 Apr 2015	Current Direction	N
S9	21 Apr 2015	Water Temp (C)	17
S9	21 Apr 2015	Wave Height Low (ft)	2
S9	21 Apr 2015	High Tide (ft)	3.9
S9	21 Apr 2015	High Tide Time	1211
S9	21 Apr 2015	Low Tide (ft)	-0.8
S9	21 Apr 2015	Low Tide Time	556
S9	21 Apr 2015	Comments	Kelp; Seagrass; 1 Swimmer; Water clear
S9	28 Apr 2015	Arrive Time	734
S9	28 Apr 2015	Weather	Sunny
S9	28 Apr 2015	Wind Speed (kts)	2.1
S9	28 Apr 2015	Wind Dir	N
S9	28 Apr 2015	Animal Life	None

Station	Date	Parameter	Value
S9	28 Apr 2015	Floatables	None
S9	28 Apr 2015	Water Color	Green
S9	28 Apr 2015	Current Direction	N
S9	28 Apr 2015	Water Temp (C)	16.8
S9	28 Apr 2015	Wave Height Low (ft)	2
S9	28 Apr 2015	High Tide (ft)	3.8
S9	28 Apr 2015	High Tide Time	623
S9	28 Apr 2015	Low Tide (ft)	0.6
S9	28 Apr 2015	Low Tide Time	1251
S9	28 Apr 2015	Comments	2 Persons; 3 Surfers; Water clear
S10	07 Apr 2015	Arrive Time	1111
S10	07 Apr 2015	Weather	Sunny
S10	07 Apr 2015	Wind Speed (kts)	3.2
S10	07 Apr 2015	Wind Dir	W
S10	07 Apr 2015	Animal Life	None
S10	07 Apr 2015	Floatables	None
S10	07 Apr 2015	Water Color	Green
S10	07 Apr 2015	Current Direction	W
S10	07 Apr 2015	Water Temp (C)	16.2
S10	07 Apr 2015	Wave Height Low (ft)	3
S10	07 Apr 2015	High Tide (ft)	3.6
S10	07 Apr 2015	High Tide Time	1141
S10	07 Apr 2015	Low Tide (ft)	0.1
S10	07 Apr 2015	Low Tide Time	539
S10	07 Apr 2015	Comments	Water clear; Dairymart dry at 1143
S10	14 Apr 2015	Arrive Time	756
S10	14 Apr 2015	Weather	Cloudy
S10	14 Apr 2015	Wind Speed (kts)	3.8
S10	14 Apr 2015	Wind Dir	NW
S10	14 Apr 2015	Animal Life	None
S10	14 Apr 2015	Floatables	None
S10	14 Apr 2015	Water Color	Green
S10	14 Apr 2015	Current Direction	NW
S10	14 Apr 2015	Water Temp (C)	16.2
S10	14 Apr 2015	Wave Height Low (ft)	3
S10	14 Apr 2015	High Tide (ft)	4.7
S10	14 Apr 2015	High Tide Time	608
S10	14 Apr 2015	Low Tide (ft)	-0.3
S10	14 Apr 2015	Low Tide Time	1253
S10	14 Apr 2015	Comments	Water clear; No flow at dairy mart rd
S10	21 Apr 2015	Arrive Time	1112
S10	21 Apr 2015	Weather	Sunny
S10	21 Apr 2015	Wind Speed (kts)	4.4
S10	21 Apr 2015	Wind Dir	W

Station	Date	Parameter	Value
S10	21 Apr 2015	Animal Life	None
S10	21 Apr 2015	Floatables	None
S10	21 Apr 2015	Water Color	Green
S10	21 Apr 2015	Current Direction	N
S10	21 Apr 2015	Water Temp (C)	17.5
S10	21 Apr 2015	Wave Height Low (ft)	3
S10	21 Apr 2015	High Tide (ft)	3.9
S10	21 Apr 2015	High Tide Time	1211
S10	21 Apr 2015	Low Tide (ft)	-0.8
S10	21 Apr 2015	Low Tide Time	556
S10	21 Apr 2015	Comments	Kelp; Water clear; Dairy mart dry
S10	28 Apr 2015	Arrive Time	1051
S10	28 Apr 2015	Weather	Sunny
S10	28 Apr 2015	Wind Speed (kts)	4.6
S10	28 Apr 2015	Wind Dir	N
S10	28 Apr 2015	Animal Life	None
S10	28 Apr 2015	Floatables	None
S10	28 Apr 2015	Water Color	Green
S10	28 Apr 2015	Current Direction	N
S10	28 Apr 2015	Water Temp (C)	17.6
S10	28 Apr 2015	Wave Height Low (ft)	3
S10	28 Apr 2015	High Tide (ft)	3.8
S10	28 Apr 2015	High Tide Time	623
S10	28 Apr 2015	Low Tide (ft)	0.6
S10	28 Apr 2015	Low Tide Time	1251
S10	28 Apr 2015	Comments	Water clear; Dairy mart dry at 1125
S11	07 Apr 2015	Arrive Time	923
S11	07 Apr 2015	Weather	Partly Cloudy
S11	07 Apr 2015	Wind Speed (kts)	1.5
S11	07 Apr 2015	Wind Dir	W
S11	07 Apr 2015	Animal Life	None
S11	07 Apr 2015	Floatables	None
S11	07 Apr 2015	Water Color	Green
S11	07 Apr 2015	Current Direction	N
S11	07 Apr 2015	Water Temp (C)	16.8
S11	07 Apr 2015	Wave Height Low (ft)	3
S11	07 Apr 2015	High Tide (ft)	3.6
S11	07 Apr 2015	High Tide Time	1141
S11	07 Apr 2015	Low Tide (ft)	0.1
S11	07 Apr 2015	Low Tide Time	539
S11	07 Apr 2015	Comments	Kelp; Water clear
S11	14 Apr 2015	Arrive Time	736
S11	14 Apr 2015	Weather	Overcast
S11	14 Apr 2015	Wind Speed (kts)	4.2

Station	Date	Parameter	Value
S11	14 Apr 2015	Wind Dir	W
S11	14 Apr 2015	Animal Life	None
S11	14 Apr 2015	Floatables	None
S11	14 Apr 2015	Water Color	Green
S11	14 Apr 2015	Current Direction	N
S11	14 Apr 2015	Water Temp (C)	15.2
S11	14 Apr 2015	Wave Height Low (ft)	3
S11	14 Apr 2015	High Tide (ft)	4.7
S11	14 Apr 2015	High Tide Time	608
S11	14 Apr 2015	Low Tide (ft)	-0.3
S11	14 Apr 2015	Low Tide Time	1253
S11	14 Apr 2015	Comments	Kelp; Water clear
S11	21 Apr 2015	Arrive Time	906
S11	21 Apr 2015	Weather	Cloudy
S11	21 Apr 2015	Wind Speed (kts)	0.7
S11	21 Apr 2015	Wind Dir	E
S11	21 Apr 2015	Animal Life	1 Dead seal
S11	21 Apr 2015	Floatables	None
S11	21 Apr 2015	Water Color	Green
S11	21 Apr 2015	Current Direction	N
S11	21 Apr 2015	Water Temp (C)	17.2
S11	21 Apr 2015	Wave Height Low (ft)	3
S11	21 Apr 2015	High Tide (ft)	3.9
S11	21 Apr 2015	High Tide Time	1211
S11	21 Apr 2015	Low Tide (ft)	-0.8
S11	21 Apr 2015	Low Tide Time	556
S11	21 Apr 2015	Comments	Seagrass; Water clear; Dead seal
S11	28 Apr 2015	Arrive Time	921
S11	28 Apr 2015	Weather	Sunny
S11	28 Apr 2015	Wind Speed (kts)	5.6
S11	28 Apr 2015	Wind Dir	NE
S11	28 Apr 2015	Animal Life	None
S11	28 Apr 2015	Floatables	None
S11	28 Apr 2015	Water Color	Green
S11	28 Apr 2015	Current Direction	S
S11	28 Apr 2015	Water Temp (C)	17.2
S11	28 Apr 2015	Wave Height Low (ft)	3
S11	28 Apr 2015	High Tide (ft)	3.8
S11	28 Apr 2015	High Tide Time	623
S11	28 Apr 2015	Low Tide (ft)	0.6
S11	28 Apr 2015	Low Tide Time	1251
S11	28 Apr 2015	Comments	Seagrass; Water clear
S12	07 Apr 2015	Arrive Time	943
S12	07 Apr 2015	Weather	Sunny

Station	Date	Parameter	Value
S12	07 Apr 2015	Wind Speed (kts)	1.9
S12	07 Apr 2015	Wind Dir	W
S12	07 Apr 2015	Animal Life	None
S12	07 Apr 2015	Floatables	None
S12	07 Apr 2015	Water Color	Green
S12	07 Apr 2015	Current Direction	N
S12	07 Apr 2015	Water Temp (C)	16.8
S12	07 Apr 2015	Wave Height Low (ft)	3
S12	07 Apr 2015	High Tide (ft)	3.6
S12	07 Apr 2015	High Tide Time	1141
S12	07 Apr 2015	Low Tide (ft)	0.1
S12	07 Apr 2015	Low Tide Time	539
S12	07 Apr 2015	Comments	Kelp; Water clear
S12	14 Apr 2015	Arrive Time	825
S12	14 Apr 2015	Weather	Partly Cloudy
S12	14 Apr 2015	Wind Speed (kts)	3.2
S12	14 Apr 2015	Wind Dir	W
S12	14 Apr 2015	Animal Life	None
S12	14 Apr 2015	Floatables	None
S12	14 Apr 2015	Water Color	Green
S12	14 Apr 2015	Current Direction	N
S12	14 Apr 2015	Water Temp (C)	16.3
S12	14 Apr 2015	Wave Height Low (ft)	3
S12	14 Apr 2015	High Tide (ft)	4.7
S12	14 Apr 2015	High Tide Time	608
S12	14 Apr 2015	Low Tide (ft)	-0.3
S12	14 Apr 2015	Low Tide Time	1253
S12	14 Apr 2015	Comments	Kelp; Water clear
S12	21 Apr 2015	Arrive Time	923
S12	21 Apr 2015	Weather	Cloudy
S12	21 Apr 2015	Wind Speed (kts)	2.7
S12	21 Apr 2015	Wind Dir	W
S12	21 Apr 2015	Animal Life	None
S12	21 Apr 2015	Floatables	None
S12	21 Apr 2015	Water Color	Green
S12	21 Apr 2015	Current Direction	N
S12	21 Apr 2015	Water Temp (C)	17
S12	21 Apr 2015	Wave Height Low (ft)	2
S12	21 Apr 2015	High Tide (ft)	3.9
S12	21 Apr 2015	High Tide Time	1211
S12	21 Apr 2015	Low Tide (ft)	-0.8
S12	21 Apr 2015	Low Tide Time	556
S12	21 Apr 2015	Comments	Kelp; Seagrass; Water clear
S12	28 Apr 2015	Arrive Time	935

Station	Date	Parameter	Value
S12	28 Apr 2015	Weather	Sunny
S12	28 Apr 2015	Wind Speed (kts)	3.1
S12	28 Apr 2015	Wind Dir	NE
S12	28 Apr 2015	Animal Life	None
S12	28 Apr 2015	Floatables	None
S12	28 Apr 2015	Water Color	Green
S12	28 Apr 2015	Current Direction	S
S12	28 Apr 2015	Water Temp (C)	17.3
S12	28 Apr 2015	Wave Height Low (ft)	2
S12	28 Apr 2015	High Tide (ft)	3.8
S12	28 Apr 2015	High Tide Time	623
S12	28 Apr 2015	Low Tide (ft)	0.6
S12	28 Apr 2015	Low Tide Time	1251
S12	28 Apr 2015	Comments	Water clear

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KELP BED STATIONS

Table 3.1

Summary of compliance with the 2012 Ocean Plan's 30-day Geometric Mean standard for total coliforms 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 >1000 CFU/100 mL exceed the standard.

Date	I19	I24	I25	I26	I32	I39	I40
01 Apr 2015	5	24	8	4	7	3	23
02 Apr 2015	4	17	7	4	6	3	15
03 Apr 2015	4	17	7	4	6	3	15
04 Apr 2015	4	17	7	4	6	3	15
05 Apr 2015	4	17	7	4	6	3	15
06 Apr 2015	4	6	3	2	2	3	8
07 Apr 2015	4	6	3	2	2	3	8
08 Apr 2015	4	3	2	2	2	3	8
09 Apr 2015	4	3	2	2	2	3	8
10 Apr 2015	4	2	2	2	2	2	3
11 Apr 2015	4	2	2	2	2	2	3
12 Apr 2015	4	2	2	2	2	2	3
13 Apr 2015	4	2	2	2	2	2	3
14 Apr 2015	4	2	2	2	2	2	3
15 Apr 2015	4	2	2	2	2	2	3
16 Apr 2015	5	2	2	2	2	2	3
17 Apr 2015	5	2	2	2	2	2	3
18 Apr 2015	5	2	2	2	2	2	3
19 Apr 2015	5	2	2	2	2	2	3
20 Apr 2015	5	2	2	2	2	2	3
21 Apr 2015	5	2	2	2	2	2	4
22 Apr 2015	6	2	2	2	2	2	4
23 Apr 2015	6	2	2	2	2	2	4
24 Apr 2015	6	2	2	2	2	2	4
25 Apr 2015	5*	2*	2*	2*	2*	2*	3*
26 Apr 2015	5*	2*	2*	2*	2*	2*	3*
27 Apr 2015	5*	2*	2*	2*	2*	2*	3*
28 Apr 2015	4	2	2	2	2	2	3
29 Apr 2015	4	2	2	2	2	2	3
30 Apr 2015	4	2	2	2	2	2	3

* Geometric mean calculated using an n<5

Table 3.2

Summary of compliance with the 2012 Ocean Plan's 30-day Geometric Mean standard for fecal coliform 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 Apr 2015	2	9	4	3	4	2	6
02 Apr 2015	2	7	4	3	4	2	5
03 Apr 2015	2	7	4	3	4	2	5
04 Apr 2015	2	7	4	3	4	2	5
05 Apr 2015	2	7	4	3	4	2	5
06 Apr 2015	2	4	2	2	2	2	3
07 Apr 2015	2	4	2	2	2	2	3
08 Apr 2015	2	2	2	2	2	2	3
09 Apr 2015	2	2	2	2	2	2	3
10 Apr 2015	2	2	2	2	2	2	2
11 Apr 2015	2	2	2	2	2	2	2
12 Apr 2015	2	2	2	2	2	2	2
13 Apr 2015	2	2	2	2	2	2	2
14 Apr 2015	2	2	2	2	2	2	2
15 Apr 2015	2	2	2	2	2	2	2
16 Apr 2015	2	2	2	2	2	2	2
17 Apr 2015	2	2	2	2	2	2	2
18 Apr 2015	2	2	2	2	2	2	2
19 Apr 2015	2	2	2	2	2	2	2
20 Apr 2015	2	2	2	2	2	2	2
21 Apr 2015	2	2	2	2	2	2	2
22 Apr 2015	2	2	2	2	2	2	2
23 Apr 2015	2	2	2	2	2	2	2
24 Apr 2015	2	2	2	2	2	2	2
25 Apr 2015	2*	2*	2*	2*	2*	2*	2*
26 Apr 2015	2*	2*	2*	2*	2*	2*	2*
27 Apr 2015	2*	2*	2*	2*	2*	2*	2*
28 Apr 2015	2	2	2	2	2	2	2
29 Apr 2015	2	2	2	2	2	2	2
30 Apr 2015	2	2	2	2	2	2	2

* Geometric mean calculated using an n<5

Table 3.3

Summary of compliance with the 2012 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 Apr 2015	2	4	2	2	3	2	9
02 Apr 2015	2	4	2	2	3	2	7
03 Apr 2015	2	4	2	2	3	2	7
04 Apr 2015	2	4	2	2	3	2	7
05 Apr 2015	2	4	2	2	3	2	7
06 Apr 2015	2	2	2	2	2	2	8
07 Apr 2015	2	2	2	2	2	2	8
08 Apr 2015	2	2	2	2	2	2	8
09 Apr 2015	2	2	2	2	2	2	8
10 Apr 2015	2	2	2	2	2	2	5
11 Apr 2015	2	2	2	2	2	2	5
12 Apr 2015	2	2	2	2	2	2	5
13 Apr 2015	2	2	2	2	2	2	5
14 Apr 2015	2	2	2	2	2	2	5
15 Apr 2015	2	2	2	2	2	2	4
16 Apr 2015	2	2	2	2	2	2	4
17 Apr 2015	2	2	2	2	2	2	4
18 Apr 2015	2	2	2	2	2	2	4
19 Apr 2015	2	2	2	2	2	2	4
20 Apr 2015	2	2	2	2	2	2	4
21 Apr 2015	2	2	2	2	2	2	3
22 Apr 2015	2	2	2	2	2	2	3
23 Apr 2015	2	2	2	2	2	2	3
24 Apr 2015	2	2	2	2	2	2	3
25 Apr 2015	2*	2*	2*	2*	2*	2*	2*
26 Apr 2015	2*	2*	2*	2*	2*	2*	2*
27 Apr 2015	2*	2*	2*	2*	2*	2*	2*
28 Apr 2015	2	2	2	2	2	2	2
29 Apr 2015	2	2	2	2	2	2	2
30 Apr 2015	2	2	2	2	2	2	2

* Geometric mean calculated using an n<5

Table 3.4

Summary of compliance at the SBOO kelp stations with the 2012 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 Apr 2015	IC	IC	IC	IC	IC	IC	IC
10 Apr 2015	IC	IC	IC	IC	IC	IC	IC
15 Apr 2015	IC	IC	IC	IC	IC	IC	IC
21 Apr 2015	IC	IC	IC	IC	IC	IC	IC
28 Apr 2015	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.5

Summary of compliance at the SBOO kelp stations with the 2012 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 Apr 2015	IC	IC	IC	IC	IC	IC	IC
10 Apr 2015	IC	IC	IC	IC	IC	IC	IC
15 Apr 2015	IC	IC	IC	IC	IC	IC	IC
21 Apr 2015	IC	IC	IC	IC	IC	IC	IC
28 Apr 2015	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.6

Summary of compliance at the SBOO kelp stations with the 2012 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 Apr 2015	IC	IC	IC	IC	IC	IC	IC
10 Apr 2015	IC	IC	IC	IC	IC	IC	IC
15 Apr 2015	IC	IC	IC	IC	IC	IC	IC
21 Apr 2015	IC	IC	IC	IC	IC	IC	IC
28 Apr 2015	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.7

Summary of compliance at the SBOO kelp stations with the 2012 Ocean Plan's Single Sample Maximum standard for total coliforms 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 Apr 2015	IC	IC	IC	IC	IC	IC	IC
10 Apr 2015	IC	IC	IC	IC	IC	IC	IC
15 Apr 2015	IC	IC	IC	IC	IC	IC	IC
21 Apr 2015	IC	IC	IC	IC	IC	IC	IC
28 Apr 2015	IC	IC	IC	IC	IC	IC	IC

IC = In Compliance

E = Exceedance

ns = not sampled

Table 3.8

Summary of water quality parameters at the SBOO kelp stations for each sample date. Densities of total coliform (Total), fecal coliform (Fecal), and *Enterococcus* (Entero) 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. Comments follow the data summary.

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I19	02 Apr 2015	1057	2	<2	<2	2e	1.0	17.9	63.92	7.8	33.31	8.2	ns	ns
I19	02 Apr 2015	1057	6	2e	2e	<2	1.0	17.9	70.77	8.0	33.32	8.2	ns	ns
I19	02 Apr 2015	1057	11	4e	<2	2e	0.5	15.3	65.06	7.5	33.28	8.2	ns	ns
I19	10 Apr 2015	1046	2	2e	<2	<2	1.0	15.5	73.06	5.6	33.30	8.1	ns	ns
I19	10 Apr 2015	1046	6	<2	<2	<2	1.0	12.3	69.97	6.6	33.39	8.0	ns	ns
I19	10 Apr 2015	1046	11	<20	2e	<2	0.1	11.8	49.81	5.6	33.37	7.9	ns	ns
I19	15 Apr 2015	1117	2	<2	<2	2e	1.0	17.2	75.43	8.2	33.36	8.2	ns	ns
I19	15 Apr 2015	1117	6	4e	6e	<2	1.5	14.4	58.72	8.0	33.24	8.2	ns	ns
I19	15 Apr 2015	1117	11	2e	<2	2e	1.0	12.5	41.10	7.0	33.30	8.1	ns	ns
I19	21 Apr 2015	1147	2	<2	<2	<2	1.0	16.8	77.88	8.2	33.33	8.2	ns	ns
I19	21 Apr 2015	1147	6	<20	<2	<2	0.1	13.3	71.66	9.1	33.30	8.2	ns	ns
I19	21 Apr 2015	1147	11	<2	<2	<2	1.0	12.2	73.49	7.8	33.32	8.2	ns	ns
I19	28 Apr 2015	1108	2	4e	<2	<2	0.5	15.7	68.35	8.1	33.33	8.2	ns	ns
I19	28 Apr 2015	1108	6	<2	<2	<2	1.0	13.2	72.02	8.0	33.30	8.2	ns	ns
I19	28 Apr 2015	1108	11	<2	<2	<2	1.0	12.5	56.70	6.6	33.31	8.0	ns	ns
I24	02 Apr 2015	1121	2	<2	<2	<2	1.0	17.8	84.79	8.2	33.31	8.3	ns	ns
I24	02 Apr 2015	1121	6	<2	<2	<2	1.0	17.8	85.12	8.3	33.31	8.3	ns	ns
I24	02 Apr 2015	1121	11	<2	<2	<2	1.0	15.9	57.16	8.5	33.28	8.2	ns	ns
I24	10 Apr 2015	1115	2	<2	<2	<2	1.0	15.9	79.23	8.0	33.30	8.2	ns	ns
I24	10 Apr 2015	1115	6	<2	<2	<2	1.0	12.8	82.27	6.9	33.29	8.1	ns	ns
I24	10 Apr 2015	1115	11	<2	<2	<2	1.0	11.9	79.53	6.2	33.36	8.0	ns	ns
I24	15 Apr 2015	1147	2	<2	<2	<2	1.0	17.2	82.32	8.2	33.36	8.2	ns	ns
I24	15 Apr 2015	1147	6	<2	<2	<2	1.0	16.9	83.52	8.7	33.35	8.2	ns	ns
I24	15 Apr 2015	1147	11	<2	<2	<2	1.0	14.5	61.37	8.8	33.33	8.2	ns	ns
I24	21 Apr 2015	1218	2	<2	<2	<2	1.0	17.1	82.78	8.6	33.36	8.2	ns	ns
I24	21 Apr 2015	1218	6	<2	<2	<2	1.0	15.6	82.97	9.0	33.33	8.2	ns	ns
I24	21 Apr 2015	1218	11	<2	<2	<2	1.0	12.3	55.60	7.4	33.32	8.1	ns	ns
I24	28 Apr 2015	1136	2	<2	<2	<2	1.0	15.7	80.43	8.5	33.32	8.2	ns	ns
I24	28 Apr 2015	1136	6	<2	<2	<2	1.0	13.2	74.41	7.7	33.29	8.1	ns	ns
I24	28 Apr 2015	1136	11	2e	<2	<2	1.0	12.4	74.53	6.8	33.30	8.0	ns	ns
I25	02 Apr 2015	1130	2	<2	<2	<2	1.0	17.7	83.93	8.4	33.31	8.2	ns	ns
I25	02 Apr 2015	1130	6	<2	<2	<2	1.0	17.7	84.36	8.4	33.30	8.2	ns	ns
I25	02 Apr 2015	1130	9	<2	<2	<2	1.0	15.4	83.37	7.7	33.31	8.2	ns	ns
I25	10 Apr 2015	1129	2	<2	<2	<2	1.0	15.6	79.95	7.9	33.46	8.2	ns	ns
I25	10 Apr 2015	1129	6	<2	<2	<2	1.0	12.4	79.35	7.6	33.46	8.1	ns	ns

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I25	10 Apr 2015	1129	9	<2	<2	<2	1.0	12.2	85.18	6.9	33.34	8.0	ns	ns
I25	15 Apr 2015	1159	2	<2	<2	<2	1.0	17.4	84.78	8.3	33.35	8.2	ns	ns
I25	15 Apr 2015	1159	6	<2	<2	<2	1.0	16.6	88.05	8.7	33.33	8.2	ns	ns
I25	15 Apr 2015	1159	9	<2	<2	<2	1.0	14.0	65.00	9.0	33.33	8.2	ns	ns
I25	21 Apr 2015	1229	2	<2	<2	<2	1.0	16.9	84.99	8.6	33.35	8.2	ns	ns
I25	21 Apr 2015	1229	6	<2	<2	<2	1.0	15.8	83.06	8.9	33.32	8.2	ns	ns
I25	21 Apr 2015	1229	9	<2	<2	<2	1.0	14.0	81.16	9.1	33.29	8.2	ns	ns
I25	28 Apr 2015	1147	2	<2	<2	<2	1.0	16.2	81.94	8.3	33.31	8.2	ns	ns
I25	28 Apr 2015	1147	6	<2	<2	<2	1.0	13.0	72.71	7.4	33.28	8.1	ns	ns
I25	28 Apr 2015	1147	9	<2	<2	<2	1.0	12.6	79.57	7.6	33.30	8.1	ns	ns
I26	02 Apr 2015	1140	2	<2	<2	<2	1.0	18.2	80.25	7.1	33.31	8.2	ns	ns
I26	02 Apr 2015	1140	6	<2	<2	<2	1.0	18.1	80.65	8.0	33.33	8.2	ns	ns
I26	02 Apr 2015	1140	9	2e	<2	<2	1.0	14.8	73.53	7.6	33.31	8.2	ns	ns
I26	10 Apr 2015	1141	2	<2	<2	<2	1.0	15.2	78.68	8.1	33.26	8.2	ns	ns
I26	10 Apr 2015	1141	6	<2	<2	<2	1.0	12.3	83.79	7.1	33.27	8.1	ns	ns
I26	10 Apr 2015	1141	9	4e	<2	<2	0.5	12.1	87.35	7.2	33.31	8.1	ns	ns
I26	15 Apr 2015	1214	2	<2	<2	<2	1.0	17.4	85.52	8.1	33.36	8.2	ns	ns
I26	15 Apr 2015	1214	6	<2	<2	<2	1.0	15.7	80.29	8.6	33.33	8.2	ns	ns
I26	15 Apr 2015	1214	9	<2	<2	<2	1.0	13.3	64.47	8.7	33.34	8.2	ns	ns
I26	21 Apr 2015	1244	2	<2	<2	<2	1.0	17.2	83.03	8.6	33.36	8.2	ns	ns
I26	21 Apr 2015	1244	6	<2	<2	<2	1.0	15.5	83.19	9.0	33.30	8.2	ns	ns
I26	21 Apr 2015	1244	9	<2	<2	<2	1.0	13.3	81.69	9.4	33.30	8.2	ns	ns
I26	28 Apr 2015	1206	2	<2	<2	<2	1.0	15.7	81.65	8.6	33.32	8.2	ns	ns
I26	28 Apr 2015	1206	6	<2	<2	<2	1.0	14.3	80.41	8.8	33.30	8.2	ns	ns
I26	28 Apr 2015	1206	9	<2	<2	<2	1.0	13.0	74.83	7.8	33.29	8.1	ns	ns
I32	02 Apr 2015	1155	2	<2	<2	<2	1.0	18.2	80.74	8.1	33.32	8.2	ns	ns
I32	02 Apr 2015	1155	6	<2	<2	<2	1.0	18.0	79.28	7.9	33.32	8.2	ns	ns
I32	02 Apr 2015	1155	9	<2	2e	<2	1.0	17.7	69.15	7.9	33.31	8.2	ns	ns
I32	10 Apr 2015	1156	2	<2	<2	<2	1.0	15.0	74.63	8.0	33.30	8.1	ns	ns
I32	10 Apr 2015	1156	6	<2	2e	<2	1.0	12.2	75.05	6.9	33.30	8.0	ns	ns
I32	10 Apr 2015	1156	9	<2	<2	<2	1.0	12.1	77.94	6.5	33.30	8.0	ns	ns
I32	15 Apr 2015	1231	2	<2	<2	<2	1.0	17.5	81.27	8.2	33.36	8.2	ns	ns
I32	15 Apr 2015	1231	6	<2	<2	<2	1.0	15.7	78.80	8.4	33.34	8.2	ns	ns
I32	15 Apr 2015	1231	9	<2	<2	<2	1.0	14.1	75.43	9.4	33.31	8.2	ns	ns
I32	21 Apr 2015	1303	2	<2	<2	<2	1.0	17.4	81.01	8.6	33.36	8.2	ns	ns
I32	21 Apr 2015	1303	6	4e	<2	<2	0.5	16.8	80.53	8.6	33.36	8.2	ns	ns
I32	21 Apr 2015	1303	9	4e	<2	<2	0.5	15.0	76.85	8.7	33.33	8.2	ns	ns
I32	28 Apr 2015	1223	2	<2	<2	<2	1.0	16.4	76.62	8.4	33.36	8.2	ns	ns
I32	28 Apr 2015	1223	6	<2	<2	<2	1.0	13.2	62.69	8.1	33.28	8.1	ns	ns
I32	28 Apr 2015	1223	9	<2	<2	<2	1.0	12.7	64.88	7.3	33.29	8.1	ns	ns
I39	02 Apr 2015	1034	2	<2	<2	2e	1.0	18.0	86.08	8.1	33.33	8.2	ns	ns
I39	02 Apr 2015	1034	12	<2	<2	<2	1.0	17.2	84.80	8.2	33.29	8.2	ns	ns

Station	Date	Time	Depth	Total	Fecal	Entero	F:T	Temp	XMS	DO	Sal	pH	OG	SUSO
I39	02 Apr 2015	1034	18	<2	<2	<2	1.0	13.5	65.48	6.8	33.28	8.1	ns	ns
I39	10 Apr 2015	1019	2	<2	<2	<2	1.0	15.6	80.55	8.6	33.32	8.2	ns	ns
I39	10 Apr 2015	1019	12	<2	<2	<2	1.0	12.5	82.54	7.3	33.29	8.1	ns	ns
I39	10 Apr 2015	1019	18	<2	<2	<2	1.0	11.4	88.29	5.9	33.38	8.0	ns	ns
I39	15 Apr 2015	1053	2	<2	<2	<2	1.0	17.2	88.94	8.5	33.34	8.2	ns	ns
I39	15 Apr 2015	1053	12	<2	<2	<2	1.0	16.1	88.07	8.7	33.32	8.2	ns	ns
I39	15 Apr 2015	1053	18	<2	<2	<2	1.0	12.6	57.66	7.6	33.33	8.1	ns	ns
I39	21 Apr 2015	1118	2	<2	<2	<2	1.0	16.4	85.95	8.6	33.31	8.2	ns	ns
I39	21 Apr 2015	1118	12	<2	<2	<2	1.0	13.3	80.47	8.6	33.30	8.2	ns	ns
I39	21 Apr 2015	1118	18	<2	<2	<2	1.0	11.9	77.87	6.3	33.35	8.0	ns	ns
I39	28 Apr 2015	1042	2	<2	<2	<2	1.0	16.5	83.95	8.4	33.34	8.2	ns	ns
I39	28 Apr 2015	1042	12	<2	<2	<2	1.0	11.8	79.79	6.2	33.30	8.0	ns	ns
I39	28 Apr 2015	1042	18	<2	<2	<2	1.0	11.5	80.33	5.6	33.34	8.0	ns	ns
I40	02 Apr 2015	1110	2	<2	<2	<2	1.0	18.2	81.26	8.0	33.32	8.2	ns	ns
I40	02 Apr 2015	1110	6	<2	<2	<2	1.0	18.2	80.37	8.1	33.32	8.2	ns	ns
I40	02 Apr 2015	1110	9	2e	<2	<2	1.0	18.1	78.68	8.1	33.32	8.2	ns	ns
I40	10 Apr 2015	1102	2	<2	<2	<2	1.0	15.7	76.43	8.0	33.30	8.1	ns	ns
I40	10 Apr 2015	1102	6	<2	<2	<2	1.0	11.9	81.95	6.6	33.33	8.0	ns	ns
I40	10 Apr 2015	1102	9	<2	<2	<2	1.0	11.8	71.05	5.7	33.36	7.9	ns	ns
I40	15 Apr 2015	1134	2	<2	<2	<2	1.0	17.5	80.43	8.2	33.36	8.2	ns	ns
I40	15 Apr 2015	1134	6	<2	<2	<2	1.0	16.0	75.48	8.6	33.30	8.2	ns	ns
I40	15 Apr 2015	1134	9	<2	<2	<2	1.0	13.5	67.74	7.9	33.30	8.1	ns	ns
I40	21 Apr 2015	1205	2	<2	<2	<2	1.0	16.5	77.69	8.3	33.33	8.2	ns	ns
I40	21 Apr 2015	1205	6	<20	<2	<2	0.1	14.9	73.31	8.3	33.28	8.2	ns	ns
I40	21 Apr 2015	1205	9	<20	<2	<2	0.1	12.6	67.77	7.9	33.31	8.1	ns	ns
I40	28 Apr 2015	1124	2	<2	<2	<2	1.0	15.6	77.53	8.2	33.33	8.2	ns	ns
I40	28 Apr 2015	1124	6	<2	<2	<2	1.0	12.9	52.28	7.3	33.32	8.1	ns	ns
I40	28 Apr 2015	1124	9	<2	<2	<2	1.0	12.5	56.92	6.4	33.31	8.0	ns	ns

ns = not sampled

Table 3.9

Summary of visual observations made during the month at the SBOO kelp stations for each sample date.

Station	Date	Parameter	Value
I19	02 Apr 2015	Depth (m)	12
I19	02 Apr 2015	Arrive Time	1057
I19	02 Apr 2015	Depart Time	1104
I19	02 Apr 2015	Air Temp (C)	16
I19	02 Apr 2015	Weather	Partly Cloudy
I19	02 Apr 2015	Visibility (mi)	8
I19	02 Apr 2015	Wind Speed (kts)	8
I19	02 Apr 2015	Wind Dir	S
I19	02 Apr 2015	Water Color	Bluish-Green
I19	02 Apr 2015	Wave Ht Low (ft)	5
I19	02 Apr 2015	Wave Period (sec)	11
I19	02 Apr 2015	Sea State	Confused swell
I19	02 Apr 2015	High Tide (ft)	4.67
I19	02 Apr 2015	High Tide Time	846
I19	02 Apr 2015	Low Tide (ft)	0.2
I19	02 Apr 2015	Low Tide Time	1503
I19	02 Apr 2015	Comments	
I19	10 Apr 2015	Depth (m)	11
I19	10 Apr 2015	Arrive Time	1046
I19	10 Apr 2015	Depart Time	1054
I19	10 Apr 2015	Air Temp (C)	16
I19	10 Apr 2015	Weather	Partly Cloudy
I19	10 Apr 2015	Visibility (mi)	7
I19	10 Apr 2015	Wind Speed (kts)	5
I19	10 Apr 2015	Wind Dir	NW
I19	10 Apr 2015	Water Color	Greenish-Blue
I19	10 Apr 2015	Wave Ht Low (ft)	3
I19	10 Apr 2015	Wave Period (sec)	9
I19	10 Apr 2015	Sea State	Calm
I19	10 Apr 2015	High Tide (ft)	2.87
I19	10 Apr 2015	High Tide Time	1510
I19	10 Apr 2015	Low Tide (ft)	0.46
I19	10 Apr 2015	Low Tide Time	830
I19	10 Apr 2015	Comments	
I19	15 Apr 2015	Depth (m)	11
I19	15 Apr 2015	Arrive Time	1117
I19	15 Apr 2015	Depart Time	1125
I19	15 Apr 2015	Air Temp (C)	17
I19	15 Apr 2015	Weather	Clear
I19	15 Apr 2015	Visibility (mi)	10

Station	Date	Parameter	Value
I19	15 Apr 2015	Wind Speed (kts)	6
I19	15 Apr 2015	Wind Dir	S
I19	15 Apr 2015	Water Color	Green
I19	15 Apr 2015	Wave Ht Low (ft)	6
I19	15 Apr 2015	Wave Period (sec)	9
I19	15 Apr 2015	Sea State	Wind ripples
I19	15 Apr 2015	High Tide (ft)	4.92
I19	15 Apr 2015	High Tide Time	707
I19	15 Apr 2015	Low Tide (ft)	-0.37
I19	15 Apr 2015	Low Tide Time	1336
I19	15 Apr 2015	Comments	Plankton bloom max of 40 ug/ml
I19	21 Apr 2015	Depth (m)	10
I19	21 Apr 2015	Arrive Time	1147
I19	21 Apr 2015	Depart Time	1156
I19	21 Apr 2015	Air Temp (C)	17
I19	21 Apr 2015	Weather	Clear
I19	21 Apr 2015	Visibility (mi)	10
I19	21 Apr 2015	Wind Speed (kts)	6
I19	21 Apr 2015	Wind Dir	NW
I19	21 Apr 2015	Water Color	Green
I19	21 Apr 2015	Wave Ht Low (ft)	3
I19	21 Apr 2015	Wave Period (sec)	9
I19	21 Apr 2015	Sea State	Calm
I19	21 Apr 2015	High Tide (ft)	3.87
I19	21 Apr 2015	High Tide Time	1211
I19	21 Apr 2015	Low Tide (ft)	-0.79
I19	21 Apr 2015	Low Tide Time	556
I19	21 Apr 2015	Comments	
I19	28 Apr 2015	Depth (m)	11
I19	28 Apr 2015	Arrive Time	1108
I19	28 Apr 2015	Depart Time	1115
I19	28 Apr 2015	Air Temp (C)	18
I19	28 Apr 2015	Weather	Clear
I19	28 Apr 2015	Visibility (mi)	10
I19	28 Apr 2015	Wind Speed (kts)	4
I19	28 Apr 2015	Wind Dir	S
I19	28 Apr 2015	Water Color	Green
I19	28 Apr 2015	Wave Ht Low (ft)	2
I19	28 Apr 2015	Wave Period (sec)	9
I19	28 Apr 2015	Sea State	Calm
I19	28 Apr 2015	High Tide (ft)	3.84
I19	28 Apr 2015	High Tide Time	623
I19	28 Apr 2015	Low Tide (ft)	0.63
I19	28 Apr 2015	Low Tide Time	1251
I19	28 Apr 2015	Comments	Kelp

Station	Date	Parameter	Value
I24	02 Apr 2015	Depth (m)	10
I24	02 Apr 2015	Arrive Time	1121
I24	02 Apr 2015	Depart Time	1127
I24	02 Apr 2015	Air Temp (C)	17
I24	02 Apr 2015	Weather	Partly Cloudy
I24	02 Apr 2015	Visibility (mi)	8
I24	02 Apr 2015	Wind Speed (kts)	7
I24	02 Apr 2015	Wind Dir	E
I24	02 Apr 2015	Water Color	Green
I24	02 Apr 2015	Wave Ht Low (ft)	5
I24	02 Apr 2015	Wave Period (sec)	11
I24	02 Apr 2015	Sea State	Confused swell
I24	02 Apr 2015	High Tide (ft)	4.67
I24	02 Apr 2015	High Tide Time	846
I24	02 Apr 2015	Low Tide (ft)	0.2
I24	02 Apr 2015	Low Tide Time	1503
I24	02 Apr 2015	Comments	
I24	10 Apr 2015	Depth (m)	9
I24	10 Apr 2015	Arrive Time	1115
I24	10 Apr 2015	Depart Time	1123
I24	10 Apr 2015	Air Temp (C)	16
I24	10 Apr 2015	Weather	Partly Cloudy
I24	10 Apr 2015	Visibility (mi)	7
I24	10 Apr 2015	Wind Speed (kts)	18
I24	10 Apr 2015	Wind Dir	S
I24	10 Apr 2015	Water Color	Greenish-Blue
I24	10 Apr 2015	Wave Ht Low (ft)	3
I24	10 Apr 2015	Wave Period (sec)	9
I24	10 Apr 2015	Sea State	Calm
I24	10 Apr 2015	High Tide (ft)	2.87
I24	10 Apr 2015	High Tide Time	1510
I24	10 Apr 2015	Low Tide (ft)	0.46
I24	10 Apr 2015	Low Tide Time	830
I24	10 Apr 2015	Comments	
I24	15 Apr 2015	Depth (m)	13
I24	15 Apr 2015	Arrive Time	1147
I24	15 Apr 2015	Depart Time	1156
I24	15 Apr 2015	Air Temp (C)	17
I24	15 Apr 2015	Weather	Clear
I24	15 Apr 2015	Visibility (mi)	10
I24	15 Apr 2015	Wind Speed (kts)	3
I24	15 Apr 2015	Wind Dir	NW
I24	15 Apr 2015	Water Color	Green
I24	15 Apr 2015	Wave Ht Low (ft)	6

Station	Date	Parameter	Value
I24	15 Apr 2015	Wave Period (sec)	9
I24	15 Apr 2015	Sea State	Wind ripples
I24	15 Apr 2015	High Tide (ft)	4.92
I24	15 Apr 2015	High Tide Time	707
I24	15 Apr 2015	Low Tide (ft)	-0.37
I24	15 Apr 2015	Low Tide Time	1336
I24	15 Apr 2015	Comments	
I24	21 Apr 2015	Depth (m)	10
I24	21 Apr 2015	Arrive Time	1218
I24	21 Apr 2015	Depart Time	1226
I24	21 Apr 2015	Air Temp (C)	17
I24	21 Apr 2015	Weather	Overcast
I24	21 Apr 2015	Visibility (mi)	10
I24	21 Apr 2015	Wind Speed (kts)	5
I24	21 Apr 2015	Wind Dir	SE
I24	21 Apr 2015	Water Color	Green
I24	21 Apr 2015	Wave Ht Low (ft)	3
I24	21 Apr 2015	Wave Period (sec)	9
I24	21 Apr 2015	Sea State	Calm
I24	21 Apr 2015	High Tide (ft)	3.87
I24	21 Apr 2015	High Tide Time	1211
I24	21 Apr 2015	Low Tide (ft)	-0.79
I24	21 Apr 2015	Low Tide Time	556
I24	21 Apr 2015	Comments	Kelp debris
I24	28 Apr 2015	Depth (m)	10
I24	28 Apr 2015	Arrive Time	1136
I24	28 Apr 2015	Depart Time	1142
I24	28 Apr 2015	Air Temp (C)	18
I24	28 Apr 2015	Weather	Clear
I24	28 Apr 2015	Visibility (mi)	10
I24	28 Apr 2015	Wind Speed (kts)	6
I24	28 Apr 2015	Wind Dir	NE
I24	28 Apr 2015	Water Color	Green
I24	28 Apr 2015	Wave Ht Low (ft)	2
I24	28 Apr 2015	Wave Period (sec)	9
I24	28 Apr 2015	Sea State	Light chop
I24	28 Apr 2015	High Tide (ft)	3.84
I24	28 Apr 2015	High Tide Time	623
I24	28 Apr 2015	Low Tide (ft)	0.63
I24	28 Apr 2015	Low Tide Time	1251
I24	28 Apr 2015	Comments	
I25	02 Apr 2015	Depth (m)	11
I25	02 Apr 2015	Arrive Time	1130
I25	02 Apr 2015	Depart Time	1136

Station	Date	Parameter	Value
I25	02 Apr 2015	Air Temp (C)	17
I25	02 Apr 2015	Weather	Partly Cloudy
I25	02 Apr 2015	Visibility (mi)	8
I25	02 Apr 2015	Wind Speed (kts)	8
I25	02 Apr 2015	Wind Dir	SE
I25	02 Apr 2015	Water Color	Green
I25	02 Apr 2015	Wave Ht Low (ft)	5
I25	02 Apr 2015	Wave Period (sec)	11
I25	02 Apr 2015	Sea State	Confused swell
I25	02 Apr 2015	High Tide (ft)	4.67
I25	02 Apr 2015	High Tide Time	846
I25	02 Apr 2015	Low Tide (ft)	0.2
I25	02 Apr 2015	Low Tide Time	1503
I25	02 Apr 2015	Comments	
I25	10 Apr 2015	Depth (m)	9
I25	10 Apr 2015	Arrive Time	1129
I25	10 Apr 2015	Depart Time	1137
I25	10 Apr 2015	Air Temp (C)	16
I25	10 Apr 2015	Weather	Partly Cloudy
I25	10 Apr 2015	Visibility (mi)	7
I25	10 Apr 2015	Wind Speed (kts)	17
I25	10 Apr 2015	Wind Dir	SW
I25	10 Apr 2015	Water Color	Greenish-Blue
I25	10 Apr 2015	Wave Ht Low (ft)	3
I25	10 Apr 2015	Wave Period (sec)	9
I25	10 Apr 2015	Sea State	Calm
I25	10 Apr 2015	High Tide (ft)	2.87
I25	10 Apr 2015	High Tide Time	1510
I25	10 Apr 2015	Low Tide (ft)	0.46
I25	10 Apr 2015	Low Tide Time	830
I25	10 Apr 2015	Comments	
I25	15 Apr 2015	Depth (m)	10
I25	15 Apr 2015	Arrive Time	1159
I25	15 Apr 2015	Depart Time	1212
I25	15 Apr 2015	Air Temp (C)	17
I25	15 Apr 2015	Weather	Clear
I25	15 Apr 2015	Visibility (mi)	10
I25	15 Apr 2015	Wind Speed (kts)	9
I25	15 Apr 2015	Wind Dir	SW
I25	15 Apr 2015	Water Color	Green
I25	15 Apr 2015	Wave Ht Low (ft)	6
I25	15 Apr 2015	Wave Period (sec)	9
I25	15 Apr 2015	Sea State	Wind ripples
I25	15 Apr 2015	High Tide (ft)	4.92
I25	15 Apr 2015	High Tide Time	707

Station	Date	Parameter	Value
I25	15 Apr 2015	Low Tide (ft)	-0.37
I25	15 Apr 2015	Low Tide Time	1336
I25	15 Apr 2015	Comments	
I25	21 Apr 2015	Depth (m)	10
I25	21 Apr 2015	Arrive Time	1229
I25	21 Apr 2015	Depart Time	1237
I25	21 Apr 2015	Air Temp (C)	17
I25	21 Apr 2015	Weather	Overcast
I25	21 Apr 2015	Visibility (mi)	9
I25	21 Apr 2015	Wind Speed (kts)	5
I25	21 Apr 2015	Wind Dir	SW
I25	21 Apr 2015	Water Color	Green
I25	21 Apr 2015	Wave Ht Low (ft)	3
I25	21 Apr 2015	Wave Period (sec)	9
I25	21 Apr 2015	Sea State	Calm
I25	21 Apr 2015	High Tide (ft)	3.87
I25	21 Apr 2015	High Tide Time	1211
I25	21 Apr 2015	Low Tide (ft)	-0.79
I25	21 Apr 2015	Low Tide Time	556
I25	21 Apr 2015	Comments	Boats
I25	28 Apr 2015	Depth (m)	10
I25	28 Apr 2015	Arrive Time	1147
I25	28 Apr 2015	Depart Time	1204
I25	28 Apr 2015	Air Temp (C)	18
I25	28 Apr 2015	Weather	Clear
I25	28 Apr 2015	Visibility (mi)	10
I25	28 Apr 2015	Wind Speed (kts)	7
I25	28 Apr 2015	Wind Dir	S
I25	28 Apr 2015	Water Color	Green
I25	28 Apr 2015	Wave Ht Low (ft)	2
I25	28 Apr 2015	Wave Period (sec)	9
I25	28 Apr 2015	Sea State	Light chop
I25	28 Apr 2015	High Tide (ft)	3.84
I25	28 Apr 2015	High Tide Time	623
I25	28 Apr 2015	Low Tide (ft)	0.63
I25	28 Apr 2015	Low Tide Time	1251
I25	28 Apr 2015	Comments	
I26	02 Apr 2015	Depth (m)	10
I26	02 Apr 2015	Arrive Time	1140
I26	02 Apr 2015	Depart Time	1146
I26	02 Apr 2015	Air Temp (C)	17
I26	02 Apr 2015	Weather	Partly Cloudy
I26	02 Apr 2015	Visibility (mi)	8
I26	02 Apr 2015	Wind Speed (kts)	9

Station	Date	Parameter	Value
I26	02 Apr 2015	Wind Dir	NW
I26	02 Apr 2015	Water Color	Green
I26	02 Apr 2015	Wave Ht Low (ft)	5
I26	02 Apr 2015	Wave Period (sec)	11
I26	02 Apr 2015	Sea State	Confused swell
I26	02 Apr 2015	High Tide (ft)	4.67
I26	02 Apr 2015	High Tide Time	846
I26	02 Apr 2015	Low Tide (ft)	0.2
I26	02 Apr 2015	Low Tide Time	1503
I26	02 Apr 2015	Comments	
I26	10 Apr 2015	Depth (m)	10
I26	10 Apr 2015	Arrive Time	1141
I26	10 Apr 2015	Depart Time	1146
I26	10 Apr 2015	Air Temp (C)	16
I26	10 Apr 2015	Weather	Partly Cloudy
I26	10 Apr 2015	Visibility (mi)	7
I26	10 Apr 2015	Wind Speed (kts)	8
I26	10 Apr 2015	Wind Dir	E
I26	10 Apr 2015	Water Color	Greenish-Blue
I26	10 Apr 2015	Wave Ht Low (ft)	3
I26	10 Apr 2015	Wave Period (sec)	9
I26	10 Apr 2015	Sea State	Calm
I26	10 Apr 2015	High Tide (ft)	2.87
I26	10 Apr 2015	High Tide Time	1510
I26	10 Apr 2015	Low Tide (ft)	0.46
I26	10 Apr 2015	Low Tide Time	830
I26	10 Apr 2015	Comments	
I26	15 Apr 2015	Depth (m)	10
I26	15 Apr 2015	Arrive Time	1214
I26	15 Apr 2015	Depart Time	1222
I26	15 Apr 2015	Air Temp (C)	17
I26	15 Apr 2015	Weather	Clear
I26	15 Apr 2015	Visibility (mi)	10
I26	15 Apr 2015	Wind Speed (kts)	9
I26	15 Apr 2015	Wind Dir	E
I26	15 Apr 2015	Water Color	Green
I26	15 Apr 2015	Wave Ht Low (ft)	6
I26	15 Apr 2015	Wave Period (sec)	9
I26	15 Apr 2015	Sea State	Wind ripples
I26	15 Apr 2015	High Tide (ft)	4.92
I26	15 Apr 2015	High Tide Time	707
I26	15 Apr 2015	Low Tide (ft)	-0.37
I26	15 Apr 2015	Low Tide Time	1336
I26	15 Apr 2015	Comments	

Station	Date	Parameter	Value
I26	21 Apr 2015	Depth (m)	9
I26	21 Apr 2015	Arrive Time	1244
I26	21 Apr 2015	Depart Time	1252
I26	21 Apr 2015	Air Temp (C)	17
I26	21 Apr 2015	Weather	Overcast
I26	21 Apr 2015	Visibility (mi)	9
I26	21 Apr 2015	Wind Speed (kts)	5
I26	21 Apr 2015	Wind Dir	W
I26	21 Apr 2015	Water Color	Green
I26	21 Apr 2015	Wave Ht Low (ft)	3
I26	21 Apr 2015	Wave Period (sec)	9
I26	21 Apr 2015	Sea State	Calm
I26	21 Apr 2015	High Tide (ft)	3.87
I26	21 Apr 2015	High Tide Time	1211
I26	21 Apr 2015	Low Tide (ft)	-0.79
I26	21 Apr 2015	Low Tide Time	556
I26	21 Apr 2015	Comments	
I26	28 Apr 2015	Depth (m)	11
I26	28 Apr 2015	Arrive Time	1206
I26	28 Apr 2015	Depart Time	1215
I26	28 Apr 2015	Air Temp (C)	18
I26	28 Apr 2015	Weather	Clear
I26	28 Apr 2015	Visibility (mi)	10
I26	28 Apr 2015	Wind Speed (kts)	6
I26	28 Apr 2015	Wind Dir	E
I26	28 Apr 2015	Water Color	Green
I26	28 Apr 2015	Wave Ht Low (ft)	2
I26	28 Apr 2015	Wave Period (sec)	9
I26	28 Apr 2015	Sea State	Light chop
I26	28 Apr 2015	High Tide (ft)	3.84
I26	28 Apr 2015	High Tide Time	623
I26	28 Apr 2015	Low Tide (ft)	0.63
I26	28 Apr 2015	Low Tide Time	1251
I26	28 Apr 2015	Comments	Kelp
I32	02 Apr 2015	Depth (m)	11
I32	02 Apr 2015	Arrive Time	1155
I32	02 Apr 2015	Depart Time	1200
I32	02 Apr 2015	Air Temp (C)	17
I32	02 Apr 2015	Weather	Partly Cloudy
I32	02 Apr 2015	Visibility (mi)	8
I32	02 Apr 2015	Wind Speed (kts)	9
I32	02 Apr 2015	Wind Dir	NW
I32	02 Apr 2015	Water Color	Green
I32	02 Apr 2015	Wave Ht Low (ft)	5
I32	02 Apr 2015	Wave Period (sec)	11

Station	Date	Parameter	Value
I32	02 Apr 2015	Sea State	Confused swell
I32	02 Apr 2015	High Tide (ft)	4.67
I32	02 Apr 2015	High Tide Time	846
I32	02 Apr 2015	Low Tide (ft)	0.2
I32	02 Apr 2015	Low Tide Time	1503
I32	02 Apr 2015	Comments	
I32	10 Apr 2015	Depth (m)	10
I32	10 Apr 2015	Arrive Time	1156
I32	10 Apr 2015	Depart Time	1201
I32	10 Apr 2015	Air Temp (C)	16
I32	10 Apr 2015	Weather	Partly Cloudy
I32	10 Apr 2015	Visibility (mi)	7
I32	10 Apr 2015	Wind Speed (kts)	6
I32	10 Apr 2015	Wind Dir	SW
I32	10 Apr 2015	Water Color	Greenish-Blue
I32	10 Apr 2015	Wave Ht Low (ft)	3
I32	10 Apr 2015	Wave Period (sec)	9
I32	10 Apr 2015	Sea State	Calm
I32	10 Apr 2015	High Tide (ft)	2.87
I32	10 Apr 2015	High Tide Time	1510
I32	10 Apr 2015	Low Tide (ft)	0.46
I32	10 Apr 2015	Low Tide Time	830
I32	10 Apr 2015	Comments	
I32	15 Apr 2015	Depth (m)	10
I32	15 Apr 2015	Arrive Time	1231
I32	15 Apr 2015	Depart Time	1240
I32	15 Apr 2015	Air Temp (C)	17
I32	15 Apr 2015	Weather	Clear
I32	15 Apr 2015	Visibility (mi)	10
I32	15 Apr 2015	Wind Speed (kts)	8
I32	15 Apr 2015	Wind Dir	NE
I32	15 Apr 2015	Water Color	Green
I32	15 Apr 2015	Wave Ht Low (ft)	6
I32	15 Apr 2015	Wave Period (sec)	9
I32	15 Apr 2015	Sea State	Wind ripples
I32	15 Apr 2015	High Tide (ft)	4.92
I32	15 Apr 2015	High Tide Time	707
I32	15 Apr 2015	Low Tide (ft)	-0.37
I32	15 Apr 2015	Low Tide Time	1336
I32	15 Apr 2015	Comments	none
I32	21 Apr 2015	Depth (m)	10
I32	21 Apr 2015	Arrive Time	1303
I32	21 Apr 2015	Depart Time	1310
I32	21 Apr 2015	Air Temp (C)	17

Station	Date	Parameter	Value
I32	21 Apr 2015	Weather	Overcast
I32	21 Apr 2015	Visibility (mi)	9
I32	21 Apr 2015	Wind Speed (kts)	7
I32	21 Apr 2015	Wind Dir	SW
I32	21 Apr 2015	Water Color	Green
I32	21 Apr 2015	Wave Ht Low (ft)	3
I32	21 Apr 2015	Wave Period (sec)	9
I32	21 Apr 2015	Sea State	Calm
I32	21 Apr 2015	High Tide (ft)	3.87
I32	21 Apr 2015	High Tide Time	1211
I32	21 Apr 2015	Low Tide (ft)	-0.79
I32	21 Apr 2015	Low Tide Time	556
I32	21 Apr 2015	Comments	
I32	28 Apr 2015	Depth (m)	9
I32	28 Apr 2015	Arrive Time	1223
I32	28 Apr 2015	Depart Time	1232
I32	28 Apr 2015	Air Temp (C)	18
I32	28 Apr 2015	Weather	Clear
I32	28 Apr 2015	Visibility (mi)	10
I32	28 Apr 2015	Wind Speed (kts)	15
I32	28 Apr 2015	Wind Dir	S
I32	28 Apr 2015	Water Color	Green
I32	28 Apr 2015	Wave Ht Low (ft)	2
I32	28 Apr 2015	Wave Period (sec)	9
I32	28 Apr 2015	Sea State	Light chop
I32	28 Apr 2015	High Tide (ft)	3.84
I32	28 Apr 2015	High Tide Time	623
I32	28 Apr 2015	Low Tide (ft)	0.63
I32	28 Apr 2015	Low Tide Time	1251
I32	28 Apr 2015	Comments	
I39	02 Apr 2015	Depth (m)	20
I39	02 Apr 2015	Arrive Time	1034
I39	02 Apr 2015	Depart Time	1042
I39	02 Apr 2015	Air Temp (C)	16
I39	02 Apr 2015	Weather	Partly Cloudy
I39	02 Apr 2015	Visibility (mi)	8
I39	02 Apr 2015	Wind Speed (kts)	5
I39	02 Apr 2015	Wind Dir	SW
I39	02 Apr 2015	Water Color	Bluish-Green
I39	02 Apr 2015	Wave Ht Low (ft)	5
I39	02 Apr 2015	Wave Period (sec)	11
I39	02 Apr 2015	Sea State	Confused swell
I39	02 Apr 2015	High Tide (ft)	4.67
I39	02 Apr 2015	High Tide Time	846
I39	02 Apr 2015	Low Tide (ft)	0.2

Station	Date	Parameter	Value
I39	02 Apr 2015	Low Tide Time	1503
I39	02 Apr 2015	Comments	
I39	10 Apr 2015	Depth (m)	18
I39	10 Apr 2015	Arrive Time	1019
I39	10 Apr 2015	Depart Time	1029
I39	10 Apr 2015	Air Temp (C)	16
I39	10 Apr 2015	Weather	Partly Cloudy
I39	10 Apr 2015	Visibility (mi)	7
I39	10 Apr 2015	Wind Speed (kts)	3
I39	10 Apr 2015	Wind Dir	SW
I39	10 Apr 2015	Water Color	Greenish-Blue
I39	10 Apr 2015	Wave Ht Low (ft)	3
I39	10 Apr 2015	Wave Period (sec)	9
I39	10 Apr 2015	Sea State	Calm
I39	10 Apr 2015	High Tide (ft)	2.87
I39	10 Apr 2015	High Tide Time	1510
I39	10 Apr 2015	Low Tide (ft)	0.46
I39	10 Apr 2015	Low Tide Time	830
I39	10 Apr 2015	Comments	
I39	15 Apr 2015	Depth (m)	18
I39	15 Apr 2015	Arrive Time	1053
I39	15 Apr 2015	Depart Time	1101
I39	15 Apr 2015	Air Temp (C)	16
I39	15 Apr 2015	Weather	Clear
I39	15 Apr 2015	Visibility (mi)	10
I39	15 Apr 2015	Wind Speed (kts)	5
I39	15 Apr 2015	Wind Dir	E
I39	15 Apr 2015	Water Color	Green
I39	15 Apr 2015	Wave Ht Low (ft)	4
I39	15 Apr 2015	Wave Period (sec)	9
I39	15 Apr 2015	Sea State	Calm
I39	15 Apr 2015	High Tide (ft)	4.92
I39	15 Apr 2015	High Tide Time	707
I39	15 Apr 2015	Low Tide (ft)	-0.37
I39	15 Apr 2015	Low Tide Time	1336
I39	15 Apr 2015	Comments	Kelp
I39	21 Apr 2015	Depth (m)	18
I39	21 Apr 2015	Arrive Time	1118
I39	21 Apr 2015	Depart Time	1129
I39	21 Apr 2015	Air Temp (C)	17
I39	21 Apr 2015	Weather	Overcast
I39	21 Apr 2015	Visibility (mi)	8
I39	21 Apr 2015	Wind Speed (kts)	4
I39	21 Apr 2015	Wind Dir	E

Station	Date	Parameter	Value
I39	21 Apr 2015	Water Color	Green
I39	21 Apr 2015	Wave Ht Low (ft)	3
I39	21 Apr 2015	Wave Period (sec)	9
I39	21 Apr 2015	Sea State	Calm
I39	21 Apr 2015	High Tide (ft)	3.87
I39	21 Apr 2015	High Tide Time	1211
I39	21 Apr 2015	Low Tide (ft)	-0.79
I39	21 Apr 2015	Low Tide Time	556
I39	21 Apr 2015	Comments	Kelp debris
I39	28 Apr 2015	Depth (m)	19
I39	28 Apr 2015	Arrive Time	1042
I39	28 Apr 2015	Depart Time	1055
I39	28 Apr 2015	Air Temp (C)	18
I39	28 Apr 2015	Weather	Clear
I39	28 Apr 2015	Visibility (mi)	9
I39	28 Apr 2015	Wind Speed (kts)	7
I39	28 Apr 2015	Wind Dir	N
I39	28 Apr 2015	Water Color	Green
I39	28 Apr 2015	Wave Ht Low (ft)	2
I39	28 Apr 2015	Wave Period (sec)	9
I39	28 Apr 2015	Sea State	Calm
I39	28 Apr 2015	High Tide (ft)	3.84
I39	28 Apr 2015	High Tide Time	623
I39	28 Apr 2015	Low Tide (ft)	0.63
I39	28 Apr 2015	Low Tide Time	1251
I39	28 Apr 2015	Comments	Kelp
I40	02 Apr 2015	Depth (m)	11
I40	02 Apr 2015	Arrive Time	1110
I40	02 Apr 2015	Depart Time	1115
I40	02 Apr 2015	Air Temp (C)	17
I40	02 Apr 2015	Weather	Partly Cloudy
I40	02 Apr 2015	Visibility (mi)	8
I40	02 Apr 2015	Wind Speed (kts)	6
I40	02 Apr 2015	Wind Dir	NE
I40	02 Apr 2015	Water Color	Green
I40	02 Apr 2015	Wave Ht Low (ft)	5
I40	02 Apr 2015	Wave Period (sec)	11
I40	02 Apr 2015	Sea State	Confused swell
I40	02 Apr 2015	High Tide (ft)	4.67
I40	02 Apr 2015	High Tide Time	846
I40	02 Apr 2015	Low Tide (ft)	0.2
I40	02 Apr 2015	Low Tide Time	1503
I40	02 Apr 2015	Comments	
I40	10 Apr 2015	Depth (m)	10

Station	Date	Parameter	Value
I40	10 Apr 2015	Arrive Time	1102
I40	10 Apr 2015	Depart Time	1107
I40	10 Apr 2015	Air Temp (C)	16
I40	10 Apr 2015	Weather	Partly Cloudy
I40	10 Apr 2015	Visibility (mi)	7
I40	10 Apr 2015	Wind Speed (kts)	4
I40	10 Apr 2015	Wind Dir	N
I40	10 Apr 2015	Water Color	Greenish-Blue
I40	10 Apr 2015	Wave Ht Low (ft)	3
I40	10 Apr 2015	Wave Period (sec)	9
I40	10 Apr 2015	Sea State	Calm
I40	10 Apr 2015	High Tide (ft)	2.87
I40	10 Apr 2015	High Tide Time	1510
I40	10 Apr 2015	Low Tide (ft)	0.46
I40	10 Apr 2015	Low Tide Time	830
I40	10 Apr 2015	Comments	
I40	15 Apr 2015	Depth (m)	10
I40	15 Apr 2015	Arrive Time	1134
I40	15 Apr 2015	Depart Time	1141
I40	15 Apr 2015	Air Temp (C)	17
I40	15 Apr 2015	Weather	Clear
I40	15 Apr 2015	Visibility (mi)	10
I40	15 Apr 2015	Wind Speed (kts)	3
I40	15 Apr 2015	Wind Dir	N
I40	15 Apr 2015	Water Color	Green
I40	15 Apr 2015	Wave Ht Low (ft)	6
I40	15 Apr 2015	Wave Period (sec)	9
I40	15 Apr 2015	Sea State	Wind ripples
I40	15 Apr 2015	High Tide (ft)	4.92
I40	15 Apr 2015	High Tide Time	707
I40	15 Apr 2015	Low Tide (ft)	-0.37
I40	15 Apr 2015	Low Tide Time	1336
I40	15 Apr 2015	Comments	
I40	21 Apr 2015	Depth (m)	9
I40	21 Apr 2015	Arrive Time	1205
I40	21 Apr 2015	Depart Time	1212
I40	21 Apr 2015	Air Temp (C)	17
I40	21 Apr 2015	Weather	Overcast
I40	21 Apr 2015	Visibility (mi)	10
I40	21 Apr 2015	Wind Speed (kts)	6
I40	21 Apr 2015	Wind Dir	SE
I40	21 Apr 2015	Water Color	Green
I40	21 Apr 2015	Wave Ht Low (ft)	3
I40	21 Apr 2015	Wave Period (sec)	9
I40	21 Apr 2015	Sea State	Calm

Station	Date	Parameter	Value
I40	21 Apr 2015	High Tide (ft)	3.87
I40	21 Apr 2015	High Tide Time	1211
I40	21 Apr 2015	Low Tide (ft)	-0.79
I40	21 Apr 2015	Low Tide Time	556
I40	21 Apr 2015	Comments	
I40	28 Apr 2015	Depth (m)	10
I40	28 Apr 2015	Arrive Time	1124
I40	28 Apr 2015	Depart Time	1131
I40	28 Apr 2015	Air Temp (C)	18
I40	28 Apr 2015	Weather	Clear
I40	28 Apr 2015	Visibility (mi)	10
I40	28 Apr 2015	Wind Speed (kts)	2
I40	28 Apr 2015	Wind Dir	S
I40	28 Apr 2015	Water Color	Green
I40	28 Apr 2015	Wave Ht Low (ft)	2
I40	28 Apr 2015	Wave Period (sec)	9
I40	28 Apr 2015	Sea State	Light chop
I40	28 Apr 2015	High Tide (ft)	3.84
I40	28 Apr 2015	High Tide Time	623
I40	28 Apr 2015	Low Tide (ft)	0.63
I40	28 Apr 2015	Low Tide Time	1251
I40	28 Apr 2015	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 (μ g/L)
I19	02 Apr 2015	1	17.87	64.85	7.9	33.31	8.2	23.9	1.44
I19	02 Apr 2015	2	17.86	63.92	7.8	33.31	8.2	24.0	1.65
I19	02 Apr 2015	3	17.86	65.98	7.9	33.32	8.2	24.0	2.09
I19	02 Apr 2015	4	17.86	69.16	7.9	33.32	8.2	24.0	2.33
I19	02 Apr 2015	5	17.85	69.69	8.0	33.32	8.2	24.0	2.54
I19	02 Apr 2015	6	17.85	70.77	8.0	33.32	8.2	24.0	2.72
I19	02 Apr 2015	7	17.82	70.85	7.9	33.31	8.2	24.0	2.82
I19	02 Apr 2015	8	17.52	72.44	7.8	33.30	8.2	24.1	3.03
I19	02 Apr 2015	9	16.88	69.48	7.5	33.26	8.2	24.2	3.68
I19	02 Apr 2015	10	15.32	65.06	7.5	33.28	8.2	24.6	4.62
I19	10 Apr 2015	1	15.64	73.49	5.0	33.25	8.1	24.5	3.37
I19	10 Apr 2015	2	15.49	73.06	5.6	33.30	8.1	24.5	6.68
I19	10 Apr 2015	3	15.02	72.08	6.5	33.41	8.1	24.7	5.06
I19	10 Apr 2015	4	13.47	65.57	7.3	33.44	8.1	25.1	3.13
I19	10 Apr 2015	5	12.77	62.22	7.1	33.41	8.0	25.2	2.58
I19	10 Apr 2015	6	12.30	69.97	6.6	33.39	8.0	25.3	2.91
I19	10 Apr 2015	7	11.96	65.66	6.0	33.39	8.0	25.3	3.08
I19	10 Apr 2015	8	11.87	56.25	5.7	33.37	7.9	25.3	3.31
I19	10 Apr 2015	9	11.82	56.00	5.6	33.37	7.9	25.4	3.84
I19	10 Apr 2015	10	11.85	49.81	5.6	33.37	7.9	25.4	4.32
I19	15 Apr 2015	1	17.22	75.29	8.2	33.35	8.2	24.2	0.72
I19	15 Apr 2015	2	17.20	75.43	8.2	33.36	8.2	24.2	0.75
I19	15 Apr 2015	3	17.14	75.27	8.0	33.35	8.2	24.2	0.94
I19	15 Apr 2015	4	16.71	74.89	7.7	33.29	8.2	24.3	2.12
I19	15 Apr 2015	5	15.62	72.10	7.8	33.27	8.2	24.5	4.10
I19	15 Apr 2015	6	14.37	58.72	8.0	33.24	8.2	24.8	7.58
I19	15 Apr 2015	7	12.88	52.70	8.0	33.30	8.1	25.1	9.82
I19	15 Apr 2015	8	12.68	57.34	7.7	33.30	8.1	25.1	11.42
I19	15 Apr 2015	9	12.54	58.30	7.3	33.30	8.1	25.2	14.27
I19	15 Apr 2015	10	12.50	41.10	7.0	33.30	8.1	25.2	18.62
I19	21 Apr 2015	1	17.33	77.75	8.2	33.38	8.2	24.2	0.90
I19	21 Apr 2015	2	16.76	77.88	8.2	33.33	8.2	24.3	1.39
I19	21 Apr 2015	3	15.85	77.95	8.2	33.35	8.2	24.5	2.39
I19	21 Apr 2015	4	15.52	75.69	8.3	33.34	8.2	24.6	3.40
I19	21 Apr 2015	5	14.60	73.96	8.6	33.28	8.2	24.7	4.28
I19	21 Apr 2015	6	13.29	71.66	9.1	33.30	8.2	25.0	4.21
I19	21 Apr 2015	7	12.95	71.77	9.3	33.30	8.2	25.1	4.46
I19	21 Apr 2015	8	12.75	73.91	9.3	33.30	8.2	25.1	5.14
I19	21 Apr 2015	9	12.40	75.33	8.8	33.30	8.2	25.2	9.63
I19	21 Apr 2015	10	12.20	73.49	7.8	33.32	8.2	25.2	19.26
I19	28 Apr 2015	1	15.76	68.41	8.1	33.34	8.2	24.5	0.96
I19	28 Apr 2015	2	15.67	68.35	8.1	33.33	8.2	24.5	1.08
I19	28 Apr 2015	3	15.05	67.43	8.1	33.31	8.2	24.7	1.54
I19	28 Apr 2015	4	14.30	67.56	8.3	33.31	8.2	24.8	2.45
I19	28 Apr 2015	5	13.72	69.85	8.4	33.31	8.2	24.9	3.12
I19	28 Apr 2015	6	13.20	72.02	8.0	33.30	8.2	25.0	4.87
I19	28 Apr 2015	7	12.89	65.72	7.3	33.31	8.1	25.1	7.04

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I19	28 Apr 2015	8	12.77	58.07	7.1	33.31	8.1	25.1	8.49
I19	28 Apr 2015	9	12.65	56.53	6.9	33.31	8.1	25.2	7.87
I19	28 Apr 2015	10	12.53	56.70	6.6	33.31	8.0	25.2	7.47
I24	02 Apr 2015	1	17.80	84.81	8.3	33.30	8.3	24.0	0.79
I24	02 Apr 2015	2	17.81	84.79	8.2	33.31	8.3	24.0	0.78
I24	02 Apr 2015	3	17.80	85.12	8.2	33.30	8.3	24.0	0.88
I24	02 Apr 2015	4	17.79	84.99	8.3	33.31	8.3	24.0	0.93
I24	02 Apr 2015	5	17.81	84.99	8.3	33.30	8.3	24.0	0.91
I24	02 Apr 2015	6	17.80	85.12	8.3	33.31	8.3	24.0	0.96
I24	02 Apr 2015	7	17.78	85.13	8.2	33.30	8.3	24.0	1.21
I24	02 Apr 2015	8	17.33	83.94	8.0	33.30	8.2	24.1	1.80
I24	02 Apr 2015	9	15.86	74.21	8.4	33.29	8.2	24.5	1.78
I24	02 Apr 2015	10	15.85	62.20	8.5	33.28	8.2	24.5	1.82
I24	02 Apr 2015	11	15.86	57.16	8.5	33.28	8.2	24.5	1.83
I24	10 Apr 2015	1	16.04	79.05	8.1	33.31	8.2	24.4	0.91
I24	10 Apr 2015	2	15.95	79.23	8.0	33.30	8.2	24.4	0.97
I24	10 Apr 2015	3	15.47	78.96	7.9	33.30	8.2	24.6	1.15
I24	10 Apr 2015	4	14.80	77.40	7.7	33.28	8.1	24.7	1.30
I24	10 Apr 2015	5	13.47	77.65	7.4	33.27	8.1	25.0	1.22
I24	10 Apr 2015	6	12.82	82.27	6.9	33.29	8.1	25.1	1.02
I24	10 Apr 2015	7	12.25	83.16	6.5	33.32	8.0	25.2	0.91
I24	10 Apr 2015	8	12.11	81.62	6.4	33.33	8.0	25.3	0.94
I24	10 Apr 2015	9	11.96	83.55	6.2	33.34	8.0	25.3	1.03
I24	10 Apr 2015	10	11.89	79.53	6.2	33.36	8.0	25.3	1.12
I24	15 Apr 2015	1	17.27	82.43	8.3	33.35	8.2	24.2	0.49
I24	15 Apr 2015	2	17.17	82.32	8.2	33.36	8.2	24.2	0.54
I24	15 Apr 2015	3	17.13	81.81	8.3	33.35	8.2	24.2	0.59
I24	15 Apr 2015	4	17.04	81.09	8.4	33.35	8.2	24.2	0.69
I24	15 Apr 2015	5	16.95	80.11	8.6	33.35	8.2	24.3	0.76
I24	15 Apr 2015	6	16.92	83.52	8.7	33.35	8.2	24.3	0.82
I24	15 Apr 2015	7	16.72	85.09	8.6	33.33	8.2	24.3	0.96
I24	15 Apr 2015	8	15.46	84.80	8.4	33.27	8.2	24.5	1.69
I24	15 Apr 2015	9	14.51	66.87	8.9	33.32	8.2	24.8	2.37
I24	15 Apr 2015	10	14.49	61.37	8.8	33.33	8.2	24.8	2.45
I24	21 Apr 2015	1	17.24	82.74	8.5	33.36	8.2	24.2	0.60
I24	21 Apr 2015	2	17.07	82.78	8.6	33.36	8.2	24.2	0.63
I24	21 Apr 2015	3	16.76	83.08	8.7	33.33	8.2	24.3	0.74
I24	21 Apr 2015	4	16.29	83.70	8.8	33.34	8.2	24.4	0.91
I24	21 Apr 2015	5	15.92	83.50	8.9	33.30	8.2	24.5	1.15
I24	21 Apr 2015	6	15.58	82.97	9.0	33.33	8.2	24.6	1.28
I24	21 Apr 2015	7	15.42	82.41	8.8	33.33	8.2	24.6	1.80
I24	21 Apr 2015	8	14.62	77.87	8.4	33.29	8.2	24.7	3.97
I24	21 Apr 2015	9	13.73	66.29	8.0	33.27	8.2	24.9	7.51
I24	21 Apr 2015	10	12.38	54.84	7.7	33.32	8.1	25.2	9.17
I24	21 Apr 2015	11	12.31	55.60	7.4	33.32	8.1	25.2	9.84
I24	28 Apr 2015	1	16.28	80.66	8.4	33.35	8.2	24.4	0.67
I24	28 Apr 2015	2	15.74	80.43	8.5	33.32	8.2	24.5	0.77
I24	28 Apr 2015	3	14.98	79.34	8.3	33.32	8.2	24.7	1.08
I24	28 Apr 2015	4	14.44	76.21	8.0	33.29	8.2	24.8	1.51
I24	28 Apr 2015	5	13.34	73.73	7.7	33.30	8.1	25.0	2.08

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I24	28 Apr 2015	6	13.17	74.41	7.7	33.29	8.1	25.0	2.92
I24	28 Apr 2015	7	12.91	72.42	7.5	33.29	8.1	25.1	4.20
I24	28 Apr 2015	8	12.66	71.05	7.4	33.29	8.1	25.1	5.42
I24	28 Apr 2015	9	12.45	74.81	7.0	33.30	8.1	25.2	4.23
I24	28 Apr 2015	10	12.36	74.53	6.8	33.30	8.0	25.2	3.95
I25	02 Apr 2015	1	17.73	84.37	8.4	33.31	8.2	24.0	0.89
I25	02 Apr 2015	2	17.74	83.93	8.4	33.31	8.2	24.0	0.93
I25	02 Apr 2015	3	17.74	84.18	8.4	33.31	8.2	24.0	0.95
I25	02 Apr 2015	4	17.74	84.12	8.4	33.31	8.2	24.0	1.02
I25	02 Apr 2015	5	17.74	84.31	8.4	33.31	8.2	24.0	1.04
I25	02 Apr 2015	6	17.73	84.36	8.4	33.30	8.2	24.0	1.22
I25	02 Apr 2015	7	17.71	84.45	8.2	33.30	8.2	24.0	1.45
I25	02 Apr 2015	8	17.38	84.12	7.8	33.30	8.2	24.0	1.57
I25	02 Apr 2015	9	15.44	83.37	7.7	33.31	8.2	24.6	1.75
I25	10 Apr 2015	1	15.88	80.04	7.8	33.26	8.2	24.4	0.66
I25	10 Apr 2015	2	15.60	79.95	7.9	33.46	8.2	24.7	1.06
I25	10 Apr 2015	3	14.66	79.50	7.9	33.49	8.1	24.9	1.22
I25	10 Apr 2015	4	14.33	78.48	8.1	33.36	8.1	24.9	1.21
I25	10 Apr 2015	5	13.70	77.32	8.0	33.51	8.1	25.1	1.31
I25	10 Apr 2015	6	12.42	79.35	7.6	33.46	8.1	25.3	1.42
I25	10 Apr 2015	7	12.25	84.54	7.0	33.37	8.0	25.3	1.30
I25	10 Apr 2015	8	12.22	84.48	6.9	33.35	8.0	25.3	1.14
I25	10 Apr 2015	9	12.23	85.18	6.9	33.34	8.0	25.3	0.95
I25	15 Apr 2015	1	17.45	85.22	8.3	33.35	8.2	24.1	0.38
I25	15 Apr 2015	2	17.44	84.78	8.3	33.35	8.2	24.1	0.39
I25	15 Apr 2015	3	17.15	86.70	8.4	33.35	8.2	24.2	0.44
I25	15 Apr 2015	4	17.03	88.32	8.5	33.35	8.2	24.2	0.52
I25	15 Apr 2015	5	16.98	88.40	8.6	33.35	8.2	24.2	0.63
I25	15 Apr 2015	6	16.62	88.05	8.7	33.33	8.2	24.3	0.91
I25	15 Apr 2015	7	15.80	87.31	8.8	33.26	8.2	24.5	1.47
I25	15 Apr 2015	8	14.06	82.81	9.0	33.32	8.2	24.9	2.40
I25	15 Apr 2015	9	13.99	65.00	9.0	33.33	8.2	24.9	2.60
I25	21 Apr 2015	1	17.09	85.09	8.6	33.35	8.2	24.2	0.58
I25	21 Apr 2015	2	16.94	84.99	8.6	33.35	8.2	24.3	0.60
I25	21 Apr 2015	3	16.72	84.85	8.6	33.33	8.2	24.3	0.67
I25	21 Apr 2015	4	16.12	84.64	8.8	33.32	8.2	24.4	0.88
I25	21 Apr 2015	5	16.00	84.01	8.9	33.32	8.2	24.5	1.02
I25	21 Apr 2015	6	15.82	83.06	8.9	33.32	8.2	24.5	1.14
I25	21 Apr 2015	7	15.54	82.96	8.9	33.31	8.2	24.5	1.29
I25	21 Apr 2015	8	14.91	82.64	8.9	33.29	8.2	24.7	1.56
I25	21 Apr 2015	9	13.96	81.16	9.1	33.29	8.2	24.9	1.86
I25	28 Apr 2015	1	16.49	81.80	8.4	33.36	8.2	24.4	0.62
I25	28 Apr 2015	2	16.17	81.94	8.3	33.31	8.2	24.4	0.79
I25	28 Apr 2015	3	15.06	80.82	8.5	33.33	8.2	24.7	1.30
I25	28 Apr 2015	4	14.60	77.81	8.4	33.30	8.2	24.7	1.77
I25	28 Apr 2015	5	13.97	74.02	7.9	33.29	8.2	24.9	2.19
I25	28 Apr 2015	6	13.00	72.71	7.4	33.28	8.1	25.1	2.33
I25	28 Apr 2015	7	12.74	75.20	7.2	33.28	8.1	25.1	2.24
I25	28 Apr 2015	8	12.55	77.63	7.5	33.29	8.1	25.2	2.42
I25	28 Apr 2015	9	12.56	79.57	7.6	33.30	8.1	25.2	2.27

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I26	02 Apr 2015	1	18.20	78.53	6.9	33.27	8.2	23.9	0.87
I26	02 Apr 2015	2	18.19	80.25	7.1	33.31	8.2	23.9	0.87
I26	02 Apr 2015	3	18.17	82.24	7.8	33.32	8.2	23.9	0.97
I26	02 Apr 2015	4	18.15	82.24	7.8	33.32	8.2	23.9	1.07
I26	02 Apr 2015	5	18.12	81.44	7.7	33.32	8.2	24.0	1.09
I26	02 Apr 2015	6	18.08	80.65	8.0	33.33	8.2	24.0	1.06
I26	02 Apr 2015	7	18.02	79.37	8.1	33.33	8.2	24.0	1.16
I26	02 Apr 2015	8	17.54	78.08	7.9	33.34	8.2	24.2	1.48
I26	02 Apr 2015	9	14.83	73.53	7.6	33.31	8.2	24.8	1.95
I26	10 Apr 2015	1	15.94	78.44	8.2	33.30	8.2	24.5	1.24
I26	10 Apr 2015	2	15.25	78.68	8.1	33.26	8.2	24.6	1.42
I26	10 Apr 2015	3	13.48	79.64	8.0	33.27	8.2	25.0	1.61
I26	10 Apr 2015	4	13.09	82.61	7.7	33.27	8.1	25.0	1.82
I26	10 Apr 2015	5	12.67	83.58	7.3	33.27	8.1	25.1	1.59
I26	10 Apr 2015	6	12.28	83.79	7.1	33.27	8.1	25.2	1.16
I26	10 Apr 2015	7	12.10	86.03	7.1	33.30	8.0	25.3	1.01
I26	10 Apr 2015	8	12.10	87.38	7.1	33.30	8.1	25.3	0.94
I26	10 Apr 2015	9	12.10	87.35	7.2	33.31	8.1	25.3	0.90
I26	15 Apr 2015	1	17.63	86.29	8.2	33.36	8.2	24.1	0.40
I26	15 Apr 2015	2	17.45	85.52	8.1	33.36	8.2	24.1	0.41
I26	15 Apr 2015	3	17.12	86.30	8.4	33.36	8.2	24.2	0.45
I26	15 Apr 2015	4	16.83	86.78	8.4	33.35	8.2	24.3	0.52
I26	15 Apr 2015	5	16.57	85.54	8.3	33.34	8.2	24.3	0.64
I26	15 Apr 2015	6	15.74	80.29	8.6	33.33	8.2	24.5	0.97
I26	15 Apr 2015	7	15.11	70.91	8.9	33.32	8.2	24.7	1.65
I26	15 Apr 2015	8	13.68	66.20	8.9	33.33	8.2	25.0	2.53
I26	15 Apr 2015	9	13.28	64.47	8.7	33.34	8.2	25.1	3.82
I26	21 Apr 2015	1	17.29	82.65	8.5	33.37	8.2	24.2	0.70
I26	21 Apr 2015	2	17.25	83.03	8.6	33.36	8.2	24.2	0.74
I26	21 Apr 2015	3	16.94	83.14	8.6	33.35	8.2	24.3	0.81
I26	21 Apr 2015	4	16.33	83.58	8.8	33.31	8.2	24.4	1.15
I26	21 Apr 2015	5	15.81	84.05	9.0	33.32	8.2	24.5	1.54
I26	21 Apr 2015	6	15.54	83.19	9.0	33.30	8.2	24.5	1.74
I26	21 Apr 2015	7	15.20	82.44	9.1	33.30	8.2	24.6	1.84
I26	21 Apr 2015	8	14.57	82.77	9.2	33.27	8.2	24.7	2.85
I26	21 Apr 2015	9	13.29	81.69	9.4	33.30	8.2	25.0	4.76
I26	28 Apr 2015	1	16.52	81.68	8.3	33.32	8.2	24.3	0.60
I26	28 Apr 2015	2	15.72	81.65	8.6	33.32	8.2	24.5	0.69
I26	28 Apr 2015	3	15.18	81.35	8.9	33.33	8.2	24.6	0.90
I26	28 Apr 2015	4	14.99	81.60	8.9	33.32	8.2	24.7	1.17
I26	28 Apr 2015	5	14.67	81.29	9.0	33.31	8.2	24.7	1.48
I26	28 Apr 2015	6	14.34	80.41	8.8	33.30	8.2	24.8	2.05
I26	28 Apr 2015	7	13.99	78.29	8.3	33.28	8.2	24.9	2.85
I26	28 Apr 2015	8	13.02	73.73	7.9	33.29	8.1	25.1	2.37
I26	28 Apr 2015	9	12.97	74.83	7.8	33.29	8.1	25.1	2.41
I32	02 Apr 2015	1	18.17	78.18	8.1	33.32	8.2	23.9	0.89
I32	02 Apr 2015	2	18.16	80.74	8.1	33.32	8.2	23.9	0.92
I32	02 Apr 2015	3	18.16	80.91	8.1	33.32	8.2	23.9	1.00
I32	02 Apr 2015	4	18.14	80.76	8.1	33.32	8.2	24.0	1.15

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I32	02 Apr 2015	5	18.12	80.33	8.0	33.32	8.2	24.0	1.33
I32	02 Apr 2015	6	18.04	79.28	7.9	33.32	8.2	24.0	1.68
I32	02 Apr 2015	7	17.96	75.78	7.9	33.31	8.2	24.0	2.00
I32	02 Apr 2015	8	17.79	71.95	7.9	33.31	8.2	24.0	2.24
I32	02 Apr 2015	9	17.68	69.15	7.9	33.31	8.2	24.1	2.39
I32	10 Apr 2015	1	15.40	74.87	8.0	33.30	8.1	24.6	1.01
I32	10 Apr 2015	2	15.04	74.63	8.0	33.30	8.1	24.7	1.11
I32	10 Apr 2015	3	14.83	74.08	7.9	33.30	8.1	24.7	1.47
I32	10 Apr 2015	4	14.50	72.48	7.6	33.26	8.1	24.7	1.80
I32	10 Apr 2015	5	13.12	73.48	7.2	33.28	8.1	25.0	1.61
I32	10 Apr 2015	6	12.25	75.05	6.9	33.30	8.0	25.2	1.31
I32	10 Apr 2015	7	12.10	75.72	6.7	33.29	8.0	25.2	1.35
I32	10 Apr 2015	8	12.04	76.97	6.6	33.30	8.0	25.3	1.71
I32	10 Apr 2015	9	12.05	77.94	6.5	33.30	8.0	25.3	2.28
I32	10 Apr 2015	10	12.06	77.07	6.5	33.31	8.0	25.3	2.51
I32	15 Apr 2015	1	17.52	81.62	8.3	33.36	8.2	24.1	0.58
I32	15 Apr 2015	2	17.52	81.27	8.2	33.36	8.2	24.1	0.58
I32	15 Apr 2015	3	17.49	81.88	8.2	33.36	8.2	24.1	0.63
I32	15 Apr 2015	4	17.25	82.21	8.2	33.31	8.2	24.2	0.87
I32	15 Apr 2015	5	16.35	82.00	8.3	33.32	8.2	24.4	1.40
I32	15 Apr 2015	6	15.66	78.80	8.4	33.34	8.2	24.5	1.95
I32	15 Apr 2015	7	15.29	76.11	8.9	33.26	8.2	24.6	2.72
I32	15 Apr 2015	8	14.34	74.79	9.4	33.31	8.2	24.8	4.35
I32	15 Apr 2015	9	14.13	75.43	9.4	33.31	8.2	24.9	5.70
I32	21 Apr 2015	1	17.52	81.16	8.6	33.38	8.2	24.1	0.77
I32	21 Apr 2015	2	17.35	81.01	8.6	33.36	8.2	24.2	0.82
I32	21 Apr 2015	3	17.18	80.97	8.6	33.36	8.2	24.2	0.94
I32	21 Apr 2015	4	16.91	81.03	8.6	33.36	8.2	24.3	1.08
I32	21 Apr 2015	5	16.89	81.21	8.6	33.36	8.2	24.3	1.20
I32	21 Apr 2015	6	16.79	80.53	8.6	33.36	8.2	24.3	1.36
I32	21 Apr 2015	7	16.58	79.99	8.3	33.36	8.2	24.4	1.60
I32	21 Apr 2015	8	15.81	78.76	8.5	33.31	8.2	24.5	2.00
I32	21 Apr 2015	9	14.98	76.85	8.7	33.33	8.2	24.7	2.56
I32	21 Apr 2015	10	14.28	76.37	8.8	33.28	8.2	24.8	4.91
I32	28 Apr 2015	1	16.32	76.64	8.4	33.36	8.2	24.4	0.85
I32	28 Apr 2015	2	16.42	76.62	8.4	33.36	8.2	24.4	0.84
I32	28 Apr 2015	3	16.50	76.88	8.3	33.35	8.2	24.4	0.83
I32	28 Apr 2015	4	15.46	77.59	8.1	33.28	8.2	24.5	1.33
I32	28 Apr 2015	5	13.54	70.56	8.2	33.30	8.2	25.0	2.87
I32	28 Apr 2015	6	13.21	62.69	8.1	33.28	8.1	25.0	4.27
I32	28 Apr 2015	7	12.94	63.82	7.9	33.28	8.1	25.1	6.20
I32	28 Apr 2015	8	12.71	64.64	7.7	33.29	8.1	25.1	7.23
I32	28 Apr 2015	9	12.66	64.88	7.3	33.29	8.1	25.1	7.43
I39	02 Apr 2015	1	18.03	85.57	8.1	33.33	8.2	24.0	0.50
I39	02 Apr 2015	2	18.01	86.08	8.1	33.33	8.2	24.0	0.54
I39	02 Apr 2015	3	17.95	86.22	8.1	33.33	8.2	24.0	0.60
I39	02 Apr 2015	4	17.93	86.35	8.2	33.33	8.2	24.0	0.63
I39	02 Apr 2015	5	17.92	86.27	8.1	33.33	8.2	24.0	0.66
I39	02 Apr 2015	6	17.86	86.32	8.1	33.32	8.2	24.0	0.73
I39	02 Apr 2015	7	17.81	86.23	8.2	33.32	8.2	24.0	0.82

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I39	02 Apr 2015	8	17.70	86.06	8.3	33.31	8.3	24.0	0.96
I39	02 Apr 2015	9	17.59	85.85	8.4	33.30	8.3	24.1	1.09
I39	02 Apr 2015	10	17.52	85.65	8.4	33.31	8.3	24.1	1.26
I39	02 Apr 2015	11	17.46	85.29	8.4	33.30	8.3	24.1	1.51
I39	02 Apr 2015	12	17.20	84.80	8.2	33.29	8.2	24.2	1.86
I39	02 Apr 2015	13	16.76	83.69	8.1	33.27	8.2	24.2	2.24
I39	02 Apr 2015	14	15.85	80.60	7.9	33.22	8.2	24.4	2.60
I39	02 Apr 2015	15	13.94	76.57	7.4	33.24	8.1	24.8	2.93
I39	02 Apr 2015	16	13.63	68.34	7.2	33.29	8.1	24.9	3.21
I39	02 Apr 2015	17	13.63	64.52	7.0	33.28	8.1	24.9	2.74
I39	02 Apr 2015	18	13.50	65.48	6.8	33.28	8.1	25.0	2.47
I39	10 Apr 2015	1	15.76	80.45	8.5	33.33	8.2	24.5	1.16
I39	10 Apr 2015	2	15.60	80.55	8.6	33.32	8.2	24.5	1.33
I39	10 Apr 2015	3	15.45	80.42	8.6	33.33	8.2	24.6	1.65
I39	10 Apr 2015	4	15.40	79.85	8.6	33.32	8.2	24.6	1.96
I39	10 Apr 2015	5	15.32	80.47	8.6	33.32	8.2	24.6	2.32
I39	10 Apr 2015	6	15.23	80.63	8.4	33.31	8.2	24.6	2.64
I39	10 Apr 2015	7	14.86	80.74	8.2	33.30	8.2	24.7	3.28
I39	10 Apr 2015	8	14.07	80.76	8.2	33.30	8.2	24.9	3.88
I39	10 Apr 2015	9	13.84	80.61	8.1	33.30	8.1	24.9	3.95
I39	10 Apr 2015	10	13.76	80.86	7.9	33.30	8.1	24.9	3.76
I39	10 Apr 2015	11	13.57	81.73	7.6	33.28	8.1	24.9	3.36
I39	10 Apr 2015	12	12.50	82.54	7.3	33.29	8.1	25.2	2.54
I39	10 Apr 2015	13	12.05	83.05	6.8	33.29	8.1	25.3	1.99
I39	10 Apr 2015	14	11.72	85.35	6.6	33.32	8.0	25.3	1.78
I39	10 Apr 2015	15	11.60	87.80	6.3	33.34	8.0	25.4	1.77
I39	10 Apr 2015	16	11.48	87.82	6.1	33.35	8.0	25.4	1.46
I39	10 Apr 2015	17	11.40	88.06	6.0	33.37	8.0	25.4	1.21
I39	10 Apr 2015	18	11.38	88.29	5.9	33.38	8.0	25.4	1.04
I39	15 Apr 2015	1	17.16	88.86	8.4	33.34	8.2	24.2	0.48
I39	15 Apr 2015	2	17.16	88.94	8.5	33.34	8.2	24.2	0.46
I39	15 Apr 2015	3	17.08	89.41	8.5	33.33	8.2	24.2	0.50
I39	15 Apr 2015	4	16.98	89.41	8.6	33.34	8.2	24.2	0.50
I39	15 Apr 2015	5	16.96	89.07	8.6	33.33	8.2	24.2	0.56
I39	15 Apr 2015	6	16.80	89.02	8.6	33.34	8.2	24.3	0.68
I39	15 Apr 2015	7	16.73	88.76	8.6	33.34	8.2	24.3	0.82
I39	15 Apr 2015	8	16.72	88.56	8.6	33.34	8.2	24.3	0.95
I39	15 Apr 2015	9	16.68	88.54	8.6	33.34	8.2	24.3	1.11
I39	15 Apr 2015	10	16.61	88.42	8.5	33.33	8.2	24.3	1.28
I39	15 Apr 2015	11	16.41	88.47	8.7	33.31	8.2	24.4	1.58
I39	15 Apr 2015	12	16.08	88.07	8.7	33.32	8.2	24.4	2.17
I39	15 Apr 2015	13	15.75	86.85	8.8	33.32	8.2	24.5	3.09
I39	15 Apr 2015	14	15.47	85.52	8.8	33.31	8.2	24.6	3.65
I39	15 Apr 2015	15	14.70	84.61	8.4	33.28	8.2	24.7	3.74
I39	15 Apr 2015	16	13.07	80.41	8.4	33.47	8.1	25.2	5.05
I39	15 Apr 2015	17	12.72	67.83	7.9	33.51	8.1	25.3	6.41
I39	15 Apr 2015	18	12.62	57.66	7.6	33.33	8.1	25.2	6.47
I39	21 Apr 2015	1	16.61	86.07	8.4	33.33	8.2	24.3	0.57
I39	21 Apr 2015	2	16.36	85.95	8.6	33.31	8.2	24.4	0.67
I39	21 Apr 2015	3	15.50	85.71	8.8	33.28	8.2	24.5	0.93
I39	21 Apr 2015	4	14.90	85.06	9.0	33.27	8.2	24.7	1.28
I39	21 Apr 2015	5	14.62	84.41	9.0	33.28	8.2	24.7	1.62

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ-t)	Chlor (μg/L)
I39	21 Apr 2015	6	14.57	83.63	9.0	33.28	8.2	24.7	1.94
I39	21 Apr 2015	7	14.52	82.89	9.0	33.28	8.2	24.8	2.39
I39	21 Apr 2015	8	14.41	81.84	8.8	33.29	8.2	24.8	2.91
I39	21 Apr 2015	9	14.14	81.50	8.7	33.27	8.2	24.8	3.72
I39	21 Apr 2015	10	13.80	81.06	8.6	33.28	8.2	24.9	4.85
I39	21 Apr 2015	11	13.55	80.55	8.8	33.30	8.2	25.0	6.38
I39	21 Apr 2015	12	13.26	80.47	8.6	33.30	8.2	25.0	7.89
I39	21 Apr 2015	13	12.95	78.61	8.3	33.31	8.2	25.1	7.60
I39	21 Apr 2015	14	12.70	78.27	7.8	33.32	8.2	25.1	7.33
I39	21 Apr 2015	15	12.43	79.24	7.4	33.33	8.1	25.2	6.70
I39	21 Apr 2015	16	12.31	78.63	7.1	33.34	8.1	25.2	6.09
I39	21 Apr 2015	17	12.16	78.50	6.7	33.34	8.1	25.3	5.55
I39	21 Apr 2015	18	11.91	77.87	6.3	33.35	8.0	25.3	3.95
I39	28 Apr 2015	1	16.78	83.86	8.2	33.37	8.2	24.3	0.50
I39	28 Apr 2015	2	16.50	83.95	8.4	33.34	8.2	24.4	0.56
I39	28 Apr 2015	3	15.56	83.77	8.6	33.31	8.2	24.6	0.87
I39	28 Apr 2015	4	14.57	83.52	8.4	33.28	8.2	24.7	1.62
I39	28 Apr 2015	5	13.47	79.98	8.1	33.28	8.2	25.0	2.56
I39	28 Apr 2015	6	12.91	75.55	7.8	33.28	8.1	25.1	3.17
I39	28 Apr 2015	7	12.71	74.65	7.4	33.28	8.1	25.1	3.40
I39	28 Apr 2015	8	12.53	75.43	7.2	33.28	8.1	25.2	3.79
I39	28 Apr 2015	9	12.27	76.15	6.9	33.29	8.1	25.2	3.51
I39	28 Apr 2015	10	12.00	77.54	6.6	33.29	8.0	25.3	3.05
I39	28 Apr 2015	11	11.90	78.78	6.4	33.30	8.0	25.3	3.24
I39	28 Apr 2015	12	11.75	79.79	6.2	33.30	8.0	25.3	2.78
I39	28 Apr 2015	13	11.60	80.33	5.9	33.32	8.0	25.4	2.01
I39	28 Apr 2015	14	11.53	80.49	5.8	33.33	8.0	25.4	1.83
I39	28 Apr 2015	15	11.51	80.69	5.7	33.33	8.0	25.4	1.80
I39	28 Apr 2015	16	11.49	80.49	5.7	33.34	8.0	25.4	1.64
I39	28 Apr 2015	17	11.49	80.56	5.6	33.34	7.9	25.4	1.61
I39	28 Apr 2015	18	11.49	80.33	5.6	33.34	8.0	25.4	1.57
I40	02 Apr 2015	1	18.22	80.93	8.1	33.32	8.2	23.9	1.06
I40	02 Apr 2015	2	18.22	81.26	8.0	33.32	8.2	23.9	1.11
I40	02 Apr 2015	3	18.21	81.33	8.1	33.32	8.2	23.9	1.19
I40	02 Apr 2015	4	18.21	81.40	8.2	33.32	8.2	23.9	1.40
I40	02 Apr 2015	5	18.19	81.36	8.2	33.32	8.2	23.9	1.76
I40	02 Apr 2015	6	18.18	80.37	8.1	33.32	8.2	23.9	2.12
I40	02 Apr 2015	7	18.16	80.07	8.1	33.32	8.2	23.9	2.39
I40	02 Apr 2015	8	18.14	79.29	8.1	33.32	8.2	23.9	2.63
I40	02 Apr 2015	9	18.12	78.68	8.1	33.32	8.2	24.0	2.65
I40	02 Apr 2015	10	18.08	78.39	8.0	33.32	8.2	24.0	NA
I40	10 Apr 2015	1	16.00	76.18	8.0	33.29	8.1	24.4	1.02
I40	10 Apr 2015	2	15.73	76.43	8.0	33.30	8.1	24.5	1.14
I40	10 Apr 2015	3	15.53	76.65	7.9	33.30	8.1	24.5	1.37
I40	10 Apr 2015	4	14.02	77.05	7.8	33.20	8.1	24.8	1.18
I40	10 Apr 2015	5	12.95	78.91	7.3	33.29	8.1	25.1	0.94
I40	10 Apr 2015	6	11.93	81.95	6.6	33.33	8.0	25.3	0.88
I40	10 Apr 2015	7	11.83	81.98	6.2	33.34	8.0	25.3	1.02
I40	10 Apr 2015	8	11.78	79.94	5.8	33.35	8.0	25.3	1.40
I40	10 Apr 2015	9	11.77	71.05	5.7	33.36	7.9	25.4	1.92
I40	10 Apr 2015	10	11.79	63.81	5.6	33.36	7.9	25.4	2.29

Station	Date	Depth (m)	Temp (°C)	XMS (%)	DO (mg/L)	Sal (ppt)	pH	Dens (σ -t)	Chlor (μ g/L)
I40	15 Apr 2015	1	17.49	80.36	8.2	33.36	8.2	24.1	0.48
I40	15 Apr 2015	2	17.47	80.43	8.2	33.36	8.2	24.1	0.50
I40	15 Apr 2015	3	17.31	80.58	8.2	33.34	8.2	24.2	0.58
I40	15 Apr 2015	4	16.91	80.25	8.2	33.34	8.2	24.3	0.78
I40	15 Apr 2015	5	16.66	78.04	8.3	33.32	8.2	24.3	1.12
I40	15 Apr 2015	6	15.96	75.48	8.6	33.30	8.2	24.5	1.62
I40	15 Apr 2015	7	15.30	75.06	8.4	33.31	8.2	24.6	2.19
I40	15 Apr 2015	8	14.46	75.70	8.1	33.27	8.2	24.8	3.32
I40	15 Apr 2015	9	13.51	67.74	7.9	33.30	8.1	25.0	5.28
I40	15 Apr 2015	10	13.08	64.09	7.7	33.30	8.1	25.1	7.37
I40	21 Apr 2015	1	17.02	77.90	8.3	33.35	8.2	24.2	0.71
I40	21 Apr 2015	2	16.53	77.69	8.3	33.33	8.2	24.3	0.89
I40	21 Apr 2015	3	16.28	77.53	8.2	33.35	8.2	24.4	1.14
I40	21 Apr 2015	4	16.08	76.95	8.1	33.34	8.2	24.5	1.73
I40	21 Apr 2015	5	15.76	74.75	8.2	33.34	8.2	24.5	2.38
I40	21 Apr 2015	6	14.95	73.31	8.3	33.28	8.2	24.7	3.35
I40	21 Apr 2015	7	13.53	71.71	8.5	33.27	8.2	24.9	5.09
I40	21 Apr 2015	8	12.71	70.26	8.3	33.31	8.2	25.1	8.01
I40	21 Apr 2015	9	12.59	67.77	7.9	33.31	8.1	25.2	11.39
I40	21 Apr 2015	10	12.43	59.06	7.5	33.31	8.1	25.2	14.17
I40	28 Apr 2015	1	15.92	78.02	8.2	33.35	8.2	24.5	0.69
I40	28 Apr 2015	2	15.63	77.53	8.2	33.33	8.2	24.5	0.89
I40	28 Apr 2015	3	14.76	72.51	7.9	33.30	8.2	24.7	1.40
I40	28 Apr 2015	4	13.44	64.34	7.5	33.30	8.1	25.0	2.31
I40	28 Apr 2015	5	13.16	66.03	7.4	33.31	8.1	25.1	5.09
I40	28 Apr 2015	6	12.95	52.28	7.3	33.32	8.1	25.1	10.81
I40	28 Apr 2015	7	12.73	44.19	7.1	33.31	8.1	25.1	12.38
I40	28 Apr 2015	8	12.65	51.78	6.7	33.31	8.1	25.2	8.35
I40	28 Apr 2015	9	12.54	56.92	6.4	33.31	8.0	25.2	6.19
I40	28 Apr 2015	10	12.52	53.41	6.2	33.31	8.0	25.2	5.70

APPENDIX A
QUALITY ASSURANCE

Table A.1

Summary of bacteriological quality assurance field and laboratory 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 Apr 2015	6	AR	LAB DUPLICATE	ns	ns	<2
I19	02 Apr 2015	6	SR	LAB DUPLICATE	<2	2e	ns
I19	10 Apr 2015	6	LMA	LAB DUPLICATE	<2	<2	2e
I19	15 Apr 2015	6	LMA	LAB DUPLICATE	6e	2e	<2
I19	21 Apr 2015	6	SR	LAB DUPLICATE	<20	<2	<2
I19	28 Apr 2015	6	JT	LAB DUPLICATE	<2	<2	<2
I40	02 Apr 2015	6	AR	LAB DUPLICATE	ns	ns	<2
I40	02 Apr 2015	6	SR	LAB DUPLICATE	<2	<2	ns
I40	10 Apr 2015	6	LMA	LAB DUPLICATE	2e	<2	<2
I40	15 Apr 2015	6	LMA	LAB DUPLICATE	<2	<2	<2
I40	21 Apr 2015	6	SR	LAB DUPLICATE	<20	<2	<2
I40	28 Apr 2015	6	JT	LAB DUPLICATE	<2	<2	ns
S12	07 Apr 2015		SR	FIELD DUPLICATE	<2	<2	<2
S12	07 Apr 2015		SR	LAB DUPLICATE	2e	2e	<2
S12	14 Apr 2015		JT	FIELD DUPLICATE	<2	<2	<2
S12	14 Apr 2015		JT	LAB DUPLICATE	<2	<2	4e
S12	21 Apr 2015		LMA	FIELD DUPLICATE	20e	20e	<2
S12	21 Apr 2015		LMA	LAB DUPLICATE	20e	40e	<2
S12	28 Apr 2015		ZV	FIELD DUPLICATE	<2	<2	<2
S12	28 Apr 2015		ZV	LAB DUPLICATE	<2	<2	<2

ns = not sampled

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