FINAL SHELTER ISLAND YACHT BASIN 2022 BACTERIA SPECIAL STUDY TECHNICAL REPORT



Submitted to:



Port of San Diego 3165 Pacific Highway San Diego, California 92101

Prepared by:



Wood Environment & Infrastructure Solutions, Inc.
9177 Sky Park Court
San Diego, California 92123
September 2022
Wood Project No. 2015100116

TABLE OF CONTENTS

			Page					
ACR	ONYMS	S AND ABBREVIATIONS	iii					
UNIT	SOF	MEASURE	iii					
EXE(CUTIVE	SUMMARY	ES-1					
1.0	INTF	RODUCTION	1-1					
	1.1	Applicable Regulations and Advisories	1-1					
2.0	METHODS							
	2.1	Bacterial Water Quality Study Design	2-1					
		2.1.1 Sample Collection Locations	2-1					
		2.1.2 Sample Collection and Handling	2-4					
		2.1.3 Water Quality Measurements	2-4					
		2.1.4 Field Observations and Notes	2-4					
		2.1.5 Laboratory Analyses	2-4					
		2.1.6 Data Analysis	2-5					
	2.2	Quality Assurance and Quality Control	2-6					
		2.2.1 Field QA/QC	2-6					
		2.2.2 Laboratory Analytical QA/QC	2-6					
	2.3	Data Management	2-6					
3.0	RES	ULTS	3-1					
	3.1	Weekly Sampling Events	3-1					
	3.2	Weekend Sampling Events						
	3.3	Safe Harbor Sampling Event						
	3.4	Calculated Geometric Mean (GM) and Statistical Threshold Value	e (STV) Results					
		for All Locations	3-8					
		3.4.1 Geometric Mean (GM) Results	3-8					
		3.4.2 Statistical Threshold Value (STV) Results	3-10					
	3.5	Outfall Sampling	3-10					
	3.6	QA/QC Results	3-14					
4.0	DISC	CUSSION	4-1					
	4.1	Weekly Sampling Events	4-1					
	4.2	Weekend Sampling Events	4-1					
	4.3	Safe Harbor Sampling Event	4-1					
	4.4	Calculated Geometric Mean (GM) and Statistical Threshold Value	e (STV) Results					
		for All Locations	4-3					
		4.4.1 Geometric Mean (GM) Results	4-3					
		4.4.2 Statistical Threshold Value (STV) Results	4-3					
	4.5	Outfall Sampling	4-3					
	4.6	QA/QC Results	4-3					
5.0	CON	ICLUSIONS	5-1					
6.0	REFERENCES6-1							

LIST OF TABLES

F	Page
Table 1-1. REC-1 Basin Plan Bacteria Water Quality Objectives for Shelter Island Yacht Basin	1-2
Table 1-2. San Diego County Department of Environmental Health and Quality Beach and B Monitoring Program- AB 411 Bacteria Standards	•
Table 2-1. Sampling Scheme and Timeline	2-3
Table 2-2. Laboratory Analytical Methods and Target Reporting Limits	2-5
Table 3-1. Weekly Single-Sample FIB Results Summary Table	3-2
Table 3-2. Weekend and Safe Harbor Single-Sample FIB Results Summary Table	3-6
Table 3-3. Geometric Mean (GM) FIB Results Summary Table	3-9
Table 3-4. Enterococcus Statistical Threshold Value (STV) Results Summary Table	3-10
Table 3-5. Outfall Dry Weather Flow Single-Sample FIB Results Summary Table	3-12
Table 3-6. AB 411 Single-Sample Maximum (SSM) FIB Exceedances Summary	3-13
Table 3-7. Geometric Mean (GM) FIB Exceedances Summary	3-13
Table 3-8. Statistical Threshold Value (STV) Enterococcus Exceedances Summary	3-14
LIST OF FIGURES	
F	Page
Figure 2-1. SIYB Bacteria Special Study Sampling Locations	2-2
Figure 3-1. Weekly Single-Sample FIB Results Summary	. 3-3
Figure 3-2. Field Photographs	. 3-4
Figure 3-3. Weekend and Safe Harbor Single-Sample FIB Results Summary	3-7
Figure 3-4. Outfall Dry Weather Flow Single-Sample FIB Results Summary	3-12
Figure 4-1. A-1 Anchorage <i>Enterococcus</i> Results Summary	4-2
Figure 4-2. A-1 Anchorage Total Coliform Results Summary	4-2
LIST OF APPENDICES	

APPENDIX A FIELD DATA FORMS

APPENDIX B FIELD DATA SUMMARY TABLES

APPENDIX C MICROBIOLOGY LABORATORY REPORTS

ACRONYMS AND ABBREVIATIONS

A1 A-1 Anchorage AB Assembly Bill

Basin Plan Water Quality Control Plan for the San Diego Basin

City City of San Diego COC chain-of-custody

DEHQ San Diego County Department of Environmental Health and Quality

EDD electronic data deliverable

ELN Environmental Laboratory Network, Inc.

FIB fecal indicator bacteria
GM geometric mean

ID identifier

IDEXX IDEXX Laboratories

ISWEBE Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and

Estuaries of California

MC main channel
NA not applicable
ND not-detected
OF outfall

PDF Portable Document Format
Port San Diego Unified Port District

QA quality assurance QC quality control

REC-1 "Contact Water Recreation" beneficial uses according to the Basin Plan

REF reference

Regional Board California Regional Water Quality Control Board, San Diego Region

SD standard deviation

SIYB Shelter Island Yacht Basin

SIYB Bacteria Special SIYB Bacteria Special Study Sampling and Analysis Plan & Quality

Study Work Plan Assurance Project Plan

SM Standard Method
SSM single sample maximum
STV statistical threshold value

SWAMP Surface Water Ambient Monitoring Program

TMDL Total Maximum Daily Load

USEPA United States Environmental Protection Agency
Wood Wood Environment & Infrastructure Solutions, Inc.

WQO water quality objective YSI YSI Incorporated

UNITS OF MEASURE

% percent
< less than
> greater than

CFU colony-forming units gpm gallon(s) per minute

mL milliliter(s)

MPN most probable number

EXECUTIVE SUMMARY

This technical report has been prepared by Wood Environment & Infrastructure Solutions, Inc. (Wood) to summarize the purpose, methods, and findings from the Bacteria Special Study conducted in Shelter Island Yacht Basin (SIYB) during May 2022. This study was undertaken by the San Diego Unified Port District (Port) to address bacterial water quality concerns from various stakeholders, including possible illicit discharge and point sources of potential pollution (e.g., storm water outfalls). Since regular monitoring of fecal indicator bacteria (FIB) is not currently performed in SIYB, this study was designed to determine overall magnitude and extent of FIB in SIYB during critical dry weather conditions. Critical spatial conditions include potential source areas, including outfalls, as well as active beach and launching areas throughout the basin. Additionally, critical temporal conditions include periods when guest vessels are permitted to anchor at the public anchorage (A-1 Anchorage) under the following conditions: 1) during a weekend, with an approved permit; or 2) during a Safe Harbor warning due to unsafe weather conditions (i.e., no permit required). To address this concern, the study also included the collection of FIB samples before, during, and after the presence of guest vessels at the A-1 Anchorage.

The principal objective of this study is to determine the overall magnitude and extent of FIB in SIYB during dry weather at these targeted areas. The design of the study included the collection of a single grab sample for FIB testing along with detailed field observations during each of the following events and specified areas:

- 1. Four **weekly** sampling events (i.e., before and after the presence of guest vessels at the A-1 Anchorage), samples collected from all locations.
- 2. Two **weekend** sampling events (i.e., while guest vessels were present at the A-1 Anchorage with approved permits), temporal samples collected within the anchorage and reference station only.
- 3. One **Safe Harbor** event (i.e., while guest vessels were present at the A-1 Anchorage due to unsafe weather conditions, permit not required), temporal samples collected within the anchorage and reference station only.

In addition, supplemental FIB samples were collected directly from outfalls if dry weather flow was observed during sample collection events. FIB results from all areas of interest were compared to geometric mean (GM), single sample maximum (SSM), and/or statistical threshold value (STV) regulatory thresholds used by the San Diego County Department of Environmental Health and Quality (DEHQ) or as stated in the Water Quality Control Plan for the San Diego Basin (Basin Plan) for Water Contact Recreation (REC-1) beneficial use.

Results from this study indicate that concentrations of FIB were below regulatory thresholds in nearly all samples collected from SIYB. Assembly Bill (AB) 411 SSM standards for *Enterococcus* were exceeded in receiving water samples collected adjacent to a storm water outfall near Bessemer Beach (OF-2) during multiple sampling events. *Enterococcus* SSM standards were also exceeded at one anchorage site during the Safe Harbor event and at Kellogg Beach and North Kellogg Beach sites during one weekly collection event. Of note, the single Safe Harbor exceedance result is a statistical outlier and was rejected during validation. While minor elevated FIB concentrations were observed with the presence of vessels in the A-1 Anchorage, all results remained below regulatory thresholds. Total coliform SSM regulatory standards were exceeded only in OF-2 receiving water samples that were influenced by dry weather flow. The Basin Plan STV standard for *Enterococcus* was exceeded in more than ten percent of samples at Kellogg Beach, North Kellogg Beach, and OF-2 sample sites. The GM regulatory thresholds for both *Enterococcus* and total coliforms were exceeded only in samples collected from site OF-2.

1.0 INTRODUCTION

Shelter Island Yacht Basin (SIYB) is a recreational yacht basin near the mouth of San Diego Bay, California, and is composed of marinas and yacht clubs, an anchorage, a fuel dock, and other facilities that support recreational boating, swimming, paddle boarding, beachgoing, and fishing. The basin includes the Contact Water Recreation (REC-1) beneficial use according to the Water Quality Control Plan for the San Diego Basin (Basin Plan)¹.

Recently, various stakeholders have expressed interest regarding potential water quality pollution in the basin due to possible illicit discharges and likely point sources. These areas of interest include beach areas, receiving water nears outfalls, and the public anchorage (A-1 Anchorage). Currently, monitoring for fecal indicator bacteria (FIB) is not performed regularly within SIYB², so it was unknown whether FIB was present and if so, to what extent. To address this data gap, the San Diego Unified Port District (Port) conducted this Bacteria Special Study in SIYB to assess FIB levels within the basin.

In collaboration with the Port, Wood Environment & Infrastructure Solutions, Inc. (Wood) developed a SIYB Bacteria Special Study Sampling and Analysis Plan & Quality Assurance Project Plan (SIYB Bacteria Special Study Work Plan; Wood, 2022), dated April 2022. This plan was designed to answer the following study questions:

- What is the extent and magnitude of ambient dry weather FIB levels within SIYB relative to REC-1 water quality objectives (WQOs)?
- Are there concentrations of FIB that exceed REC-1 WQOs associated with active periods of A-1 Anchorage weekend or Safe Harbor use?
- Are there concentrations of FIB that exceed REC-1 WQOs associated with beaches or outfalls?

1.1 Applicable Regulations and Advisories

The Basin Plan establishes WQOs to preserve and enhance water quality and to protect designated beneficial uses of regional waters. Examples of beneficial uses include: Shellfish Harvesting (SHELL), Navigation (NAV), Marine Habitat (MAR), Wildlife Habitat (WILD), Non-contact Water Recreation (REC-2), and Contact Water Recreation (REC-1), among many others. San Diego Bay, including SIYB, has multiple designated beneficial uses, including REC-1³. The Basin Plan has established bacterial WQOs for ocean waters designated for REC-1 water contact recreation. In September 2021, the regional Basin Plan bacterial WQOs were

¹ Water Quality Control Plan for the San Diego Basin-Region 9 (Basin Plan), California Regional Water Quality Control Board, San Diego Region (Regional Board), 1994. Updated with amendments effective on or before September 1, 2021 (https://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan).

² Shelter Island Shoreline Park, a coastal access point along the southeast shoreline of Shelter Island, is regularly sampled for FIB according to the Total Maximum Daily Load (TMDL) for indicator bacteria established in Resolution No. R9-2008-0027. There is no direct contact between this site and the basin waters of SIYB.

³ See Table 2-3 of the Basin Plan (Regional Board, 2021).

updated to reflect revisions developed by the California State Water Resources Control Board and approved by the United States Environmental Protection Agency (USEPA) in 2019. These Basin Plan updates included the removal of total and fecal coliform WQOs and established *Enterococcus* WQOs for saline inland surface waters, enclosed bays, and estuaries. Monitoring for this study followed the 2021 Basin Plan update to test for *Enterococcus* in seawater, while also screening for total coliforms as an additional line of evidence to determine the extent and magnitude of FIB in SIYB. Since there are no REC-1 WQOs for total coliforms in the 2021 Basin Plan, Assembly Bill (AB) 411 water quality standards followed by the San Diego County Department of Environmental Health and Quality (DEHQ)⁴ were used for reference.

In addition to total coliforms, AB 411 includes standards for fecal coliform and *Enterococcus*. While *Escherichia coli* (*E. coli*), a subset species of fecal coliforms, were measured by the laboratory for this study, these results were not included in the analysis due to issues associated with the analytical method for the detection of *E. coli* in seawater samples (Pisciotta et al., 2002). For *Enterococcus*, AB 411 standards differ slightly from WQOs included in the Basin Plan. For example, AB 411 *Enterococcus* standards include a single-sample maximum (SSM) value, which is based on the collection of a single grab sample, while the Basin Plan provides a statistical threshold value (STV), which is calculated based on the results of multiple samples. Due to the simplicity of using the SSM to compare single values during each event, and because the DEHQ still follows the AB 411 standards, *Enterococcus* results were compared to SSM AB 411 standards in addition to the STV and geometric mean (GM) WQOs in the Basin Plan.

FIB hereafter refers to the collection and testing of *Enterococcus* and total coliforms, unless otherwise specified. The Basin Plan WQOs for *Enterococcus*, for waters with salinity greater than one part per thousand, and the AB 411 standards for total coliform and *Enterococcus* used by the DEHQ are presented in Table 1-1 and Table 1-2, respectively. For the purposes of this study, plate-based standards for colony-forming units (CFUs) are deemed equivalent to liquid-based results provided in most-probable number (MPN) units.

Table 1-1. REC-1 Basin Plan Bacteria Water Quality Objectives for Saline Waters⁵

Indicator	GM ^a (CFU/100 mL)	STV ^b (CFU/100 mL)
Enterococcus	30	110

Notes: CFU = colony-forming units; GM= geometric mean; mL = milliliter; REC-1 = Contact Water Recreation beneficial use; STV = statistical threshold value; WQO = water quality objective

- a- As described in the Basin Plan, the geometric mean (GM) shall not be greater than the applicable GM magnitude in any six-week interval, calculated weekly. Due to the four-week duration of the study, a modified four-week GM was calculated and qualified when compared to the water quality objective (WQO).
- b- The statistical threshold value (STV) shall not be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

_

⁴ Total coliform and *Enterococcus* standards are provided for the County of San Diego DEHQ Beach and Bay Monitoring Program for recreational water use and are based on AB 411 bacteria standards (https://www.sandiegocounty.gov/content/dam/sdc/deh/lwqd/Beach&Bay/DEHQ bb public summary.pdf). Total coliform WQOs were previously included in the Basin Plan prior to the 2021 update and provide an additional line of evidence to assess the extent and magnitude of FIB in SIYB.

⁵ Objectives are presented in the Basin Plan for water contact recreational uses (REC-1 beneficial use) in all waters where the salinity is greater than 1 part per thousand more than 5 percent of the time (Regional Board, 2021).

Table 1-2. San Diego County Department of Environmental Health and Quality Beach and Bay Monitoring Program- AB 411 Bacteria Standards⁴

Indicator	30-day GM ^a (CFU/100 mL)	SSM (CFU/100 mL)	
Total coliform	1,000	10,000	
Enterococcus	35 ^b	104	

Notes: CFU = colony-forming units; mL = milliliter; GM = geometric mean; SSM = single sample maximum; WQO = water quality objective

a- A 30-day GM calculated based on five or more samples collected in 30 days.

b- The 30-day GM for *Enterococcus* under AB 411 is presented here for reference only. All GM calculations for *Enterococcus* presented in this technical report are compared to Basin Plan GM WQOs (see Table 1-1).

2.0 METHODS

Sampling design, sample collection and handling procedures, and analytical test methods that were employed by the field and laboratory teams for the SIYB Bacteria Special Study are discussed in this section.

2.1 Bacterial Water Quality Study Design

Water samples were collected and analyzed in accordance with the SIYB Bacteria Special Study Work Plan (Wood, 2022). FIB samples were collected weekly over a four-week period (Table 2-1). Two weekends and a qualifying "Safe Harbor" event were also included in the study, aimed at sampling while transient vessels were present in the A-1 Anchorage area of the basin. Sampling locations were selected to target potential sources of bacteria such as beaches, storm water outfalls, and transitory anchorages. All sampling times were targeted during the outgoing tide and before the low tide to the extent practical. This was done to capture bacteria that may be introduced from the inner tidal flat during the receding tide. In addition, when storm drain outfalls were observed to be flowing, supplemental samples from the outfall discharge were collected prior to reaching the receiving water. FIB samples collected during weekend and Safe Harbor events at the A-1 Anchorage were collected at three locations (A1-1, A1-2, A1-3) and at three times (0, 1 hour and 2 hours) in order to evaluate temporal variability (see Table 2-1).

2.1.1 Sample Collection Locations

All samples were collected within 25 feet of the sampling locations identified in the SIYB Bacteria Special Study Work Plan (Wood, 2022) and provided in Figure 2-1. The selected sample locations are targeted by design (USEPA, 2002). Sites were selected due to their proximity to either (1) a potential pollutant source (e.g., outfall or public anchorage), or (2) a beach or launch site. Two sites in the main channel were also included to capture ambient basin conditions, in addition to one reference site outside of SIYB, as these stations are away from potential direct FIB sources.

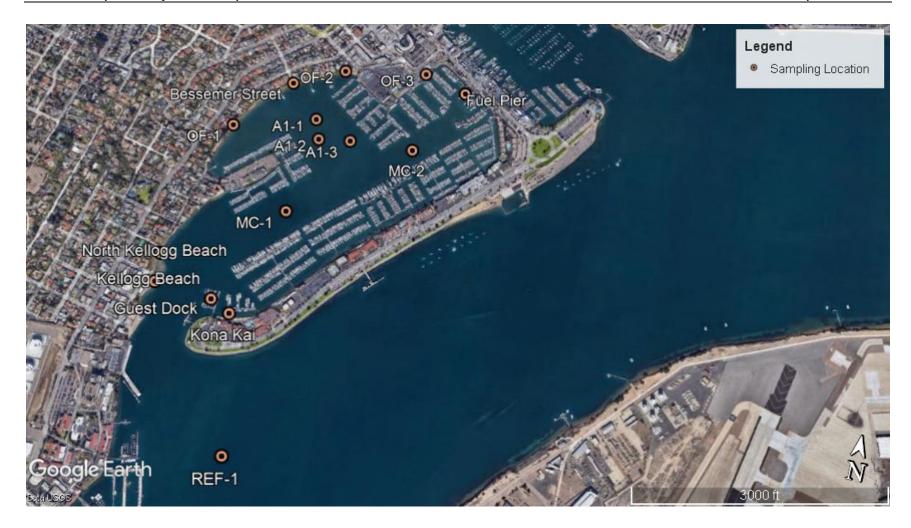
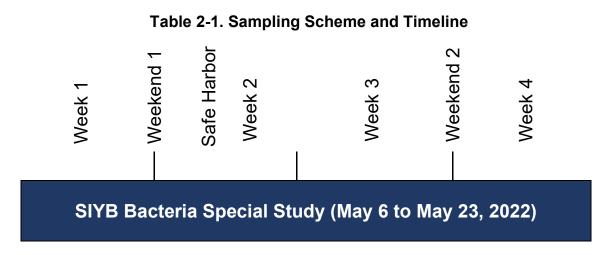


Figure 2-1. SIYB Bacteria Special Study Sampling Locations

Notes: A1 = A-1 Anchorage; MC = main channel; OF = outfall; REF = reference site



Sampling Event	Time of Sample Collection	Time and Height of Low Tide	Number of Vessels in A-1 Anchorage	Description
Week 1 – Friday, May 6, 2022	06:00-08:45	08:13 (0.46 ft)	0-1	FIB samples were collected from all monitoring sites prior to arrival of guest vessels at the A-1 Anchorage.
Weekend 1 – Saturday, May 7, 2022	06:25-09:15	09:26 (0.58 ft)	20–21	A single reference site sample and three replicate FIB samples were collected over a two-hour period (time 0, 1, and 2) at the three A-1 Anchorage sites.
Safe Harbor Event – Tuesday, May 10, 2022	07:55-11:00	12:09 (0.40 ft)	21	A single reference site sample and three replicate FIB samples were collected over a two-hour period (time 0, 1, and 2) at the three A-1 Anchorage sites during a Safe Harbor warning (i.e., vessels do not require a permit to anchor).
Week 2 – Friday, May 13, 2022	07:50-10:30	02:05 (0.33 ft)	3	FIB samples were collected from all monitoring sites. Due to the Safe Harbor warning (Monday–Thursday), sampling was not performed until Friday prior to arrival of guest vessels.
Week 3 – Friday, May 20, 2022	05:55-08:55	07:58 (-0.89 ft)	2	FIB samples were collected from all monitoring sites prior to arrival of guest vessels at the A-1 Anchorage.
Weekend 2 – Saturday, May 21, 2022	06:15-09:00	09:07 (-0.56 ft)	15	A single reference site sample and three replicate FIB samples were collected over a two-hour period (time 0, 1, and 2) at the three A-1 Anchorage sites.
Week 4 – Monday, May 23, 2022	08:00-10:25	11:13 (-0.02 ft)	3–6	FIB samples were collected from all monitoring sites after departure of guest vessels at the A-1 Anchorage.

2.1.2 Sample Collection and Handling

For each monitoring event, Wood staff collected surface water samples from a vessel at each of the sampling locations presented in Figure 2-1. FIB samples were collected following the Surface Water Ambient Monitoring Program (SWAMP) "clean hands" sampling techniques to avoid contamination (see Section 3.4 of the SWAMP Clean Water Team Citizen Monitoring Program, Guidance Compendium for Watershed Monitoring and Assessment). Samples were always collected upwind and up current to avoid any potential influences from the monitoring vessel. For shoreline sites, surface water samples were collected in shallow water, at an approximate water depth of one to two feet. If an outfall was observed to be discharging, supplemental samples were collected directly from the discharge prior to reaching the receiving water. After collection, samples were immediately placed in a Ziploc® bag and stored in a clean cooler with frozen ice packs. After each monitoring event, samples were immediately transported to the analytical laboratory to meet holding time requirements.

2.1.3 Water Quality Measurements

In situ water quality measurements (temperature, pH, dissolved oxygen, salinity) were recorded using a YSI ProDSS handheld meter at each site. Measurements were taken near the depth where FIB samples were collected (i.e., just below the surface) and recorded on field data forms (Appendix A). Water transparency was also assessed using a Secchi disk. Tabulated data from field water quality measurements is provided in Appendix B.

2.1.4 Field Observations and Notes

During each sampling event, detailed observations and notes were recorded on field data forms (Appendix A). This included any observations regarding potentially influential factors, including but not limited to: weather conditions; tides; presence of animals, debris, people, and vessels.

2.1.5 Laboratory Analyses

After collection was completed, samples were transported to Environmental Laboratory Network, Inc. (ELN) under customary chain-of-custody (COC) protocols. Samples were analyzed for total coliforms by IDEXX Laboratories (IDEXX) Quanti-Tray Collect method (Standard Method [SM] 9223) and for *Enterococcus* by IDEXX Quanti-Tray Enterolect method (Table 2-2).

MPN/100 mL

MPN/100 mL

Laboratory Analytical Methods and Target Reporting Limits Target Indicator Method Reporting **Units** Limits^a

10 –

2.400.000

10 -

2.400.000

Table 2-2.

Enumeration IDEXX Quanti-Tray Colilert -

SM9223 Enumeration IDEXX Quanti-Tray -

Enterolert

2.1.6 Data Analysis

Total coliforms^b

Enterococcus

Calculations were performed to determine the GM and STV for each sampling location for comparison to regulatory standards. These calculations are briefly described below:

Geometric Mean (GM)

As described in the Basin Plan, the GM calculated for *Enterococcus* shall not be greater than the applicable GM magnitude in any six-week interval, calculated weekly. Due to the four-week duration of the study, a modified four-week GM was calculated and qualified when compared to the WQO. In comparison, the AB 411 standards used by the DEHQ specify a 30-day GM be calculated and applied to samples collected within the associated time period. Both GM standards recommend a minimum sample size of five. The GM was calculated regardless of sample size for the purposes of this special study; however, it should be noted that less than five samples were collected from several of the site locations (see Table 3-3). Additionally, the GM was calculated by conservatively using the method detection limit value (10 MPN/100 mL) for samples that were reported as not-detected (ND)⁶. Similar notes describing calculation methodology are included in all GM tables.

Statistical Threshold Value (STV)

The STV represents a value that is not to be exceeded by more than 10 percent of samples collected in a calendar month, thereby estimating the 90th percentile of water quality distribution. The Basin Plan STV for Enterococcus is 110 CFU/100 mL. The number of samples exceeding this value was divided by the total number of samples collected over the month from the corresponding sample location. If the resulting percentage was greater than 10 percent, the sample location was determined to have exceeded the STV.

Notes: DEHQ = San Diego Department of Environmental Health and Quality; ELN = Environmental Laboratory Network, Inc.; IDEXX = IDEXX Laboratories; mL = milliliter; MPN = most probable number; SM = Standard Method; USEPA = United States **Environmental Protection Agency**

a- Reporting limits provided by Environmental Laboratory Network, Inc. (ELN) and are for seawater. Two dilutions were performed to capture a range of reporting limits.

b- Currently, Colilert is not USEPA-approved to measure total coliforms in ambient water; however, regional water boards may approve of this method on a case-by-case basis (e.g., DEHQ has approval). The measurement of total coliforms using the Colilert method is performed to serve as an additional line of evidence to Enterococcus results only.

⁶ The GM is calculated by taking the nth root of the product of values of all monitoring results and therefore ND values cannot be considered as zero. Instead, the detection limit (10 MPN/100 mL) is used as a positive conservative value for the GM calculation. However, ND values are considered to be zero in all remaining calculations (e.g., average, standard deviation) to differentiate from the samples in which FIB concentrations were reported at the detection limit.

2.2 Quality Assurance and Quality Control

This section describes the quality assurance and quality control (QA/QC) procedures for all field activities and laboratory analyses. Specific QA/QC procedures are provided in detail in the approved project-specific SIYB Bacteria Special Study Work Plan (Wood, 2022).

2.2.1 Field QA/QC

Sampling process QA/QC included preparation prior to, during, and after sample collection to minimize the possibility of compromising sample integrity. This included ensuring proper sampling techniques were followed as described in the SIYB Bacteria Special Study Work Plan (Wood 2022), and extra precautions were taken to minimize the potential for sample contamination (i.e., using anti-bacterial wipes to clean coolers, supplies, etc.). Additionally, QA checklists are provided on the back of each field data form (Appendix A). A field blank of deionized water was collected during each field event and submitted for FIB testing. In addition, a single field duplicate sample was collected from a randomly identified station during each event.

COC procedures were used for all samples throughout the collection, transport, and analytical process. Completed COC forms are provided in the laboratory reports in Appendix C. The project-specific work plan (Wood, 2022) provides more information regarding COC procedures.

2.2.2 Laboratory Analytical QA/QC

The QA objectives for the bacteriological analysis conducted by ELN is provided in the laboratory QA manual. Results of all laboratory QA/QC analyses are reported in laboratory reports provided in Appendix C.

2.3 Data Management

The laboratory supplied analytical results in Adobe Portable Document Format (PDF) and electronic data deliverable (EDD) files. After completion of the data review by the laboratory, results were forwarded to Wood for review and reporting. All laboratory records that were submitted are included in Appendix C.

3.0 RESULTS

This section provides FIB results from the Bacteria Special Study and identifies any exceedances above AB 411 and/or Basin Plan standards. Raw FIB results are presented by event type in Sections 3.1 to 3.3 for comparison to AB 411 SSM bacteria standards. Additionally, the calculated GM and STV (used for AB 411 and/or Basin Plan standards), supplemental sampling, and QA/QC sample results are provided in Sections 3.4 to 3.6. Results that exceeded AB 411 and/or Basin Plan standards are provided in Tables 3-6 to 3-8. Graphs summarizing results for each sampling event and outfall collection are presented in Figures 3-1, 3-3, and 3-4. Field photographs are included in Figure 3-2. Tabulated field data, including water quality measurements, are provided in Appendix B.

3.1 Weekly Sampling Events

Weekly sampling results are provided in Table 3-1 and Figure 3-1; WQO exceedances are presented in Tables 3-6 through 3-8. Results from all sampling locations were below *Enterococcus* and total coliform AB 411 standards for all four weekly sampling events with the exception of OF-2 (n= 4 events), Kellogg Beach (n= 1 event), and North Kellogg Beach (n= 1 event) sites. Site OF-2, which is collected from the receiving water directly adjacent to the storm water outfall, exceeded AB 411 SSM criteria of 104 CFU/100 mL for *Enterococcus* during all four weekly sampling events. This site also exceeded AB 411 SSM criteria of 10,000 CFU/100 mL for total coliform during Week 1 and Week 3 sampling events. Discharge was observed flowing from this outfall (Figure 3-2) during all weekly sampling events, except for Week 2 when the outfall was inundated with bay water due to tidal influence. A full description of supplemental outfall sampling and a summary of outfall dry weather flow results is provided in Section 3.5.

Samples collected from Kellogg Beach and North Kellogg Beach (Figure 3-2) exceeded the AB 411 SSM criteria of 104 CFU/100 mL for *Enterococcus* during the Week 3 sampling event. *Enterococcus* results from these sites were reported at 223 MPN/100 mL and 226 MPN/100 mL, respectively. Total coliform results from these sites during the Week 3 sampling event were below SSM criteria. The calculated GM and STV results for these sites are provided in Section 3.4.

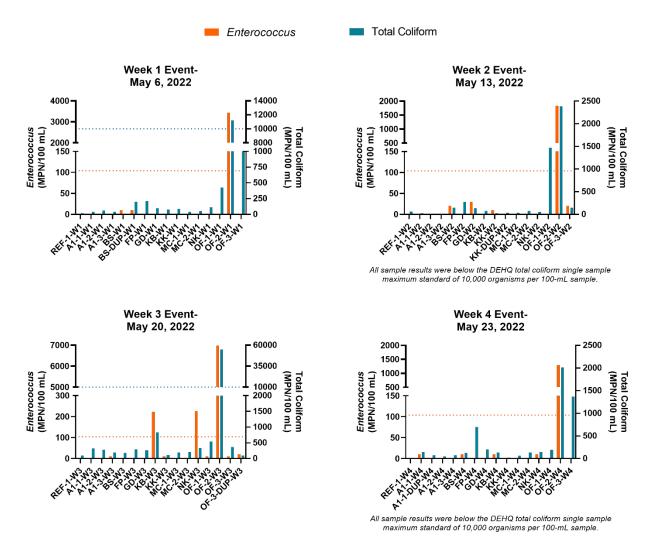
Table 3-1. Weekly Single-Sample FIB Results Summary Table

	Sample Results (MPN/100 mL)								
	5/6/2022		5/13/	5/13/2022		5/20/2022		5/23/2022	
Sample Location	We	ek 1	Week 2		Week 3		Week 4		
	Enterococcus	Total Coliforms	Enterococcus	Total Coliforms	Enterococcus	Total Coliforms	Enterococcus	Total Coliforms	
A1-1	ND	41	ND	20	ND	327	10	145	
A1-2	ND	63	ND	10	ND	282	ND	52	
A1-3	ND	41	ND	10	10	189	ND	74	
Bessemer Street	10	10	20	146	ND	175	10	122	
Fuel Pier	ND	211	ND	272	ND	292	ND	697	
Guest Dock	ND	97	30	135	ND	256	ND	201	
Kellogg Beach	ND	75	ND	73	223	836	10	132	
Kona Kai	ND	85	10	20	10	110	ND	20	
Main Channel-1	ND	41	ND	31	ND	197	ND	63	
Main Channel-2	ND	52	ND	74	ND	201	ND	134	
North Kellogg Beach	ND	110	ND	52	226	328	10	145	
OF-1	ND	426	ND	1,470	10	537	ND	193	
OF-2	3,440	11,200	1,830	2,380	6,970	54,800	1,290	2,010	
OF-3	ND	1,080	20	146	10	368	ND	1,370	
REF	ND	20	ND	63	ND	97	ND	ND	

Notes:

A1 = A-1 Anchorage; AB = Assembly Bill; CFU = colony-forming units; FIB = fecal indicator bacteria; mL = milliliter; MPN = most probable number; OF = outfall; REF = reference; SSM = single sample maximum

Values in BOLD indicate an exceedance of AB 411 SSM criteria (104 CFU/100 mL for Enterococcus and 10,000 CFU/100 mL for total coliforms).



Notes: A1 = A1 Anchorage; BS = Bessemer Street; DUP = duplicate; FP = Fuel Pier; GD = Guest Dock; KB = Kellogg Beach; KK = Kona Kai; MC = Main Channel; mL = mililiter; MPN = most probable number; NK = North Kellogg Beach; OF= Outfall; REF = reference; W = week

Figure 3-1. Weekly Single-Sample FIB Results Summary

Dashed lines indicate Assembly Bill (AB) 411 single sample maximum (SSM) criteria for Enterococci (104 colony-forming units [CFU]/100 mL; in orange) and total coliforms (10,000 CFU/100 mL; in blue). These standards are used by the San Diego County Department of Environmental Health and Quality (DEHQ).



Dry weather flow was observed during multiple sample events from the storm water outfall located adjacent to OF-2 receiving water site.



The presence of humans, birds, and animals (including dogs) was recorded on field data forms during all sampling events.



Field staff use established SWAMP field sampling techniques to collect a dry weather flow sample from OF-2.



Floating eelgrass and organic debris were observed during sample collection at Kellogg and North Kellogg Beach on May 20.



The number of vessels present at the A-1 Anchorage was recorded during all sampling events. This photo was taken during the Safe Harbor event on May 10.



Water quality measurements, including water clarity assessed using a Secchi disk, were performed at all sample locations.

Figure 3-2. Field Photographs

3.2 Weekend Sampling Events

Weekend sampling results are provided in Table 3-2 and Figure 3-3; WQO exceedances are presented in Tables 3-6 through 3-8. The calculated GM and STV results for these events are provided in Section 3.4. All A-1 Anchorage and reference samples collected during weekend sampling events were below AB 411 SSM standards. Because the storm water outfall adjacent to site OF-2 was observed to be flowing during both weekend sampling events, supplemental discharge samples were collected. During the Weekend 2 event, a supplemental receiving water sample from site OF-2 was also collected. This sample exceeded AB 411 SSM standards for both *Enterococcus* and total coliforms. Results from these supplemental samples are presented in Table 3-6.

3.3 Safe Harbor Sampling Event

Safe Harbor sampling results are provided in Table 3-2 and Figure 3-3; WQO exceedances are presented in Tables 3-6 through 3-8. The calculated GM and STV results for this event are provided in Section 3.4. All A-1 Anchorage and reference samples collected during the Safe Harbor sampling event were below AB 411 SSM standards with the exception of the second replicate sample collected from site A1-3. *Enterococcus* results from this sample were reported at 1,150 MPN/100 mL, exceeding AB 411 SSM standards of 104 CFU/100 mL. Total coliform results from this sample were reported at the detection limit (10 MPN/100 mL), significantly below SSM standards. However, during the data validation process, this result was rejected based on statistical analysis and additional lines of evidence as described in Section 4.3.

Table 3-2. Weekend and Safe Harbor Single-Sample FIB Results Summary Table

				Sample Results	(MPN/100 mL)		
	Replicate (R)	5/7/2	022	5/10/2	2022	5/21/2	2022
Sample Location	Number	Weekend 1		Safe Harbor		Weekend 2	
		Enterococcus	Total Coliforms	Enterococcus	Total Coliforms	Enterococcus	Total Coliforms
	R1 (h0)	ND	86	ND	31	10	63
	R2 (h1)	20	63	ND	41	ND	41
A1-1	R3 (h2)	ND	201	10	63	10	41
	Average	7	117	3	45	7	48
	SD	9	60	5	13	5	10
	R1 (h0)	ND	86	ND	20	ND	63
	R2 (h1)	ND	20	ND	85	ND	52
A1-2	R3 (h2)	ND	201	63	1,010	20	41
	Average	0	102	21	372	7	52
	SD	0	75	30	452	9	9
	R1 (h0)	ND	41	ND	5,170	ND	74
	R2 (h1)	ND	41	1150*,a	10ª	41	41
A1-3	R3 (h2)	ND	74	ND	1,130	40	410
	Average	0	52	0	3,150	27	175
	SD	0	16	0	2,020	19	167
All Ad Citor	Average	2	90	9	944	13	92
All A1 Sites	SD	6	63	21	1,655	16	113
REF-1	NA	ND	ND	ND	31	10	31

Notes: A1 = A-1 Anchorage; AB = Assembly Bill; CFU = colony-forming units; FIB = fecal indicator bacteria; h0 = hour 0; h1 = hour 1; h2 = hour 2; mL = milliliter; MPN = most probable number; ND = not-detected; REF = reference; SD = standard deviation; SSM = single sample maximum

Values in **BOLD** indicate an exceedance of AB 411 SSM criteria (104 CFU/100 mL for *Enterococcus* and 10,000 CFU/100 mL for total coliforms).

ND values are assumed to be zero for calculation purposes.

Three replicate samples were collected at each A1 sample location over a two-hour period (e.g., hour 0, 1, and 2).

^{*-}Sample result was determined to be an outlier using Grubb's Test (Grubbs, 1969).

a- Result was attributed to a transcriptional error and rejected during validation. This sample is excluded from further analyses as described in Section 4.3.

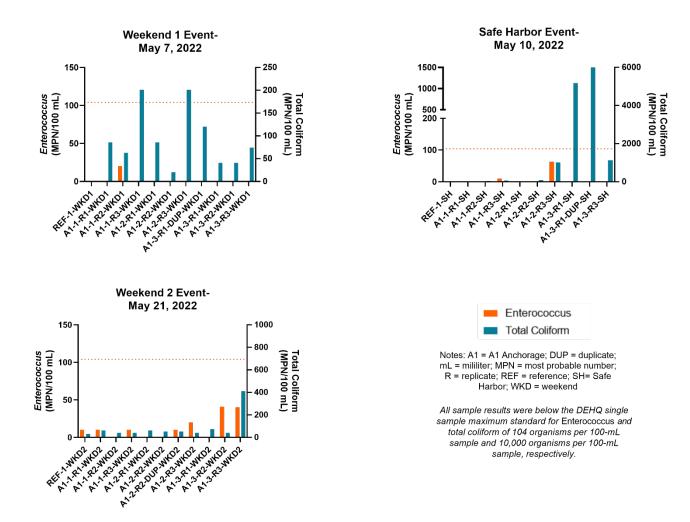


Figure 3-3. Weekend and Safe Harbor Single-Sample FIB Results Summary

Dashed lines indicate Assembly Bill (AB) 411 single sample maximum (SSM) criteria for Enterococcus (104 colony-forming units [CFU]/100 mL; in orange). AB 411 standards are used by the San Diego County Department of Environmental Health and Quality (DEHQ).

3.4 Calculated Geometric Mean (GM) and Statistical Threshold Value (STV) Results for All Locations

The GM and STV calculations were performed using results from all samples⁷ collected during the study (Weekly, Weekend, and Safe Harbor) and compared to AB 411 and/or Basin Plan standards as discussed in Section 2.1.6. Results from these calculations are presented in Sections 3.4.1 and 3.4.2, respectively.

3.4.1 Geometric Mean (GM) Results

Calculated GM results are presented in Table 3-3; exceedances are presented in Table 3-7. The calculated GM⁸ for all sampling locations were below AB 411 and Basin Plan standards for both *Enterococcus* and total coliform with the exception of site OF-2. The *Enterococcus* GM of 4,077 MPN/100 mL exceeded the Basin Plan WQO of 30 CFU/100 mL and the total coliform GM of 11,154 MPN/100 mL exceeded AB 411 GM standard of 1,000 CFU/100 mL for this site.

⁷ One *Enterococcus* exceedance was reported in sample A1-3-R2 collected during the Safe Harbor event. This result was determined to be a statistical outlier, rejected during validation, and therefore this sample was excluded from analyses.

⁸ The GM was calculated by conservatively using the method detection limit value (10 MPN/100 mL) for samples that were reported as ND as described in Section 2.1.6.

Table 3-3.

Geometric Mean (GM) FIB Results Summary Table

	Commis Cina	Enterococcus	Total Coliform
Station Location	Sample Size (n) ²	Geometric Mean ¹ (MPN/100 mL)	30-Day Geometric Mean (MPN/100 mL)
A1-1	13	11	65
A1-2	13	12	69
A1-3	12	13	115
Bessemer Street	4	12	75
Fuel Pier	4	10	329
Guest Dock	4	13	161
Kellogg Beach	4	22	157
Kona Kai	4	10	44
Main Channel-1	4	10	63
Main Channel-2	4	10	101
North Kellogg	4	22	128
OF-1	4	10	505
OF-2	5	4,077	11,154
OF-3	4	12	531
REF	7	10	27

Notes:

A1 = A-1 Anchorage; AB = Assembly Bill; CFU = colony-forming units; FIB = fecal indicator bacteria; mL = milliliter; MPN = most probable number; OF = outfall; n = number of samples; REF = reference; WQO = water quality objective Values in **BOLD** indicate an exceedance above the Basin Plan WQO for *Enterococcus* (30 CFU per 100 mL) or Assembly Bill (AB) 411 total coliform standards (1,000 CFU per 100 mL).

For the purposes of this study, plate-based standards for colony-forming units (CFUs) are deemed equivalent to liquid-based results provided in most-probable number (MPN) units.

- 1- As described in the Basin Plan, the geometric mean (GM) shall not be greater than the applicable GM magnitude in any six-week interval, calculated weekly, for *Enterococcus*. Due to the four-week duration of the study, a modified four-week GM for *Enterococcus* was calculated for the purposes of this study.
- 2- Bacteria standards outlined in both the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE), of which the Basin Plan standards were derived from, and AB 411 recommend that the GM be applied to at least five samples in the given time period (e.g., six weeks or 30 days). The GM was calculated regardless of sample size for the purposes of this special study.

3.4.2 Statistical Threshold Value (STV) Results

Calculated STV results for *Enterococcus* are presented in Table 3-4; exceedances are presented in Table 3-8. Calculations were performed according to requirements in the Basin Plan, which state "the statistical threshold value (STV) shall not be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner". The calculated STV for all sampling locations were below Basin Plan standards for *Enterococcus* with the exception of Kellogg Beach, North Kellogg Beach, and OF-2.

Table 3-4. Enterococcus Statistical Threshold Value (STV) Results Summary Table

	Enterococcus STV Calculations						
Sample Location	Number of Samples >110 CFU/100 mL	Total Number of Samples Collected	Percent (%) of Samples that Exceed STV (110 CFU/100 mL)				
A1-1	0	13	0%				
A1-2	0	13	0%				
A1-3	0	12	0%				
Bessemer Street	0	4	0%				
Fuel Pier	0	4	0%				
Guest Dock	0	4	0%				
Kellogg Beach	1	4	25%				
Kona Kai	0	4	0%				
Main Channel-1	0	4	0%				
Main Channel-2	0	4	0%				
North Kellogg Beach	1	4	25%				
OF-1	0	4	0%				
OF-2	5	5	100%				
OF-3	0	4	0%				
REF	0	7	0%				

Notes:

% = percent; > = greater than; A1 = A-1 Anchorage; CFU = colony-forming units; mL = milliliter; MPN = most probable number; OF = outfall; REF = reference; STV = statistical threshold value; WQO = water quality objective Values in **BOLD** indicate an exceedance above the Basin Plan STV WQO for *Enterococcus* (110 CFU/100 mL) Calculations are performed per requirements outlined in the Basin Plan, which state "The statistical threshold value (STV) shall not be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner."

3.5 Outfall Sampling

Discharge was observed flowing from the storm water outfall adjacent to receiving water sampling location OF-2 during nearly all sampling events. Supplemental discharge samples were collected directly from the outfall during all sampling events with the exception of Week 1 and Week 2. Water quality measurements were also taken to ensure that discharge was not tidally influenced. Flow from this outfall was estimated between two to ten gallons per minute (gpm) during all

sampling events on which discharge was observed. *Enterococcus* results from dry weather discharge samples ranged from 4,110 MPN/100 mL during the Safe Harbor event to 41,100 MPN/100 mL during the Weekend 2 sampling event. Total coliforms were reported between 24,200 MPN/100 mL during the Week 4 sampling event and 411,000 MPN/100 mL during the Weekend 2 sampling event. Results are presented in Table 3-5 and Figure 3-4.

During the last sampling event (Week 4), dry weather discharge was also observed from the storm water outfall adjacent to receiving water sampling location OF-1. Water quality measurements and a supplemental discharge sample were collected from this outfall, which was estimated to be flowing at one to two gpm. *Enterococcus* and total coliforms for this sample were reported at 3,870 MPN/100 mL and 435,000 MPN/100 mL, respectively.

Table 3-5. Outfall Dry Weather Flow Single-Sample FIB Results Summary Table

				S	ample Results (MPN/100 m	L)			
Osmanla	5/7/2022		5/10/2022		5/20/2022		5/21/20)22		
Sample Location	Weeker	nd 1	Safe Ha	rbor	Week	3	Weeker	nd 2	Week	4
	Enterococcus	Total Coliforms	Enterococcus	Total Coliforms	Enterococcus	Total Coliforms	Enterococcus	Total Coliforms	Enterococcus	Total Coliforms
OF-1	NC	NC	NC	NC	NC	NC	NC	NC	3,870	435,000
OF-2	6,870	130,000	4,110	48,800	33,600	365,000	41,100	411,000	5,790	24,200

Notes: FIB = fecal indicator bacteria; mL = milliliter; MPN = most probable number; NC = not collected; OF = outfall

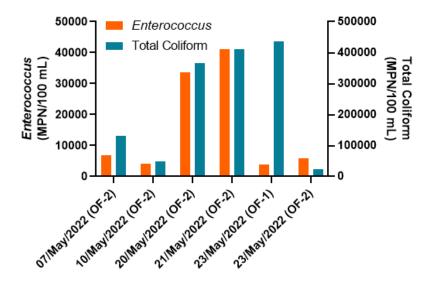


Figure 3-4. Outfall Dry Weather Flow Single-Sample FIB Results Summary

Table 3-6.
AB 411 Single-Sample Maximum (SSM) FIB Exceedances Summary

Date	Sampling Event Type	Sample Location	Result (MPN/100 mL)					
Enterococcus ^a								
5/6/2022	Week 1	OF-2	3,440					
5/13/2022	Week 2	OF-2	1,830					
5/20/2022	Week 3	Kellogg Beach	223					
5/20/2022	Week 3	North Kellogg Beach	226					
5/20/2022	Week 3	OF-2	6,970					
5/21/2022	Weekend 2	OF-2*	19,900					
5/23/2022	Week 4	OF-2	1,290					
	Total Co	liforms ^b						
5/6/2022	Week 1	OF-2	11,200					
5/20/2022	Week 3	OF-2	54,800					
5/21/2022	Weekend 2	OF-2*	58,800					

Notes: AB = Assembly Bill; CFU = colony-forming units; DEHQ= San Diego County Department of Environmental Health and Quality; FIB = fecal indicator bacteria; mL = milliliter; MPN = most probable number; n = number of samples; OF = outfall; SSM = single sample maximum

For the purposes of this study, plate-based standards for colony-forming units (CFUs) are considered equivalent to liquid-based results provided in most-probable number (MPN) units.

- *- Supplemental FIB sample was collected from receiving water site OF-2 due to observed discharge from the outfall adjacent to this site.
- a- Samples exceed the AB 411 SSM standard of 104 CFU/100 mL used by the DEHQ.
- b- Samples exceed the AB 411 SSM standard of 10,000 CFU/100 mL used by the DEHQ.

Table 3-7.
Geometric Mean (GM) FIB Exceedances Summary

Sample Location	Sample Size (n)	Geometric Mean (MPN/100 mL)				
Enterococcus ^a						
OF-2	5	4,077				
Total Coliforms ^b						
OF-2	5	11,154				

Notes: AB = Assembly Bill; CFU = colony-forming units; DEHQ= San Diego County Department of Environmental Health and Quality; FIB = fecal indicator bacteria; GM = geometric mean; mL = milliliter; MPN = most probable number; n = number of samples; OF = outfall; WQO = water quality objective

For the purposes of this study, plate-based standards for colony-forming units (CFUs) are considered equivalent to liquid-based results provided in most-probable number (MPN) units.

- a- Samples exceed the Basin Plan six-week geometric mean standard of 30 CFU/100 mL. Due to the four-week duration of the study, a modified four-week GM was calculated and qualified when compared to the WQO.
- b- Samples exceed the AB 411 30-day GM standard of 1,000 CFU/100 mL used by the DEHQ.

Table 3-8.
Statistical Threshold Value (STV) *Enterococcus* Exceedances Summary

Sample Location	Sample Size (n)	Percent of Samples that Exceed STV (110 CFU/100 mL)
Kellogg Beach	4	25%
North Kellogg Beach	4	25%
OF-2	5	100%

Notes: CFU = colony-forming units; mL = milliliter; MPN = most probable number; n = number of samples; OF = outfall; STV = statistical threshold value

For the purposes of this study, plate-based standards for colony-forming units (CFUs) are considered equivalent to liquid-based results provided in most-probable number (MPN) units.

3.6 QA/QC Results

Laboratory Blanks

Enterococcus and total coliforms were not detected in any laboratory blank samples.

Field Blanks

Results from all field blank samples were below the method detection limit (not-detected, or ND) with the exception of the field blank sample collected during the Safe Harbor event, in which total coliforms were reported at 1,540 MPN/100 mL. *Enterococcus* was not detected in this sample. Follow-up samples collected in response to this finding are discussed in Section 4.6.

Duplicate Samples

Enterococcus results between duplicate samples and primary samples were identical (e.g., zero percent difference) for the first three sampling events. Duplicate *Enterococcus* results for remaining sampling events were reported at or near the detection limit of 10 MPN/100 mL, with an average standard deviation of 5 MPN/100 mL. These small differences in low-level detections are expected, and as such are considered valid and reported without qualification.

The relative percent difference⁹ between duplicate and primary total coliform samples ranged from 0% to 181%. Total coliform results overall had greater variability which may be due to the relative magnitude and scale of reported values (e.g., results ranged from 10 to 435,000 MPN/100 mL). The largest percent difference was observed in samples collected during Week 1, in which the Bessemer Street sample was reported at 10 MPN/100 mL and the duplicate sample was reported at 199 MPN/100 mL. However, these detections are significantly below the AB 411 SSM standard of 10,000 CFU/100 mL, are considered valid, and reported without qualification.

Replicate Samples

In order to evaluate variability of FIB concentrations in the A-1 Anchorage, both spatial replicates (A1-1, A1-2, A1-3) and temporal replicates (0 hour, 1 hour and 2 hours) were collected. Calculated averages and standard deviation (SD) are provided in Table 3-2. The greatest variability was observed during the Safe Harbor event, in which the average SD for all anchorage sites was calculated at 21 MPN/100 mL for *Enterococcus* and 1,655 MPN/100 mL for total coliforms.

⁹ The relative percent difference (RPD) is calculated as: RPD = (|C_{sample} - C_{duplicate}|)/mean)*100 (State Board, 2022).

4.0 DISCUSSION

This section discusses FIB results for samples collected during the SIYB Bacteria Special Study and notable findings.

4.1 Weekly Sampling Events

The exceedances observed in receiving water site OF-2 can largely be attributed to the discharge from the adjacent outfall, as described in Section 4.5.

Elevated concentrations of *Enterococcus* were reported in samples collected from Kellogg Beach and North Kellogg Beach during the Week 3 sampling event. Field staff noted a strong longshore tidal current, a low negative tide (approximately -0.8 ft), and floating and entrained organic debris, including kelp and eelgrass, that was present in the water during sample collection (Figure 3-2). *Enterococcus* has the potential to grow on eelgrass, which may produce a false positive result for fecal pollution (Ferguson et al., 2016). This is also supported by corresponding total coliform results from these samples, which were relatively low and did not exceed regulatory thresholds, further indicating that exceedances were likely driven by presence of eelgrass.

4.2 Weekend Sampling Events

There were 20 vessels observed in the anchorage during Weekend 1 and 15 vessels during Weekend 2 sample collections. There were no exceedances reported during either weekend or weekly events for the A-1 Anchorage indicating that vessel density did not have a significant effect on FIB concentrations compared to regulatory standards. However, some low-level detections of *Enterococcus* and total coliform during weekend sampling events may be indicative of minor contributions of bacteria from anchored vessels compared to ambient conditions (i.e., few to no vessels) as presented in Figures 4-1 and 4-2.

4.3 Safe Harbor Sampling Event

The Safe Harbor warning was in effect from Monday, May 9 to Thursday, May 12 due to a National Oceanic and Atmospheric Administration issued weather advisory. During the sampling event on Tuesday, May 10, 21 vessels were observed at the anchorage. Similar to trends observed during the weekend sampling events, slightly higher concentrations of FIB were detected with the presence of vessels compared to ambient conditions that were sampled during weekly collection events; however, all results remained below regulatory thresholds (Figures 4-1 and 4-2). One sample, the second replicate sample collected at site A1-3, exceeded the AB 411 SSM standard for Enterococcus during this event, at 1,150 MPN/100 mL. This was the highest Enterococcus value reported for this study, and the corresponding total coliform result for this sample was one of the lowest values reported (10 MPN/100 mL). These two results do not align with the range of values observed from the remaining samples collected on this day, in which Enterococcus results ranged from ND to 63 MPN/100 mL and total coliform results ranged from 20 to 5,170 MPN/100 mL. Based on this discrepancy in the data, the laboratory was contacted to determine whether the reported result for sample A1-3-R2 may be a data transposition error. While a transcription error was not identified after reviewing the bench logs, the lab was not able to review the test kits to confirm the reported results. Additionally, the E. coli result (see Section 1.1 detailing E. coli analysis) for this sample was not-detected (ND), serving as an additional line of evidence to indicate a laboratory reporting error. This result was also determined to be a

statistically significant outlier (p less than [<] 0.05) using Grubb's test (Grubbs, 1969). Based on the above validation checks, these data points are qualified as "R" (rejected) and are excluded from the analysis.

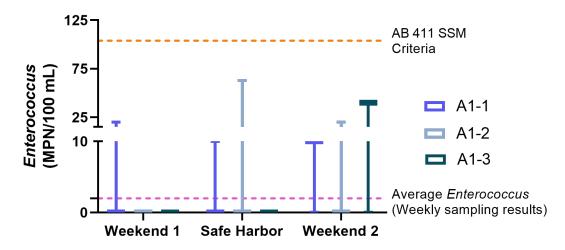


Figure 4-1. A-1 Anchorage Enterococcus Results Summary

Values reported as not-detected (ND) are assumed to be zero for calculation purposes. Boxes represent the median value of three replicate samples, whiskers represent the minimum and maximum results. Dashed lines indicate Assembly Bill (AB) 411 single sample maximum (SSM) criteria for Enterococcus (104 colony-forming units [CFU]/100 mL; in orange) and average Enterococcus results (2 most probable number [MPN]/100 mL, in pink) from all Weekly collection events at all A1-Anchorage sites (n=12).

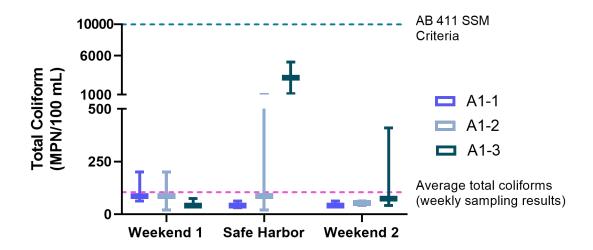


Figure 4-2. A-1 Anchorage Total Coliform Results Summary

Values reported as not-detected (ND) are assumed to be zero for calculation purposes. Boxes represent the median value of three replicate samples, whiskers represent the minimum and maximum results. Dashed lines indicate Assembly Bill (AB) 411 single sample maximum (SSM) criteria for total coliforms (10,000 colony-forming units [CFU]/100 mL; in blue) and average total coliform results (105 most probable number [MPN]/100 mL, in pink) from all Weekly collection events at all A1-Anchorage sites (n=12). All sample results were below the DEHQ total coliform SSM standard.

4.4 Calculated Geometric Mean (GM) and Statistical Threshold Value (STV) Results for All Locations

4.4.1 Geometric Mean (GM) Results

Due to the transient and variable nature of bacteria, a GM is typically calculated in addition to single sample criteria for comparison. The calculated GM for all sampling locations were below Basin Plan and AB 411 GM standards for both *Enterococcus* and total coliform except for site OF-2. This finding indicates that, with one exception in the immediate vicinity of Outfall 2, samples collected from the surface waters of SIYB are below GM regulatory criteria.

4.4.2 Statistical Threshold Value (STV) Results

Similar to the GM, the STV calculation includes the results of multiple samples to increase the statistical power and provide an overall picture of bacterial water quality. The STV was exceeded only at Kellogg Beach, North Kellogg Beach, and OF-2 sites. Of note, the STV was calculated using only four samples collected from Kellogg Beach and North Kellogg Beach, while the regulatory criteria recommend using a minimum of five samples.

4.5 Outfall Sampling

The discharge observed from the outfall directly adjacent to receiving water site OF-2, and elevated FIB results reported in both outfall and receiving water samples, indicates that this outfall is a source of FIB into SIYB. While dry weather flow was observed and elevated FIB levels were reported in OF-1 discharge samples, corresponding receiving water samples did not exceed regulatory standards. The City of San Diego (City) was notified in each instance that dry weather flows were observed. The City immediately sent an inspector to identify possible sources of the dry weather flows.

4.6 QA/QC Results

Laboratory Blanks

All laboratory blank samples met QA/QC criteria.

Field Blanks

In response to the total coliform result detected in the field blank sample collected during the Safe Harbor event, Wood staff collected an additional field blank during the next sampling event (Week 3). For the field blank sample submitted with the Week 3 samples, blank water was obtained from the laboratory and used for this sample. A second field blank sample was also submitted using the water from a single store-bought bottle used for field blanks from the past sampling events, including the Safe Harbor event in which total coliforms were detected. Results from both of these follow-up samples were reported as ND, indicating the detection in the Safe Harbor field blank was not due to contaminated blank water. Concern over possible laboratory contamination was discussed with the laboratory manager, who communicated these findings to lab staff. All subsequent field blank samples were reported as ND for both total coliforms and *Enterococcus*. With the exception of the Week 3 laboratory contamination of the field blank, all results were below the QA/QC criteria of less than the method detection limit.

Duplicate Samples

A default RPD criteria of 0–25% was used to evaluate duplicate precision. The duplicate precision is considered not applicable (NA) if native concentration of either sample is less than the RL. Several samples displayed relatively large percent differences in precision for total coliforms; however, this apparent discrepancy is primarily attributable to higher variability near the detection limit. These results are similar in range to site samples and results are considered representative of natural variability in total coliforms, both in the field and analytically.

Replicate Samples

During the Weekend and Safe Harbor events, temporal and spatial replicates were collected from three site at three times (0, 1, and 2 hours). *Enterococcus* averages between all three events ranged from 2–13 MPN/100 mL and average total coliforms ranged from 90 to 944 MPN/100 mL, with the highest total coliforms measured during the Safe Harbor event. The high standard deviation for total coliforms during this event was driven by site A1-3, which was calculated at 2,020 MPN/100 mL. This is due to the elevated sample results reported at this site (5,170 MPN/100 mL and 1,130 MPN/100 mL) compared to sites A1-1 and A1-2 (average results reported at 45 MPN/100 mL and 372 MPN/100 mL, respectively) and the decrease in sample size, as one of the replicate samples was removed from the analysis (see Section 4.3). However, all values are below applicable regulatory thresholds, and there is good general agreement in both temporal and spatial variability that is indicative of representative FIB levels during anchorage use.

5.0 CONCLUSIONS

Results from this study indicate that concentrations of FIB were below regulatory thresholds in nearly all samples collected from SIYB, with few exceptions. Concluding remarks are presented below based on the study questions outlined in Section 1.0.

- What is the extent and magnitude of ambient dry weather FIB levels within SIYB relative to REC-1 water quality objectives (WQOs)?
 - Over the course of the study, nearly all FIB samples collected in SIYB were below regulatory thresholds, indicating that surface waters can generally support safe water contact recreation and activities. Samples in which FIB were elevated above Basin Plan WQOs were associated with either point-source discharge (e.g., outfalls) or, for a single event, localized to a general area (e.g., Kellogg Beach and North Kellogg Beach).
- Are there concentrations of FIB that exceed REC-1 WQOs associated with active periods of A-1 Anchorage weekend or Safe Harbor use?
 - There were no exceedances of REC-1 WQOs from samples collected during either weekend or Safe Harbor event¹⁰. Slightly higher concentrations of FIB were detected in the A-1 Anchorage during the presence of vessels compared to ambient conditions (i.e., few to no vessels), which may be indicative of minor contributions of FIB from anchored vessels.
- Are there concentrations of FIB that exceed REC-1 WQOs associated with beaches or outfalls?
 - FIB concentrations exceeded REC-1 WQOs at two beach sites and one outfall site during the study. Enterococcus concentrations were elevated in samples collected from Kellogg Beach and North Kellogg Beach during one sampling event (Week 3), while total coliforms remained well-below SSM criteria. However, it is suspected that these exceedances may be a result of excessive floating organic debris (e.g., eelgrass) noted during this sampling event. Exceedances were also reported in all samples collected from receiving water site OF-2, which is adjacent to a storm water outfall. Dry weather flow was observed discharging from this outfall during most weekly sampling events. Samples collected directly from the dry weather flow indicate that this discharge was the source of FIB exceedances at site OF-2 during the study. The OF-2 area of discharge in the vicinity of the outfall is not commonly used for REC-1 use due to poor access and the steep rip rap shoreline.

-

¹⁰ One *Enterococcus* exceedance was reported in sample A1-3-R2 collected during the Safe Harbor event. This result was determined to be a statistical outlier, rejected during validation, and therefore the sample was excluded from analyses.

6.0 REFERENCES

- California Regional Water Quality Control Board, San Diego Region (Regional Board). 1994. Water Quality Control Plan for the San Diego Basin—Region 9 (Basin Plan).
- Ferguson, D.M., Weisberg, S.B., Hagedorn, C., De Leon, K., Mofidi, V., Wolfe, J., Zimmerman, M., and Jay, J.A. 2016. *Enterococcus* growth on eelgrass (Zostera marina); implications for water quality. *FEMS Microbiology Ecology* 92.4: fiw047.
- Grubbs, Frank. 1969. Procedures for Detecting Outlying Observations in Samples, *Technometrics*, 11(1), pp. 1-21.
- Pisciotta, J. M., Rath, D. F., Stanek, P. A., Flanery, D. M., & Harwood, V. J. 2002. Marine bacteria cause false-positive results in the Colilert-18 rapid identification test for Escherichia coli in Florida waters. *Applied and Environmental Microbiology*, 68(2), 539-544.
- State Water Resources Control Board. 2022. Surface Water Ambient Monitoring Program Quality Assurance Project Plan. January 2022.
- United States Environmental Protection Agency (USEPA). 2002. Guidance for Selection of Sampling Design for Environmental Data Collection, for Use in Developing a Quality Assurance Project Plan, EPA QA/G5S. EPA/240/R-02/005.
- Wood Environment and Infrastructure Solutions, Inc. (Wood). 2022. Shelter Island Yacht Basin Bacteria Special Study Final Work Plan and Quality Assurance Project Plan. April 2022.

APPENDIX A FIELD DATA FORMS

FIELD WATER QUALITY DATA FORM

Station Identification:	REFI-MI		
Date: (mm/dd/yyyy)	5/6/22	Time on Station: (hh:mm)	0625
FIB SAMPLE TIME:		Water Depth: _	20.4 m
Tide (ft):	1.0+	Time of Slack High Tide:	13:5%
Weather conditions:	of calm		
Wind (mph)/direction:	Ø	Water Visibility (ft):	2.9m
Surface Water Conditions:	ca/m		
Bird Enumeration:	n =6		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

on no shear, al

Water Quality Measurements

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0628	18.7	34.41	8.09	7.95

QAQC Checklist:
Field data sheet completed, notable observations recorded
☐ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
Samples collected within 25 feet of target location? If not, please describe below.
✓ Samples sealed in secondary container (plastic bag) and immediately placed on ice
Date: 5/6/22 Time: 10:00 Signature: Kathulus

Station Identification:	KK-WI	-	
Date: (mm/dd/yyyy)	5/6/22	Time on Station: (hh:mm) _	0610
FIB SAMPLE TIME:	0610	Water Depth: _	25 m
Tide (ft):	· · · · · · · · · · · · · · · · · · ·	Time of Slack High Tide:	23:53
Weather conditions:	calm, over	east, cleaning	
Wind (mph)/direction:	Ø	_ Water Visibility (ft): _	2.5m + (6.10m)
Surface Water Conditions:	calm		·
Bird Enumeration:	$n=1$, n_0	people	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

none

Time of Measurement	Temperature (°C)	Salinity (ppt)	pН	DO (mg/L)
0615	19.6	24.36	8.05	7.36

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- All bacteria samples collected (125-mL HDPE: Total Coliform and *Enterococcus*)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- □ Samples delivered within holding time requirements

Date:	5/10/22	Time:	10:00	Signature:	RO	teku	Mus
							$\overline{}$

Station Identification:	6D-W1		
Date: (mm/dd/yyyy)	5/6/22	Time on Station: (hh:mm)	0600
FIB SAMPLE TIME:	0600	Water Depth:	6 ne les
Tide (ft):		Time of Slack High Tide:	23:5B
Weather conditions:	calm over	C4.57	
Wind (mph)/direction:	Ø	Water Visibility (ft):	4.1 meters
Surface Water Conditions:	caln		
Bird Enumeration: _	\$ 26m	ils, no people,	11 = 20 boats
discoloration, odors, slid	cks, boat maintenance	nding factors of concern obs e, plankton blooms, recent r rial):	served (e.g., sheens, rain events, presence of movel rollection)

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0605	18.5	34.15	8.02	7.82

 QAQC Checklist: ✓ Field data sheet completed, notable observations recorded ✓ Photos taken ✓ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus) ✓ Samples collected within 25 feet of target location? If not, please describe below. ✓ "Clean Hands" sampling techniques followed ✓ Samples sealed in secondary container (plastic bag) and immediately placed on ice ✓ COCs filled out and cross-checked with sample labels
Samples delivered within holding time requirements
Date: 5/4/22 Time: 10:00 Signature:

Station Identification:	MCI-WI		
Date: (mm/dd/yyyy) __	5/6/22	Time on Station: (hh:mm) _	0625
FIB SAMPLE TIME:	0625	Water Depth: _	5.3m
Tide (ft):	1.0+	Time of Slack High Tide: _	23:58
Weather conditions:	calm , over	cast	
Wind (mph)/direction:	9	Water Visibility (ft): _	2-8 meter
Surface Water Conditions: _	calm		
Bird Enumeration: _	1=8		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

no sheen; surface dobn's or kelp

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0628	18.6	34.47	8.09	8.12

QAQC Checklist:
Field data sheet completed, notable observations recorded
Photos taken
∠ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
Samples collected within 25 feet of target location? If not, please describe below.
Clean Hands" sampling techniques followed
Samples sealed in secondary container (plastic bag) and immediately placed on ice
COCs filled out and cross-checked with sample labels
Samples delivered within holding time requirements
Date: $5/4/22$ Time: $10:\omega$ Signature:
Date: Signature. Signature.

Station Identification:	MCZ-WI		
Date: (mm/dd/yyyy)	5/6/22	Time on Station: (hh:mm)	0695
FIB SAMPLE TIME:	06 45	Water Depth:	5.0m
Tide (ft):	0.9+	Time of Slack High Tide:	23:5B
Weather conditions:	calm		
Wind (mph)/direction:	slight breeze	<pre> //tf Water Visibility (ft):</pre>	2-7n
Surface Water Conditions:	caln, light	ripple	
Bird Enumeration:	N=0 , No p		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

no sarface debis orkelp

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0648	18.8	34.50	8.07	7.91

QAQC	Chec	klist:
-------------	------	--------

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and *Enterococcus*)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/61	12	Time:	10: DU	Signature:	1200	Bru
						// - '	- T

Station Identification:	FP-N1		
Date: (mm/dd/yyyy)	Je/re	Time on Station: (hh:mm) _	0655
FIB SAMPLE TIME:		Water Depth: _	4.5 m
Tide (ft):	0.85	Time of Slack High Tide:	23.58
Weather conditions:	calm, over	eat	·
Wind (mph)/direction:	light breeze	Water Visibility (ft): _	2.3m
Surface Water Conditions:	calm		
Bird Enumeration:	n=0,/ya	pson in lock, 1	bort facing

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

bilge running on boat getting fuel
who books docked @ FP - KB

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
06-18	18.7	34.51	8.02	7.15

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/11/22	Time: / <i>り:0</i> つ	Signature:	Lah Sun
Date	- 00 / -			

Station Identification:	0F-3-W1		
Date: (mm/dd/yyyy) ₋	5/6/22	Time on Station: (hh:mm) _	0700
FIB SAMPLE TIME:	0700	Water Depth: _	1.9 m
	0-80+	Time of Slack High Tide: _	23:5B
Weather conditions:	caln		
Wind (mph)/direction: Surface Water Conditions:		Water Visibility (ft): _	2.4n
		verson on dock	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

no surt debis , no kelp

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0705	18.7	34.50	8.01	7.20

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ✓ COCs filled out and cross-checked with sample labels
- ✓ Samples delivered within holding time requirements

Date:	5/6/22	Time:	10:00	Signature:	Leth	
-	<i>t - 1</i>				1	

Station Identification:	0F2-W1	-	
Date: (mm/dd/yyyy)	5/6	Time on Station: (hh:mm) _	0720
FIB SAMPLE TIME:	0720	Water Depth: _	0.3
Tide (ft):	~0.6 +	Time of Slack High Tide: _	23:-<8
Weather conditions:	calm, ever	east	
		Water Visibility (ft): _	0.3
Surface Water	cala		
Bird Enumeration:	10,20	-a/Kevs	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

flow ~ 7-10 gpm saling 1.49 Contfall 18 phohos above water-line no surface debris -

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0725	18.6	34.39	8.04	7.18

QA	QC	Che	eckl	ist:

- Field data sheet completed, notable observations recorded
- ☑ Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/6	122	Time:	10:	∞	Signature:_	Kar	<u> </u>
			<u></u>		·			

Station Identification:	BSWI + BS-DMI-WI		
Date: (mm/dd/yyyy)	5/6/22 Ti	ime on Station: (hh:mm)0735	
FIB SAMPLE TIME:	07\$10 / 0741 (Slup)	Water Depth:	
Tide (ft):	~0.55+ Time	e of Slack High Tide: 23:58	
Weather conditions:	calm, clearing stigh	1/2	
	0-K/Kt south Water		
Surface Water Conditions:	calm, some small	1 bubbles on surface	
	1=0 , A0 pe 1=/		
discoloration, odors, sli animals, eelgrass, kelp			ce of

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0744	18.5	34.32	8.05	7.24

QAQC	<u>Cr</u>	<u>iec</u>	<u>:kl</u>	<u>ist</u>	<u>:</u>					
							 	. 1	 - 1-	

- Field data sheet completed, notable observations recorded
- All bacteria samples collected (125-mL HDPE: Total Coliform and *Enterococcus*)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: 5[6]22 Time: 10:00 Signar	ture: Kallyn
---------------------------------	--------------

Station Identification:	OF1-W1		
Date: (mm/dd/yyyy)	5/6/22	Time on Station: (hh:mm) _	0750
FIB SAMPLE TIME:	· <u>-</u>	Water Depth: _	0.3
Tide (ft):	vost	Time of Slack High Tide:	13:58
Weather conditions:	calm overca	1)	
Wind (mph)/direction:	ø	Water Visibility (ft): _	71.8 notes
Surface Water Conditions:	ala		
Bird Enumeration:	n=\$, 2	walkers on yath	none on beach

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

no Kele, no the large algac

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0758	18.6	34.46	8.06	7.73

QAQC Checklist: ☐ Field data sheet completed, notable observations recorded							
☐ Photos taken							
All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)							
☑─Samples collected within 25 feet of target location? If not, please describe below.							
∠─ "Clean Hands" sampling techniques followed							
☑ Samples sealed in secondary container (plastic bag) and immediately placed on ice							
Date: 5/4/22 Time: 10:00 Signature:							

Station Identification:	A1-1-N1		
Date: (mm/dd/yyyy)	5/6/22	Time on Station: (hh:mm) _	0800
	/ > 3	Water Depth: _	3.6 m
Tide (ft):	~0.5+	Time of Slack High Tide:	13:5B
Weather conditions:	calm		
Wind (mph)/direction:	ozikt smi	Water Visibility (ft): _	2.Pm
Surface Water Conditions:	cape, no	surf. debris	
Bird Enumeration:	n=\$, n.	prople	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

none

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)	
0802	18.6	34.49	8.01	8,10	

QAQ	C	Cł	nec	kl	ist:

- Field data sheet completed, notable observations recorded
- → Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ☑ COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/6/22	Time:	(0:00	Signature:	Katallin
<i></i>					10

Station Identification:	A1-2-W1		
Date: (mm/dd/yyyy)	5/6/22	Time on Station: (hh:mm)	0805
FIB SAMPLE TIME:	1080	Water Depth:	4.5 m
Tide (ft):	~0.46+	Time of Slack High Tide:	23:59
Weather conditions:	cale overce	st	
Wind (mph)/direction:	1-2kt south	Water Visibility (ft):	2.9m
Surface Water Conditions:	light vigo	les	
Bird Enumeration:	n=g, no p		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

one boat anchored 150' sw during smyling

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0867	18.6	34.50	8.07	8.06

QAQC Checklist:					
☐ Field data sheet completed, notable observations recorded					
All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)					
Samples collected within 25 feet of target location? If not, please describe below.					
Samples sealed in secondary container (plastic bag) and immediately placed on ice					
COCs filled out and cross-checked with sample labels					
-1. 122 10:00 V					
Date: 5/6/6 Time: 10.00 Signature:					

Station Identification:	A1-3-W1		
Date: (mm/dd/yyyy) __	5/6/22	Time on Station: (hh:mm) _	0810
FIB SAMPLE TIME:	-	Water Depth: _	5.02
Tide (ft):	-048+	Time of Slack High Tide:	23:52
Weather conditions:	cale o		
Wind (mph)/direction:	0-2/kt so	Water Visibility (ft):	3.2 m
Surface Water Conditions:	calm, no	debris	
Bird Enumeration:	<u> </u>		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

n=1 andural boat 200 ft sw

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0814	18.7	34.52	8.09	8.05

QAQC Checklist:
 Field data sheet completed, notable observations recorded Photos taken
All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
Samples collected within 25 feet of target location? If not, please describe below.
☐ Samples sealed in secondary container (plastic bag) and immediately placed on ice
 Samples delivered within holding time requirements

Station Identification:	NK -WI		
Date: (mm/dd/yyyy)	5/6/22	Time on Station: (hh:mm) _	0820
FIB SAMPLE TIME:	0820	Water Depth: _	0.6 m
Tide (ft):	0.46+	Time of Slack High Tide: _	23:59
Weather conditions:	cala, over	cast	
Wind (mph)/direction:	0-1K+ (5	wが/Water Visibility (ft): _	
Surface Water Conditions:	calm, lie	just riggle, no de	cons
Bird Enumeration:	•	beach walker	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

I small strond Kely on beach, I walten

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0825	18.6	34.52	8.16	8.17

<u>QAQC</u>	Checklist:	
	Field data sheet completed, notable observations record	beb
	Photos taken	•

- All bacteria samples collected (125-mL HDPE: Total Coliform and *Enterococcus*)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/6/22	Time [.]	10:00	Signature:	Kaloly	
Date				_	/	

Station Identification:	KB-WI		
Date: (mm/dd/yyyy)	5/6/22	Time on Station: (hh:mm) _	0830
FIB SAMPLE TIME:	0800	Water Depth: _	0.6
Tide (ft):	0.5	Time of Slack High Tide:	23:58
Weather conditions:	calm, light	wind of d	only
Wind (mph)/direction: ¿	1-2 Rts south	Water Visibility (ft): _	\mathcal{O}
Surface Water Conditions:	rirples		
Bird Enumeration:	n=1, \$perso	ns/ Hogs on	brach

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

filimentous green algae in nearshore

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0832	18.6	34.44	8,09	8:33

	QA	QC	Ch	eck	list
--	----	----	----	-----	------

- Field data sheet completed, notable observations recorded
- All bacteria samples collected (125-mL HDPE: Total Coliform and *Enterococcus*)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/6/22	_ Time:	10:00	Signature:_	Katapan
-------	--------	---------	-------	-------------	---------

Station Identification:	REF! - WKD		
Date: (mm/dd/yyyy)	5/7/22	Time on Station: (hh:mm) _	0620
FIB SAMPLE TIME:	0625	Water Depth:	18.4
Tide (ft):	1.5+	Time of Slack High Tide:	00:48
Weather conditions:	wird 78K1	(south) over	rast
Wind (mph)/direction:	78KT(s)	Water Visibility (ft):	2.5 m
Surface Water Conditions:	light dop	n. debris	
Bird Enumeration:	n = ps		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

none

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
06.28	19.2	34.26	7.97	8.14

QAQC Checklist:

- ☑ Field data sheet completed, notable observations recorded
- Photos taken
- ☑ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ☑ COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/7/22	Time:	10:30	Signature:_	Kullin	
	- 1 1 1 1 1					

Station Identification:	A1-1-R1-	HKOI	·
Date: (mm/dd/yyyy)	5/7/22	Time on Station: (hh:mm) _	0640
FIB SAMPLE TIME:	0640	Water Depth: _	3.9n
Tide (ft):	1.5+	Time of Slack High Tide: _	00:48
Weather conditions:	overast la	,/	
Wind (mph)/direction:	SKH(sonth)	Water Visibility (ft): _	2.45m
Surface Water Conditions:	light surfa	a rijle	
Bird Enumeration:	1-0	/'	-

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

n=17 versels on anchors no degs observed

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0645	17.1	34.40	8.05	8,16

QA	QC	Che	<u>cklist:</u>

- Field data sheet completed, notable observations recorded
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- □ Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ∠ COCs filled out and cross-checked with sample labels
- □ Samples delivered within holding time requirements

Date:	5/7/22	_Time:	10:30	Signature:_	1/m/2	
						_

Station Identification:	A1-2-12-1	WKDZ	
Date: (mm/dd/yyyy)	-61	Time on Station: (hh:mm) _	06 45
FIB SAMPLE TIME:	0650	Water Depth: _	5.0
Tide (ft):	1.5+	Time of Slack High Tide: _	00:48
Weather conditions:	overcast, e	rol	
Wind (mph)/direction:	5kt(s)	Water Visibility (ft): _	2-9
Surface Water Conditions:	no debris	, light	
Bird Enumeration:	n = 0		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

nonc (n-17 books @ anchi-) no dogs observed

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0651	19.0	34.45	8.05	8.15

- Field data sheet completed, notable observations recorded
- □ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels

Date:	5/7	122	Time:	10:50	Signature:	Valla-
Date	- / /			1	_	

Station Identification: A/-3-RI-WKDI + (BWP)						
Date: (mm/dd/yyyy)	5/7/22	Time on Station: (hh:mm) _	0655			
FIB SAMPLE TIME:	0655/0656	Water Depth: _	5.3			
Tide (ft):	1.4+	Time of Slack High Tide: _	00:48			
Weather conditions:	overcast, co	0/				
Wind (mph)/direction:	3.5 KHB)	Water Visibility (ft): _	2.4			
Surface Water Conditions:	no debris					
Bird Enumeration:	1=0					

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

a:17 boats @ anchor no days observed

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0700	17.2	34.48	8.05	8.02

QAQC Checklist:	Q	ΑQ	C	Ch	ec	kli	ist:
-----------------	---	----	---	----	----	-----	------

- Field data sheet completed, notable observations recorded
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/7/22	Time:	10:30	Signature:	Nuh
					

Station Identification:	A1-1-R2		
Date: (mm/dd/yyyy)	5/7/22	Time on Station: (hh:mm) _	0740
FIB SAMPLE TIME:	0740	Water Depth: _	3.8
Tide (ft):	/-0	Time of Slack High Tide: _	00:48
Weather conditions:	calk overcast		
Wind (mph)/direction:	3k+ (s)	Water Visibility (ft):	3.0
Surface Water Conditions:	light rupples	•	
Bird Enumeration:			

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

none hilt boats, no dogs

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0742	19.0	34.44	8.11	8.13

QAQC Checklist:	
Field data sheet completed, notable observations recorded	. 4
☑ Photos taken	
All bacteria samples collected (125-mL HDPE: Total Coliform and <i>Enterococcus</i>)	
Samples collected within 25 feet of target location? If not, please describe below.	
☑ Samples sealed in secondary container (plastic bag) and immediately placed on ice	
✓ Samples delivered within holding time requirements	
Date: $5/7/22$ Time: 10.30 Signature:	

Station Identification:	A1-2-RZ		
Date: (mm/dd/yyyy)	5/7/22	Time on Station: (hh:mm) _	0745
FIB SAMPLE TIME:	_	Water Depth: _	50
Tide (ft):	/. D	Time of Slack High Tide: _	00:48
Weather conditions:	werrest, c	ala	
Wind (mph)/direction:		Water Visibility (ft): _	2.95
Surface Water Conditions:	calm		
Bird Enumeration:	1=4		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

1=17 boats, 10 dogs

1 Kayaker, 2 persons on deck, one crying babby.

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0749	19.0	34.50	8208	8.14

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- ☑ Photos taken
- ☐ All bacteria samples collected (125-mL HDPE: Total Coliform and *Enterococcus*)
- ☑ Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed

- Samples delivered within holding time requirements

Date [.]	5/7	122	_ Time: <u> /の: </u> 3 ひ	Signature:_	Mills	
						-

Station Identification:	A1-3-KZ	•	
Date: (mm/dd/yyyy)	5/7/22	Time on Station: (hh:mm) _	0755
FIB SAMPLE TIME:	0755	Water Depth: _	5./
Tide (ft):	0.8	Time of Slack High Tide:	00:48
Weather conditions:	calo, ever	cast	
Wind (mph)/direction:	0-1kts (5)	Water Visibility (ft): _	2.3
0	calm, sm	50 /2	
Bird Enumeration:	1=4		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

70 Vessels Vessels

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0757	19.1	34.53	8.08	8.04

QA	QC	Ch	<u>eckli</u>	st:

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/7/22	_ Time:	10.30	Signature:_	Kutu	h
	7 . 7					

Station Identification:	41-1-R3-W	SFD !		
Date: (mm/dd/yyyy)	5/9/22	Time on Station: (hh:mm)	0740	
FIB SAMPLE TIME:	0740	Water Depth:	3.7	
Tide (ft):	0.64	Time of Slack High Tide:	00:49	
Weather conditions:	overcast,	_		
Wind (mph)/direction:	7.5 (5)	Water Visibility (ft):	2.4	
Surface Water Conditions:	is debris,	light wind	·	
Bird Enumeration:	11=8			

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

1220 60ats, 1=4 people topside, 2 padde boud @ bousener St.

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0745	1910	34.46	8.14	8.18

QAQC Checklist:
Field data sheet completed, notable observations recorded
Photos taken
✓ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
Samples collected within 25 feet of target location? If not, please describe below.
Clean Hands" sampling techniques followed
Samples sealed in secondary container (plastic bag) and immediately placed on ice
COCs filled out and cross-checked with sample labels
Samples delivered within holding time requirements
1-12-122 10:20 21 1/1/1
Date: $5/7/22$ Time: 10.30 Signature:

Station Identification:	A1-2-R3-U	MCDI	
Date: (mm/dd/yyyy)	5/7/22	Time on Station: (hh:mm)	0850
FIB SAMPLE TIME:	0850	Water Depth:	4.50
Tide (ft):	0.57	Time of Slack High Tide:	00:4%
Weather conditions:	overcast,	light Breeze	70
Wind (mph)/direction:	7/1/5)	Water Visibility (ft):	2.8m
Surface Water Conditions:	light right	no debris.	
Bird Enumeration:	n=0		-

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

no topside activity noted

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0852	19.0	34.51	8.12	8.22

QA	QC	Che	eck	<u>ist:</u>

- Field data sheet completed, notable observations recorded
- ☑ Photos taken
- ∠ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- ✓ Samples delivered within holding time requirements

Date:	5/7/22	Time:	10:30	Signature:	1/n	M
Date	7/1/	' ' ' ' ' ' '				

Station Identification:	A1-3-R3-L	1/20-1	
Date: (mm/dd/yyyy)	5/7/22	Time on Station: (hh:mm)	0855
FIB SAMPLE TIME:		Water Depth: _	4.9~
Tide (ft):	0.5+	Time of Slack High Tide: _	00:48
Weather conditions:	cale, over	east	
Wind (mph)/direction:	4/K+ (s)	Water Visibility (ft): _	3.3
Surface Water Conditions:	no debris u	isible , light w	naf
Bird Enumeration: _			,

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

3 yalle board, I knyck no dogs

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0858	17.2	34.54	8.11	8.06

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- ✓ Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/7/22	Time:	10:30	Signature:_	flush	

Station Identification:	OF2-DW-1		
Date: (mm/dd/yyyy)	5/7/22	Time on Station: (hh:mm)	0795
FIB SAMPLE TIME:		Water Depth:	0.3
Tide (ft):	1-1+	Time of Slack High Tide:	00:48
Weather conditions:	overcast con	/	, -
Wind (mph)/direction:		Water Visibility (ft):	>2/H
Surface Water Conditions:			,
Bird Enumeration:	1=0		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

dry weather flow ~ Zgal/min

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0715 (direct)	17.7	3.28	8.48	9.04
0725 [RW]	19 1	22 EN	Ø 42	74T

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/7/22	Time:	10:50	Signature:_	Mah	
	1 1					

Station Identification:	REFISA		
Date: (mm/dd/yyyy)	5/11/22	Time on Station: (hh:mm)	0755
FIB SAMPLE TIME:	2	Water Depth:	01.3
Tide (ft):	~30+	Time of Slack High Tide:	0518
Weather conditions:	caln, swnny	162	
Wind (mph)/direction:	9	Water Visibility (ft):	2-3
Surface Water Conditions:	ca/m		
Bird Enumeration:	1=6		·
discoloration, odors, sl	g any potential confounding t licks, boat maintenance, plar o wrack, floatable material):	nkton blooms, recent	rain events, presence of
1. beat.	no surface	lebris	1621 600/5 C
			W. C. T.

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0757	18.5	34.20	8.06	7.83

<u>t:</u>
a sheet completed, notable observations recorded
ken
ia samples collected (125-mL HDPE: Total Coliform and <i>Enterococcus</i>)
collected within 25 feet of target location? If not, please describe below.
sealed in secondary container (plastic bag) and immediately placed on ice
ed out and cross-checked with sample labels
delivered within holding time requirements
0/22 Time: 12.30 Signature:
ands" sampling techniques followed sealed in secondary container (plastic bag) and immediately placed on ice ed out and cross-checked with sample labels

Station Identification:	A1-1-R1-SH	4	
Date: (mm/dd/yyyy)	5/0/12	Time on Station: (hh:mm)	08/3
FIB SAMPLE TIME:	0815	Water Depth:	9.3 m
Tide (ft):	+3.0	Time of Slack High Tide:	05:18
Weather conditions:	calm sunne	1	
Wind (mph)/direction:		Water Visibility (ft):	2.3 m
Surface Water Conditions:	calm, fla	t	
Bird Enumeration:	1=6 / /	person Apsile	p-dogs
Other Notes: including discoloration, odors, sli	g any potential confound icks, boat maintenance, wrack, floatable materia	ling factors of concern obs plankton blooms, recent r al): Lose Shan	served (e.g., sheens, ain events, presence of
	1/2	21 boots Can	clor

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0816	19.2	34.49	8.11	7.85

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and *Enterococcus*)
- Samples collected within 25 feet of target location? If not, please describe below.
- ☑ Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ☑ COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/10	122	Time:	12:30	Signature:	Musp.	
D u.c					· · · · · · · · · · · · · · · · · · ·		

Station Identification:	91-2-R1-S4		
Date: (mm/dd/yyyy)	5/10/22	Time on Station: (hh:mm) _	0820
FIB SAMPLE TIME:	0820	Water Depth: _	5.0
Tide (ft):	~2.9+	Time of Slack High Tide: _	05/8
Weather conditions:	surry, cala		
Wind (mph)/direction:	S	Water Visibility (ft): _	2.6 n
Surface Water Conditions:	calen		
Bird Enumeration:	11:0 , 1:3	seeps topside	, 1= & dog s
	NI		/

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

nº 1 pald/eboarder nº21 boats @ anchor

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0821	19.2	34.54	8.11	7.90

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: $\frac{5/10/22}{100}$ Time: $\frac{12:30}{100}$ Signature:

Station Identification:	A1-3-R1-	A1-3-R1-SH-D9	(9)
Date: . (mm/dd/yyyy) _	5/10/	Time on Station: (hh:mm) _	0827
FIB SAMPLE TIME:	0830/083	Water Depth:	5.5~
Tide (ft):	-2.8	Time of Slack High	0518
Weather conditions:	sommy, co	a/m	
Wind (mph)/direction:	0-<1kt	Water Visibility (ft):	25m
Surface Water Conditions: _	cale		
Bird Enumeration: _	1=6	no degs	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

no surface debris 1=21 bonts @ anda

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0832	19,4	34.56	8.11	7.8

QAQC Checklist:
Field data sheet completed, notable observations recorded
☑ Photos taken
☑ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
Samples collected within 25 feet of target location? If not, please describe below.
(Clean Hands' sampling techniques followed
Samples sealed in secondary container (plastic bag) and immediately placed on ice
COCs filled out and cross-checked with sample labels
Samples delivered within holding time requirements
Eliala- 12-2- 11 /h
Date: $\frac{5}{10}$ $\frac{10}{22}$ Time: $\frac{12:30}{20}$ Signature:

Station Identification:	A/-/-R2-SH		
Date: (mm/dd/yyyy)	5/10/22	Time on Station: (hh:mm)	0915
FIB SAMPLE TIME:	0915	Water Depth:	4.0 m
Tide (ft):	1.8	Time of Slack High Tide:	0518
Weather conditions:	surmy cala		
Wind (mph)/direction:	9	Water Visibility (ft):	2.3n
Surface Water Conditions:	light &	•	
Bird Enumeration:	n=o birds	2 dogs, n = 5 per	yle on
	. /		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

10 su-lace debris.

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0722	19,4	34.60	8./8	7.90

QAQC Checklist:
Field data sheet completed, notable observations recorded
☑ Photos taken
All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
Samples collected within 25 feet of target location? If not, please describe below.
☑ "Clean Hands" sampling techniques followed
Samples sealed in secondary container (plastic bag) and immediately placed on ice
COCs filled out and cross-checked with sample labels
Samples delivered within holding time requirements
y campios delivered within the angle and tequipment of
Date: 5/10/22 Time: /2:30 Signature:

A1-2-RZ-SH		
5/10/22	Time on Station: (hh:mm) _	0925
0125	Water Depth: _	4.8
18.84	Time of Slack High Tide: _	0578
sunny, cala		
1-2 KAS (NW)	Water Visibility (ft): _	2.5
light liverage	some bull	les
	/	
	5/10/22 0725 18.84 Sunny, calm 1-2 KAS (NW) /ight breeze	Time on Station: (hh:mm) 0725 Water Depth: Time of Slack High Tide:

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

Ter smill bubbler on surface

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
012-6	19. 4	34.59	8.13	7.92

QA	QC	Che	ckl	ist:
----	----	-----	-----	------

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and *Enterococcus*)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ✓ COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/10/22	Time:	/2:3D	Signature:	Mulh	

Station Identification:	A1-3-R2-54			
Date: (mm/dd/yyyy)	5/10/22	Time on Station: (hh:mm)	0730	
FIB SAMPLE TIME:	0930	Water Depth:	2.8m 5.3 m	
Tide (ft):	1026+1.8	Time of Slack High Tide:	0518	
Weather conditions:	sunny, /1929	f Everge		
Wind (mph)/direction:	2-42/2)	Water Visibility (ft):	2.8	
Surface Water Conditions:	light texture	z, n. visible	debris.	
Bird Enumeration:	1=6, 1 juddle	board, n=		n/e

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

1 diver C SOYC C ont doch I boat clean, y topside styds north

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0935	17.4	34.61	8.12	7.86

QAQC Checklist:
Field data sheet completed, notable observations recorded
Photos taken
☑ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
Samples collected within 25 feet of target location? If not, please describe below.
🗂 "Clean Hands" sampling techniques followed
Samples sealed in secondary container (plastic bag) and immediately placed on ice
☑ COCs filled out and cross-checked with sample labels
☑ Samples delivered within holding time requirements

Station Identification:	0F2-DW-2	
Date: (mm/dd/yyyy)	5/10/27 Time on Station (hh:mm	6011
FIB SAMPLE TIME:		= # 0.3 m
Tide (ft):	Time of Slack High	712-112
Weather conditions:	sanny, caln + light 6,	reeze
Wind (mph)/direction:	1-2 Kts W/WW Water Visibility (ft)	" NIB
Surface Water Conditions:	mostly calm	
Bird Enumeration:	120 Sperple + 3 dogs (1	n bessence beach)

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

flie NZgpm

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0545 (Spl)	17.3	0.68	8.81	9.47
0950 (RM)	19.4	94.44	8.05	6.87

QAQC Checklist:
Field data sheet completed, notable observations recorded
All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
Samples collected within 25 feet of target location? If not, please describe below.
"Clean Hands" sampling techniques followed
 Samples sealed in secondary container (plastic bag) and immediately placed on ice
COCs filled out and cross-checked with sample labels
Date: 5/19/22 Time: 12:30 Signature:

Station Identification:	A1-1-R3-5	TH .	
Date: (mm/dd/yyyy)	5/10/22	Time on Station: (hh:mm) _	ØB/2_
FIB SAMPLE TIME:	10/5	Water Depth: _	3.6 defan
Tide (ft):	1.2+	Time of Slack High Tide:	05/8
Weather conditions:	sunny, light	1 breeze	
Wind (mph)/direction:	2-4 w/nw	Water Visibility (ft): _	2.7
Surface Water Conditions:	light right	es, nove. o	le 6n s
Bird Enumeration:	n=d, $n=0$		eople

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

no surface debris

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
1017	19.7	34.62	8.14	7.7

QAQC Checklist:
Field data sheet completed, notable observations recorded
Photos taken
☐ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
✓ Samples collected within 25 feet of target location? If not, please describe below.
Samples sealed in secondary container (plastic bag) and immediately placed on ice
COCs filled out and cross-checked with sample labels
Samples delivered within holding time requirements
15/n/22 12.22 (1/1)

Station Identification:	A1-2-R3-SH		
Date: (mm/dd/yyyy)	5/10/20	Time on Station: (hh:mm)	1020
FIB SAMPLE TIME:		Water Depth: _	4.6n
Tide (ft):	~/./+	Time of Slack High Tide:	0578
Weather conditions:	sonny / / jet	breeze	
Wind (mph)/direction:	2-3 K+ N/NW	Water Visibility (ft):	2.5m
Surface Water Conditions:	light toture		
Bird Enumeration:	= \$		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

a few surface bubbles present

Time of Measurement	Temperature (°C)	Salinity (ppt)	pН	DO (mg/L)
1024	19.6	34.63	8.12	7.91

QAQC Checklist:
Field data sheet completed, notable observations recorded
✓ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
Samples collected within 25 feet of target location? If not, please describe below.
✓ Samples sealed in secondary container (plastic bag) and immediately placed on ice
COCs filled out and cross-checked with sample labels
✓ Samples delivered within holding time requirements
Date: $5/0/22$ Time: $/2:30$ Signature:

Station Identification:	A1-3-R3-SH		
Date: (mm/dd/yyyy)	05/10/2022	Time on Station: (hh:mm)	10:30
FIB SAMPLE TIME:	10:30	Water Depth:	5.0 m
Tide (ft):	+ 1.D	Time of Slack High Tide:	05:18 AM
Weather conditions:	Sunny, light	breeze	
Wind (mph)/direction:		Water Visibility (ft):	2.9
Surface Water Conditions:		•	
Bird Enumeration:	Ø		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

2 people topside, 2 dogs on ressels w/in anchorage

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
10:35	19.6	34.64	8.12	7.83

Q	^	0	C	h۵	رام	LI	ie	۴.
w	46	20	U	IIC	u	NI	13	L.

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/10/22	Time: /2:30	Signature:	Mah	

Station Identification:	REF-1-WZ		
Date: (mm/dd/yyyy)	5/13/22	Time on Station: (hh:mm)	0750
FIB SAMPLE TIME:	0750	Water Depth:	20.9
Tide (ft):	4.6+	Time of Slack High Tide:	05/8 0802
Weather conditions:	sunny, aln		
Wind (mph)/direction:	cam 2/1ct	Water Visibility (ft):	3.7m
Surface Water Conditions:	caln		
Bird Enumeration:	n=0		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

no significant surface debuis

Water Quality Measurem	ents: rental	meter &		
Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
075	16.2	33.26	7.89	6.22

- Field data sheet completed, notable observations recorded
- ◆Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- ✓ Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ∠COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5	13	122	Time:	12:30	Signature:	Mar	he
_	- 1				-			N. A.

Station Identification:	A1-1-WZ		
Date: (mm/dd/yyyy)	5/13/22	Time on Station: (hh:mm)	0815
FIB SAMPLE TIME:		Water Depth:	4.8 m
Tide (ft):	44.6	Time of Slack High Tide:	1802
Weather conditions:	cale sing		
Wind (mph)/direction:	<u></u>	Water Visibility (ft):	2.7m
Surface Water Conditions:	calen		
Bird Enumeration:	n=0 [n=/dog	on besseres bea	el]
			\sim

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

3 parone publichoards -> SWYC

n = 3 onchroad books

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
081	17.7	33.66	7.98	6.50

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Ctean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/13	/22	Time:	12:30	Signature:	11	Ma
Dato							

Station Identification:	A1-2-WZ		
Date: (mm/dd/yyyy)	5/13/22	Time on Station: (hh:mm)	0824
FIB SAMPLE TIME:	0825	Water Depth:	5.5 A
Tide (ft):	4.5+	Time of Slack High Tide:	0802
Weather conditions:	sunny, calm	~	
Wind (mph)/direction:	_L/kt/east)	Water Visibility (ft):	282
Surface Water Conditions:	(-		•
Bird Enumeration:	120, odags		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

1=3 60 ats Combar, 3 prone paddlebourds (standap 4

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0827	17.7	33.69	8.01	6.58

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/13/22	Time:	12:30	Signature:	Muh	
	' /			4		

Station Identification:	A1-3-WZ		
Date: (mm/dd/yyyy)	5/13/22	Time on Station: (hh:mm)	8830
FIB SAMPLE TIME:	6830	Water Depth:	5.9
Tide (ft):	~ 4.5 +	Time of Slack High Tide:	0802
Weather conditions:	suny, al		
Wind (mph)/direction:	~/ (e)	Water Visibility (ft):	2-6
Surface Water Conditions:	_ calm _ li	ght surface a	lebres (drust)
Bird Enumeration:	n=d , o=dog		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

2 pagle on deck 1 padle board 1=3 book candon

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0834	17.8	33.73	8.02	6-74

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
 - "Clean Hands" sampling techniques followed
- ,8amples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/13/	22	Time: /	12:30	Signature:	Mull-	
	. 1934 - 1						

Station Identification:	OF-1-W2		
Date: (mm/dd/yyyy)	5/13/22	Time on Station: (hh:mm) _	0837
FIB SAMPLE TIME:		Water Depth: _	0.3
Tide (ft):	4.4	Time of Slack High Tide: _	0802
Weather conditions:	calm, sunn	1	
Wind (mph)/direction:	/ <i>O</i>	Water Visibility (ft): _	0.3
Surface Water Conditions:	calm, dus	t moderate on se	
Bird Enumeration:	,		,

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

125 people on path

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0849	18.0	33.73	8,12	6.42

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/13/22	Time: 12:30	Signature:	Mel
Date	7/17/00			

Station Identification:	BS-WZ		
Date: (mm/dd/yyyy)	5/13/22	Time on Station: (hh:mm)	0848
FIB SAMPLE TIME:		Water Depth:	0. (2A)
Tide (ft):	4.31	Time of Slack High Tide:	0802
Weather conditions:	Calm, sun	y	
Wind (mph)/direction:	none	Water Visibility (ft):	>030.6
Surface Water Conditions:	light -, R	noderate surface	
Bird Enumeration:	1		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

1:4 people on path, none on beech

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0853	18./	23.76	8,63	6.05

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/13/	122	Time:	12:30	Signature:_	Luff	
	7 /						

Station Identification:	0-2-42	<u>.</u>	
Date: (mm/dd/yyyy)	5/13/22	Time on Station: (hh:mm)	0908
FIB SAMPLE TIME:	0900	Water Depth:	0.3 /.0
Tide (ft):	4.2	Time of Slack High Tide:	0802
Weather conditions:	suny, ca	ln	
Wind (mph)/direction:	Ø	Water Visibility (ft):	>/.0
Surface Water Conditions:	calon	some sarface	dust/debus/poller
Bird Enumeration:	1= \$, 1=		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

nz 6 people on poth

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0902	17.8	32.76	8.02	6.15

- Field data sheet completed, notable observations recorded
- →Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5	13	122	Time:	12:30	Signature:	Shape
	. 1	- 1					

Station Identification:	0F3-WZ		
Date: (mm/dd/yyyy)	5/13/22	Time on Station: (hh:mm)	0915
FIB SAMPLE TIME:	0915	Water Depth: _	3.0
Tide (ft):	4-1+	Time of Slack High Tide:	0802
Weather conditions:	cah, sunn	4	
Wind (mph)/direction:	9-21	Water Visibility (ft):	2-1
Surface Water Conditions:	calm, mod	derate sarfac	e Alm
Bird Enumeration:	/		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

parked & ontside dock , 12/yerson on dock

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0917	(811	33.88	8.01	6.5.49

QAQC Checklist

- Field data sheet completed, notable observations recorded
- ∠Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: 5/13/22 Time: /2:30 Signature:

Station Identification:	1=p-W2		
Date: (mm/dd/yyyy)	5/13/22	Time on Station: (hh:mm)	0925
FIB SAMPLE TIME:	0825	Water Depth:	5,4
Tide (ft):	~4.67	Time of Slack High Tide:	0802
Weather conditions:	sunuy, cul		
Wind (mph)/direction:	/kt (east) Water Visibility (ft):	2.5
Surface Water Conditions:	_ calm /19	ht surface shee	in
Bird Enumeration:	1=6		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

Tresple, / boat fielthy

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0930	18.1	33.86	7.98	5.67

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- Photos taken
- Atl bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: 5/13/22 Time: /2:30 Signature:

Station Identification:	MC2-WZ		
Date: (mm/dd/yyyy)	5/18/3/22	Time on Station: (hh:mm) _	0835
FIB SAMPLE TIME:	0935	Water Depth: _	5-7m
Tide (ft):	~4.0+	Time of Slack High Tide: _	0802
Weather conditions:	sunny, calm		
Wind (mph)/direction:	ν	Water Visibility (ft): _	2.8m
Surface Water Conditions:	caln,	, · , · .	
Bird Enumeration:	135		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

no surface debris, / person on padelle board

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0938	18.1	33.91	8.06	6.41

	QA	QC	Che	ckl	ist
--	----	----	-----	-----	-----

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: 5/13/22 Time: 12:30 Signature:

Jef.

Station Identification:	MC1-W2		
Date: (mm/dd/yyyy)	5/13/22	Time on Station: (hh:mm)	0945
FIB SAMPLE TIME:	0945	Water Depth:	6./m
Tide (ft):	~4.0+	Time of Slack High Tide:	0802
Weather conditions:	cap, sunny		
Wind (mph)/direction:	~/kt	Water Visibility (ft):	2.9n
Surface Water Conditions:	calm		
Bird Enumeration:	11=6		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

2 paldle bourders, 2 vessels underway

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0947	18.1	33.86	8,06	7.25

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: $\frac{5/13/22}{100}$ Time: $\frac{12:30}{100}$ Signature:

Station Identification:	NK-WZ	·	
Date: (mm/dd/yyyy)	5/3/22	Time on Station: (hh:mm)	0955
FIB SAMPLE TIME:	·	Water Depth:	0./m
Tide (ft):	-3.9 t	Time of Slack High Tide:	0802
Weather conditions:	sunny colon		
Wind (mph)/direction:	_ 1/kf	Water Visibility (ft):	> 0./m
Surface Water Conditions:	colon, some	6nbbles	
Bird Enumeration:	,		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

ness people on teach (I fishermen @ sample point / dog

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0958	18.5	33.86	8.04	7.05

- Field data sheet completed, notable observations recorded
- →Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Ctean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ∠COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/13/22	Time: 12:30	Signature:	Malle	
	1.2/			10/	_

Station Identification:	KB-WZ		
Date: (mm/dd/yyyy)	5/13/22	Time on Station: (hh:mm)	1000
FIB SAMPLE TIME:	(068	Water Depth:	0.2
Tide (ft):	3.9+	Time of Slack High Tide:	0802
Weather conditions:	sunny, cal	In	
Wind (mph)/direction:	•	Water Visibility (ft):	< 0.2m
Surface Water		minir debris,	6 ublles
Bird Enumeration:	1=0 /	dos	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

n=13 jenple, 1 dog

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
1004	18.8	33.92	8.06	7.10

QA	C	Che	ckl	ist:
----	---	-----	-----	------

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- Att bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: $\frac{5/13/22}{13}$ Time: $\frac{12:30}{13}$ Signature:

Station Identification:	GD-WZ			
Date: (mm/dd/yyyy)	5/13/22	Time on S (hl	tation: h:mm) <i></i>	
FIB SAMPLE TIME:	18/0	Water I	Depth: 6-8	m
Tide (ft): ~	3.9 t	Time of Slack	K High Tide:	302
Weather conditions:	~ -/			
Wind (mph)/direction:	B	Water Visibili	ty (ft): 3-7	~
Surface Water Conditions:	calon /19	Water Visibili	e sheen	dust
Bird Enumeration:	126			
Other Notes: including an discoloration, odors, slicks animals, eelgrass, kelp with the second secon	s, boat maintenance,	plankton blooms, r	ecent rain events	s, presence of
Water Quality Measurem	nents	drifted At	up entire	pened
Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
1012	17.8	33.88	8.04	6.71

QA	QC	Che	ckli	ist:

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/13	122	Time:	12:30	_ Signature:/	Man
	1 /	·				

Station Identification:	KK-WZ +KK	-WZ-DUP	
Date: (mm/dd/yyyy)	5/13/22	Time on Station: (hh:mm)	10/6
FIB SAMPLE TIME:	1017/1018	Water Depth:	0.5 n
Tide (ft):	3.8+	Time of Slack High Tide:	<i>6</i> 802
Weather conditions:	swany, of.	La Creeze	
Wind (mph)/direction: (~/K/(W)	Water Visibility (ft):	< 0.52
Surface Water Conditions:	coln, 10	su-fue debu	•
Bird Enumeration:	1=0		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

person on beach

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
1020	18.3	33.86	8,03	error (neg)

QAQC	Che	ckliet:
WAW	CITE	CKIISt.

- Field data sheet completed, notable observations recorded
- →Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

5/13/22 Time: /230 Signature:_

Station Identification:	REF-1-W3		
Date: (mm/dd/yyyy)	5/20/22	Time on Station: (hh:mm) _	0550
FIB SAMPLE TIME:	0555	Water Depth: _	20.0
Tide (ft):	0.2+	Time of Slack High Tide: _	00:14
Weather conditions:	breezy, over	east light du	336
Wind (mph)/direction:	south 12-18	Water Visibility (ft):	3.42
Surface Water Conditions:	light-rod	dop it w	
Bird Enumeration:	1-0, 0 pe	sple, birds, dy	2

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

some reason bubbles

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0600	1515	33.51	7.85	7.68

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Data:	5/20/22	Time [.]	1100	Signature:	
Date	3/0/00	' ' '' '' '' '	0100		
	1 1			·//	
				/	

Station Identification:	GD-W3		
Date: (mm/dd/yyyy)	5/20/r	Time on Station: (hh:mm)	0604
FIB SAMPLE TIME:	0605	Water Depth:	6.0 m
Tide (ft):	0.1	Time of Slack High Tide:	00:1 Y
Weather conditions:	overcast		/
Wind (mph)/direction:	(S)2-3k75	Water Visibility (ft):	3./
Surface Water Conditions:	no debris	, light wind	
Bird Enumeration:	1=2 , no p	ecqs, po dons	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

~ 20 vessel docked

Time of Measurement	ime of Measurement Temperature (°C)		рН	DO (mg/L)
0610	1800	33.64	7.91	9.81

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/20/22	Time:/	100	Signature:	Uh	
	- 	·.				

Station Identification:	KK-W3		
Date: (mm/dd/yyyy)	5/20/22	Time on Station: (hh:mm)	06/3
FIB SAMPLE TIME:		Water Depth:	0.3n
Tide (ft):	0.0	Time of Slack High Tide:	100:14
Weather conditions:	Greenz, over	east	
	south 23 ktse		> 0.3~
Surface Water	Light surface		•
	1=0, 10 pesple/		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

sonc

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0620	13.9	33.62	7.74	6.97

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ✓COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/20/12	Time:	1100	Signature:	
Date	2/0/0	<u> </u>			

Station Identification:	MC-1-43	>	
Date: (mm/dd/yyyy)	5/20/22	Time on Station: (hh:mm)	0630
FIB SAMPLE TIME:	0638	Water Depth:	5,1
Tide (ft):		Time of Slack High Tide:	00:14
Weather conditions:	overcast 6	regy , light du	336
Wind (mph)/direction:	3-8 KB (J)	Water Visibility (ft):	3.4
Surface Water	riggles, 1.		
		ceoy (c/dogs / 6	houts

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

no sawface debors, no borts

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0632	18.2	33.72	7.97	8524

QAQC Checklist	t:
-----------------------	----

- Field data sheet completed, notable observations recorded
- → Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/20	/22	Time:	11:00	Signature:	1	In Man	
Date	100	12-	''''''		0.9	-//-		
	1 /				•			
						//		
							•	

Station Identification:	MC-2-W3		
Date: (mm/dd/yyyy)	5/20/22	Time on Station: (hh:mm)	0638
FIB SAMPLE TIME:	0640	Water Depth: _	4.7
Tide (ft):	-0,3	Time of Slack High Tide: _	00:14
Weather conditions:	overcast,	Grey	
Wind (mph)/direction:	5-7-6+(5)	Water Visibility (ft): _	J. Y
Surface Water Conditions:	no debns	light chop	
Bird Enumeration:	1-0 10-	people, dog, 6	outs

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

rone

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0692	18.3	33.74	7.99	8.30

- Field data sheet completed, notable observations recorded
- ∠Photos taken
- All-bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Ctean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/20/22	Time: // d	いう Signature:	Shah
Date			• • • • • • • • • • • • • • • • • • • •	

Station Identification:	1-P-1-W3				
Date: (mm/dd/yyyy)	5/20/22	Time on Station: (hh:mm)	0.634 0644		
FIB SAMPLE TIME:	0645	Water Depth:	4.2		
Tide (ft):	-0.4	Time of Slack High Tide:	0214		
Weather conditions:	cloudy ove.	rast brevy			
Wind (mph)/direction:	ν.	Water Visibility (ft):	2.9		
Surface Water Conditions:	1 cg/t chap	- surface			
	1=1 nallard				
Other Notes: including any potential confounding factors of concern observed (e.g., sheens,					

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

Surface debris wind captured from surface, the

5 vessels docked @ FP

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0550	18.3	33.73	7.97	8.00

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/20	1/22	Time:_	1100	_ Signature:	/lapon	
_		l		•			

TILLD WATER QUALITY DATA FORM						
Station Identification:	0F3-W3/0F	-3-W3-DUP				
Date: (mm/dd/yyyy)	5/20/22	Time on Station: (hh:mm) _	0655			
FIB SAMPLE TIME:	0655 /0700	Water Depth: _	16 n			
Tide (ft):	-0.5	Time of Slack High Tide: _	D:14			
Weather conditions:	overcust		· .			
Wind (mph)/direction:	1-2KF (S)	Water Visibility (ft): _	2-42/-6 m			
Surface Water Conditions:	light breeze	, 10/very 1. The				
Bird Enumeration:	1 =0 , 1 /co	ole, dogs				

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

0-minor surface debois

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0700	18.5	32.75	7-17	7.93

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- ✓All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/20/22	Time:	//00	Signature:	Latella
		· ·	F		

Station Identification:	0F-2-W3 +	OF DW-360	720
Date: (mm/dd/yyyy)	5/2	Time on Station: (hh:mm) <u>/</u>	715
FIB SAMPLE TIME:	07/5/0720	Water Depth:	0.3
Tide (ft):	-0.7	Time of Slack High Tide:	DD:14
Weather conditions:	chuly forever	+ breezy	<u>'</u>
Wind (mph)/direction:	<i>V</i> , , ,	Water Visibility (ft):	70.3
Surface Water Conditions:	bulbles		
Bird Enumeration:	n=1 (heron)	person, /do	9

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

O-light debris or surface sheen

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0730	1810	31.67	793	7.57

- Field data sheet completed, notable observations recorded
- →Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ∠COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

_

Station Identification:	BJ-W7		
Date: (mm/dd/yyyy) ₋	5/20/22	Time on Station: (hh:mm)	0740.
FIB SAMPLE TIME:	0746	Water Depth:	1.0 m
Tide (ft):	-0,8	Time of Slack High Tide:	00:14
Weather conditions:			
Wind (mph)/direction:	78K+6)	Water Visibility (ft):	>1. Dr
Surface Water Conditions:	light ch	Óφ	d.
Bird Enumeration:	100 Z4	ocyle, I dis	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

Some beach form

Time of Measurement	Temperature (°C)	Salinity (ppt)	pH	DO (mg/L)
0745	18.1	33.66	7.98	8.16

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/20/22	Time:_ <i>// い</i> つ	Signature:	
	1 /			

Station Identification:	OF1-1-W3		
Date: (mm/dd/yyyy)	5/20/22	Time on Station: (hh:mm) _	0750
FIB SAMPLE TIME:	0750	Water Depth: _	0.3n
Tide (ft):	-0.9	Time of Slack High Tide:	00:14
Weather conditions:	cloudy		
Wind (mph)/direction:	5-7 Kt(s)	Water Visibility (ft):	> 0.3m
Surface Water Conditions:	light chop,	bulles	
	n=/, n=0;		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

form e nation edge

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0755	18.0	33.7	7.97	7.82

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/20	/22	Time:	1100	Signature:	1 h	
-	()						•

Station Identification:	A1-1-W3		
Date: (mm/dd/yyyy)	5/20/22	Time on Station: (hh:mm)	0500
FIB SAMPLE TIME:	020	Water Depth: _	3.3m
Tide (ft):	- 0.9	Time of Slack High Tide: _	00:14
Weather conditions:	lucezy,	overcest	
Wind (mph)/direction:	10-12 (3)	Water Visibility (ft): _	2.7
Surface Water Conditions:	light day	o n. debris	e c
Bird Enumeration:	n=0 , no po	ee p	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

n= 2 6 sats, arrived @ a 0700

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0803	18.2	33.76	8.00	8.18

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/20/22	Time:	11190	Signature:	Vakh
	010/00		, ,		

Station Identification:	A1-2-N3		
Date: (mm/dd/yyyy)	3/20/22	Time on Station: (hh:mm)	0878
FIB SAMPLE TIME:	0870	Water Depth:	4.5
Tide (ft):	-0.9	Time of Slack High Tide:	00:14
Weather conditions:	cloudy lover	east Green	
Wind (mph)/direction:	7-8kt (s)	Water Visibility (ft):	2.75
Surface Water Conditions:	light desp	, no dibis,	bubbles
Bird Enumeration:	n=0 / 9	ieson or boat	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

n: 2 foats,

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0813	18.1	33.77	8.00	8.18

- Field data sheet completed, notable observations recorded
- →Photos taken
- ✓All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- -Samples delivered within holding time requirements

Date:	5/20/22	_ Time:	1100	Signature:_	Kapen	
	· / · · · ·	• 4				

Station Identification:	A1-3-W3		
Date: (mm/dd/yyyy)	5/20/22	Time on Station: (hh:mm)	0815
FIB SAMPLE TIME:	08/5	Water Depth:	4.5m
Tide (ft):	-0.8	Time of Slack High Tide:	00:14
Weather conditions:	breeze		
Wind (mph)/direction:	5-7/4 (5)	Water Visibility (ft):	2-9
Surface Water Conditions:	It choppy		
Bird Enumeration:	n=0		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

Z Soat @ andor garrived @ 0700

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0813 0020	18.2	33.77	8.00	8.18

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	45/28	0/22	Time:	1100	Sig	nature:	1	M	
Date	1	1		1100					
		•							

Station Identification:	$\underline{\qquad}$ $NK-M3$		
Date: (mm/dd/yyyy)	5/20/22	Time on Station: (hh:mm)	0825
FIB SAMPLE TIME:	0825	Water Depth: _	0.6
Tide (ft):	-0.8	Time of Slack High Tide: _	00:14
Weather conditions:	curant, 61	reczy	,
Wind (mph)/direction:	- 11-161	Water Visibility (ft):	>0.6m
Surface Water Conditions:	light chy		
Bird Enumeration:	10, / per.	con /vmnar	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

moderate de bris iz water a luma (telestrade, ed grass,

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0830	18,0	33-77	7-97	7.95

QAQC Check	l	is	t:
------------	---	----	----

- Field data sheet completed, notable observations recorded
- Photos taken
- →All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
 - "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/20/22	Time:	1100	Signature:	Kahn
D ato	3/23/		, , , , , , , , , , , , , , , , , , , ,		7

Station Identification:	KB-W3		
Date: (mm/dd/yyyy)	5/20/22	Time on Station: (hh:mm)	0835
FIB SAMPLE TIME:	0835	Water Depth:	0.3
Tide (ft):	-0.8	Time of Slack High Tide:	00:14
Weather conditions:	breeze		/
Wind (mph)/direction:	8-10K(s)	Water Visibility (ft):	>0.3
Surface Water Conditions:	doppy T		,
Bird Enumeration:	n=8 /de	e, /person	
_			

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals eelgrass, kelp wrack, floatable material):

in water

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0838	17.6	33.6	797	7.88

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- →Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels

Samples delivered within holding time requirements

Date:	5/20/22	Time:	1100	Signature:	Valor
D ato					
	•				

FIELD WATER QUALITY DATA FORM						
Station Identification:	OF WS	FB-3 new	Lab source)			
Date: (mm/dd/yyyy)	5/20/22	Time on Station: (hh:mm)	0850			
FIB SAMPLE TIME:	6858	Water Depth:				
Tide (ft):		Time of Slack High Tide:				
Weather conditions:	overast, Ex	eegy				
Wind (mph)/direction:	þ	Water Visibility (ft):				
Surface Water Conditions:			•			
Bird Enumeration:						

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

FB-fest (ST)

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
·				

~ .	~~	\sim 1		list:
<i>1</i> 1 1	1 W -	ı n	$\Delta C V$	'Het'
WM	\mathbf{u}	UII	CUN	mot.

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/20/22	Time:	1100	Signature:_	Muhn	
_	7/0/					

Station Identification:	REF-1-WKDZ		
Date: (mm/dd/yyyy)	3/21/22	Time on Station: (hh:mm) _	0612
FIB SAMPLE TIME:	0615	Water Depth:	19.6m
Tide (ft):	Co/+	Time of Slack High Tide:	01:23
Weather conditions:	cloudy		
Wind (mph)/direction:	3-5/275(1)	Water Visibility (ft):	2,6 m
Surface Water Conditions:	light chop,	small bubble)
Bird Enumeration:	1-6, n. feip	•	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

n= 2 passing boats

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0620	18.2	33.57	7.94	7.79

- Field data sheet completed, notable observations recorded
- ✓ Photos taken
- ✓ All bacteria samples collected (125-mL HDPE: Total Coliform and *Enterococcus*)
- ✓ Samples collected within 25 feet of target location? If not, please describe below.
- ✓ "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ✓ COCs filled out and cross-checked with sample labels
- ✓ Samples delivered within holding time requirements

Date:	05/21/2022	Time: \100	Signature: Marin Swidershi
-			

Station Identification:	A1-1-R1-,	WKD2	
Date: (mm/dd/yyyy)	5/21/22	Time on Station: (hh:mm) _	0634
FIB SAMPLE TIME:	0635	Water Depth: _	3.9 m
Tide (ft):	0.81	Time of Slack High Tide:	01:23
Weather conditions:	cloudy,	light breeze	
Wind (mph)/direction:		Water Visibility (ft):	2.4m
Surface Water Conditions:	light		
		people no degs	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

15 bonts C andor

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0640	18.1	33.67	7.99	8.13

- Field data sheet completed, notable observations recorded
- ✓ Photos taken
- ✓ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- ✓ Samples collected within 25 feet of target location? If not, please describe below.
- ✓ "Clean Hands" sampling techniques followed
- ✓ Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ✓ COCs filled out and cross-checked with sample labels
- ✓ Samples delivered within holding time requirements

Date:	05/21/2022	Time:	1100	Signature:	Marin Swidershi
Date	03/2,12022				

Station Identification:	A1-2-101.	02	
Date: (mm/dd/yyyy)	5/21/22	Time on Station: (hh:mm) _	0643
FIB SAMPLE TIME:	,	Water Depth: _	4.8
Tide (ft):	0.71	Time of Slack High Tide: _	01:23
Weather conditions:	chaly		
Wind (mph)/direction:	3-4 Kt (5)	Water Visibility (ft): _	2.1m
Surface Water Conditions:	light surface	ware, no de	chris
Bird Enumeration:	A=0 No prop		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

15 books @ andrew

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0646	1811	33.69	7,99	8.05

QAQC Checklist:
Field data sheet completed, notable observations recorded
✓ Photos taken
✓ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
Samples collected within 25 feet of target location? If not, please describe below.
✓ "Clean Hands" sampling techniques followed
✓ Samples sealed in secondary container (plastic bag) and immediately placed on ice
✓ COCs filled out and cross-checked with sample labels
Samples delivered within holding time requirements

Date: 05/21/2022 Time: 1100 Signature: Marin Swidershi

Station Identification:	41-3-R1-WKUZ	
Date: (mm/dd/yyyy)	Time on Station: (hh:mm) 0650	
FIB SAMPLE TIME:	OCTO Water Depth: 5-2 n	
Tide (ft):	0.67 Time of Slack High Tide: 0/: 23	
Weather conditions:	donday	
Wind (mph)/direction:	3-4km (3) Water Visibility (ft): 2. 4	
Surface Water Conditions:	light wind clop	
Bird Enumeration:	124, 1= people/des	
•		_

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

1=15 Goats Cardron

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0655	18.2	33.69	7.99	8.05

QA(QC	Ch	eck	<u> (list:</u>

- Field data sheet completed, notable observations recorded
- ✓ Photos taken
- ✓ All bacteria samples collected (125-mL HDPE: Total Coliform and *Enterococcus*)
- ✓ Samples collected within 25 feet of target location? If not, please describe below.
- ✓ "Clean Hands" sampling techniques followed
- ✓ Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- ✓ Samples delivered within holding time requirements

Date:	05/21/2022	Time:	1100	Signature:	Marin Swiderski
Date	03/21/20 66	_ '''''	1 . 0 0		

Station Identification:	A1-1-12-	WKDZ	
Date: (mm/dd/yyyy)	5/21/22	Time on Station: (hh:mm) _	0735
FIB SAMPLE TIME:	0735	Water Depth: _	3.9m
Tide (ft):	01/+	Time of Slack High Tide:	01:23
Weather conditions:	chady		,
Wind (mph)/direction:	4.5K+B)	Water Visibility (ft):	2.4m
Surface Water Conditions:	light wine	/	•
Bird Enumeration:	n=0,/0	log on bodble 6	rand

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

15 bonts Canchur 2 paddle boards + 1dog

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0736	18.1	33.72	8,07	8,05

- ✓ Field data sheet completed, notable observations recorded
- ✓ Photos taken
- ✓ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- ✓ Samples collected within 25 feet of target location? If not, please describe below.
- ✓ "Clean Hands" sampling techniques followed
- ✓ Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ✓ COCs filled out and cross-checked with sample labels
- ✓ Samples delivered within holding time requirements

Date: 05/21/2022 Time: 1100 Signature: Marin Swide
--

Station Identification:	A1-2-R2-WKI	02/A1-2-22-	-MKD2
Date: (mm/dd/yyyy)	5/21/22	Time on Station: (hh:mm)	0750
FIB SAMPLE TIME:	0950/0751	Water Depth:	4.3
Tide (ft):	-0.2	Time of Slack High Tide:	01:23
Weather conditions:	cl.udy		
Wind (mph)/direction:	4-5K+(8)	Water Visibility (ft): _	29
Surface Water Conditions:	light chap	, no debuis	
Bird Enumeration:	10 , /pc-	on topside	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

11=15 boats @ andor

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0754	18.2	33.72	\$. 00	8,20

QA	\mathcal{C}	Che	ckli	ist:
W/A	3 , •	U.	OIV.	

- \checkmark Field data sheet completed, notable observations recorded
- ✓ Photos taken
- ✓ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- ✓ Samples collected within 25 feet of target location? If not, please describe below.
- ✓ "Clean Hands" sampling techniques followed
- ✓ Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ✓ COCs filled out and cross-checked with sample labels
- ✓ Samples delivered within holding time requirements

Date:	05/21/2022	Time:	1100	Signature:	Mario	Awidenki
Date.	03/21/0 00					

Station Identification:	A1-3-RZ-WED	7	•
Date: (mm/dd/yyyy)	5/21/22	Time on Station: (hh:mm) _	0800
FIB SAMPLE TIME:	0800	Water Depth: _	4. 9m
Tide (ft):	-0.3	Time of Slack High Tide: _	01:23
Weather conditions:	cloudy		
Wind (mph)/direction:	3-4 Kts (5)	Water Visibility (ft):	2-4n
Surface Water Conditions:	light chop		
Bird Enumeration:	n=1 gull /	Apsido	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

15 boats & ancha

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0805	18.2	33.73	7.99	7.98

- ✓ Field data sheet completed, notable observations recorded
- ✓ Photos taken
- ✓ All bacteria samples collected (125-mL HDPE: Total Coliform and *Enterococcus*)
- ✓ Samples collected within 25 feet of target location? If not, please describe below.
- ✓ "Clean Hands" sampling techniques followed
- ✓ Samples sealed in secondary container (plastic bag) and immediately placed on ice
- \checkmark COCs filled out and cross-checked with sample labels
- ✓ Samples delivered within holding time requirements

Date:	05/21/	2022	Time:	1100	Signature:	Marin Swiderski
_ ~	0 0 1 - 1					

Station Identification:	A1-1-R3-h	KDZ	
Date: (mm/dd/yyyy)	5/21/22	Time on Station: (hh:mm) _	0855
FIB SAMPLE TIME:		Water Depth: _	3.5 K
Tide (ft):	-0.4	Time of Slack High Tide: _	01:23
Weather conditions:	cloudy		
Wind (mph)/direction:	3-5 K+5(5)	/ Water Visibility (ft): _	2.5m
Surface Water Conditions:	light surb	ice wares, no de	chris
Bird Enumeration:		ape in logs	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

1215- 602ts @ ander

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0838	18.2	33.74	8.04	8.23

- ✓ Field data sheet completed, notable observations recorded
- ✓ Photos taken
- ✓ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- ✓ Samples collected within 25 feet of target location? If not, please describe below.
- ✓ "Clean Hands" sampling techniques followed
- \checkmark Samples sealed in secondary container (plastic bag) and immediately placed on ice
- \checkmark COCs filled out and cross-checked with sample labels
- ✓ Samples delivered within holding time requirements

Date:	05/21/2022	Time: 1100	Signature:	Marise Auroleski
Date.	001 112			

Station Identification:	A1-2-13-WKD	2	
Date: (mm/dd/yyyy)	5/21/22	Time on Station: (hh:mm)	0845
FIB SAMPLE TIME:	0745	Water Depth:	4.6
Tide (ft):	-0.5	Time of Slack High Tide:	01:23
Weather conditions:	c/ouly		
Wind (mph)/direction:	34Kt (5)	Water Visibility (ft):	2-7n
Surface Water Conditions:	light chap,	no de bis	/
Bird Enumeration:	120 1260	eople/dog	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

1215 boats a archer

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0847	18,2	33.74	8.02	8.24

- Field data sheet completed, notable observations recorded
- ✓ Photos taken
- ✓ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- ✓ Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- \checkmark Samples sealed in secondary container (plastic bag) and immediately placed on ice
- \checkmark COCs filled out and cross-checked with sample labels
- ✓ Samples delivered within holding time requirements

Date:	05/21	12022	Time:	1100	Signature:_	Marisa	Awrelesshi
Date.	- 1 - 1						

Station Identification:	A1-3-R3-h	KDZ
Date: (mm/dd/yyyy)	5/21/22	Time on Station: (hh:mm)
FIB SAMPLE TIME:	0850	Water Depth: 4.7
Tide (ft):	-0.5	Time of Slack High Tide:
Weather conditions:	closely	
Wind (mph)/direction:	4-5 KB (Water Visibility (ft): 2.7
Surface Water Conditions:	light su-	
Bird Enumeration:	n-8, 1:	3 person topside

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

1215 boats

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0853	18.2	33.74	8.00	8.04

- \checkmark Field data sheet completed, notable observations recorded
- ✓ Photos taken
- ✓ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- \checkmark Samples collected within 25 feet of target location? If not, please describe below.
- ✓ "Clean Hands" sampling techniques followed
- \checkmark Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ✓ COCs filled out and cross-checked with sample labels
- ✓ Samples delivered within holding time requirements

Date:	05/21/2022	Time:	1100	Signature:	Marise	Aurdenti
Date.	0012110002					

PORT OF SAN DIEGO SHELTER ISLAND YACHT BASIN 2022 Bacteria Special Study

FIELD WATER QUALITY DATA FORM					
Station Identification:	0F2-WKD2/0F2-DW-3				
Date: (mm/dd/yyyy)	Time on Station: (hh:mm) 07vo	_			
FIB SAMPLE TIME:	0700 /0710 Water Depth: /, 0+				
Tide (ft):	O. 4+ Time of Slack High Tide: 0/:23	_			
Weather conditions:	clindy				
Wind (mph)/direction:	2-3 L+3 Water Visibility (ft): > 1-0 ~				
Surface Water Conditions:	light breeze, bubbles Conffell				
Bird Enumeration:	n=0 bird, no prople/mologs				

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

flow Zgals/m.h

Water Quality Measurements

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0700	18,1	33.59	7.96	7.52
· 1 - 2 cs	.7 2	A OV	00.	

(DW) 0710

17.3

0.84

8.71

9.58

- ✓ Field data sheet completed, notable observations recorded
- ✓ Photos taken
- ✓ All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- ✓ Samples collected within 25 feet of target location? If not, please describe below.
- ✓ "Clean Hands" sampling techniques followed
- ✓ Samples sealed in secondary container (plastic bag) and immediately placed on ice
- ✓ COCs filled out and cross-checked with sample labels
- ✓ Samples delivered within holding time requirements

Date: 05/21/2022 Time: 1100 Signature: Marine Durder
--

Station Identification:	REFI-N4		
Date: (mm/dd/yyyy)	5/23/22	Time on Station: (hh:mm)	OSNO
FIB SAMPLE TIME:	0800	Water Depth:	20.8 m
Tide (ft):	+2.0	Time of Slack High Tide:	04:16
Weather conditions:	overcost, c	loudy	
Wind (mph)/direction:	3 Kt (4)	Water Visibility (ft):	3./ n.
Surface Water Conditions:	light chap		
Bird Enumeration:	1=0, as so	urface debirs	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

2 passing boats

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0804	18.4	33,41	7.95	7.66

QAQC Checklis	t:
----------------------	----

- Eield data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/23/22	Time:	12:30	_ Signature:
D ato:_	12/2		1-00	

Station Identification:	GD-N4		
Date: (mm/dd/yyyy)	5/23/22	Time on Station: (hh:mm) _	0870
FIB SAMPLE TIME:	0816	Water Depth: _	66
Tide (ft):	2.0+	Time of Slack High Tide:	04:16
Weather conditions:	dividy		
Wind (mph)/direction:	<td>(ft): _</td> <td>4.0</td>	(ft): _	4.0
Surface Water Conditions:	calm,	o surfice deb	ns.
Bird Enumeration: _	1=\$ n=	il people/dog=\$,

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

none

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0815	18.6	33.59	7.91	7.22

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: 5/23/22 Time: /2:30 Signature:

Station Identification:	KK-WY	-	
Date: (mm/dd/yyyy)	5/23/22	Time on Station: (hh:mm)	08. 2 0m
FIB SAMPLE TIME:	0820	Water Depth:	0.3~
Tide (ft):	1.7+	Time of Slack High Tide:	04:4
Weather conditions:	Cloudes		
Wind (mph)/direction:	1/64 (5/5	Water Visibility (ft):	> 0.3~
Surface Water Conditions:	light ,	pples	
Bird Enumeration:	N 50, 0	ll 2 porso	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

nuc, passing vessel

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
082/	18.6	33.62	7.91	7.18

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- ~"Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5	23	122	Time:	12:30	_ Signature:_	Lep	
	1	/						<i>,</i>

Station Identification:	MC-1-WY		
Date: (mm/dd/yyyy)	5/23/22	Time on Station: (hh:mm) _	0827
FIB SAMPLE TIME:	0830	Water Depth: _	5.52
Tide (ft):	1.8+	Time of Slack High Tide: _	04:/6
Weather conditions:	Cloudy		, , , ,
Wind (mph)/direction:	1 Kt S/SW	Water Visibility (ft): _	1.9m
Surface Water Conditions:	v. light vij	iles	
Bird Enumeration:	1=0		

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

I paddler I strond of floating kelp

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0831	18.7	33,68	7.97	7.59

QAQC Checklist:

Field data sheet completed, notable observations recorded

Photos taken

All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)

Samples collected within 25 feet of target location? If not, please describe below.

"Clean Hands" sampling techniques followed

Samples sealed in secondary container (plastic bag) and immediately placed on ice

COCs filled out and cross-checked with sample labels

Samples delivered within holding time requirements

Date: $\frac{5/23}{22}$ Time: $\frac{2:30}{30}$ Signature:

MCZ-NY		
5/23/22	Time on Station: (hh:mm)	0835
0835	Water Depth:	5.3 m
1.67	Time of Slack High Tide:	114:16
C/sudy		
<1-29cts(s)	Water Visibility (ft):	3./m
` '		
		. /
	5/23/22 0835 1.6 + C/suly <1-2/45(s)	Water Depth: 1.6 Time of Slack High Tide:

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

Sone

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0837	18,9	33,70	7.96	7.86

- Field data sheet completed, notable observations recorded
- ∠Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- -Samples delivered within holding time requirements

Date:	5/23/22	Time: /2:3:0	Signature:
D ato			
	′ /	•	
		,	

Station Identification:	FP-WY		
Date: (mm/dd/yyyy)	5/23/22	Time on Station: (hh:mm) _	0845
FIB SAMPLE TIME:	0845	Water Depth: _	4.5m
Tide (ft):	1.50 /2	Time of Slack High Tide: _	04:16
Weather conditions:	cloudy		
Wind (mph)/direction:	< 125	Water Visibility (ft): _	2.2m
Surface Water Conditions:	caln	sarfacche	er spiel
Bird Enumeration:	1=0 /	ferson	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

oil sheen, fish waste floating 6 wessels docked @ FP

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0846	18.9	33.70	7.94	7.54

QAQ	C	Che	eck	list:
------------	---	-----	-----	-------

- Field data sheet completed, notable observations recorded
- →Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: $\frac{5/23/22}{2}$ Time: $\frac{2:30}{2}$ Signature:

Station Identification:	0F3-WY		
Date: (mm/dd/yyyy)	5/23/2	Time on Station: (hh:mm)	OSTV
FIB SAMPLE TIME:	0850	Water Depth:	2.0n
Tide (ft):	~/.0+	Time of Slack High Tide:	04:40
Weather conditions:	cloudy		,
Wind (mph)/direction:	4/x+	Water Visibility (ft):	2./n
Surface Water Conditions:	calm	, no debris	
Bird Enumeration:	1=0 N	is people/no a	logs
	/	' / '	\mathcal{O}

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

A= none

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0851	19.0	33.71	7.93	7.25

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date:	5/23/	22	Time:	12:30	Signature:_	Mul	m
	3/20/			V	•		<u> </u>

PORT OF SAN DIEGO SHELTER ISLAND YACHT BASIN 2022 Bacteria Special Study

FIELD WATER QUALITY DATA FORM						
Station Identification:	OF2-WY/	022-DW-	7	_		
Date: (mm/dd/yyyy)	5/23/22	Time on Station: (hh:mm)	0905	_		
FIB SAMPLE TIME:	0905 0915	Water Depth:	1.0 m	-		
Tide (ft):	-0.8 t	Time of Slack High Tide:	04:16	-		
Weather conditions:	cloudy			_		
Wind (mph)/direction:	1-2kts (5/5W)	Water Visibility (ft):	71.0m	_		
Surface Water Conditions:	V. /19 4 rigg	les , some	sarkec dust	/dclon;		
	1=6, n=2,	, ,		-		
** ** * * * * * * * * * * * * * * * *						

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

babbles C meter sarface, flow or Galfmin

Water Quality Measurements

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0909	18.8	32.70	7-93	6.77
0915	17.8	0.61	8776	9.49

OPC-DW-5

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- →Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: 5/23/22 Time: /2:30 Signature:

Station Identification:	BS-WY		
Date: (mm/dd/yyyy)	5/23/22	Time on Station: (hh:mm)	0920
FIB SAMPLE TIME:	0920	Water Depth:	0.3
Tide (ft):	~0.4x	Time of Slack High Tide:	04:16
Weather conditions:	o/oudy		/
Wind (mph)/direction:	2-3/ts (-	Water Visibility (ft):	>03
Surface Water Conditions:	/1/21 chap	no sur	Acc
Bird Enumeration:	N= (Kora)	,	n 2 3 dog 5

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

2 payle on beach, others on youh they + /deg.

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0925	18.7	33.67	7.93	7.29

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

			en e	/	. /
Date:	to/22/22	Time:	<u> /2:30</u> Sign	nature:	
Date	0/05/00	' '''''	- / U) U - 19.		
	/ /				

TILLE WATER QUALITY DATA FORM						
Station Identification:	0×1- N4	CF1-DW-	,			
Date: (mm/dd/yyyy)	5/23/	Time on Station: (hh:mm)	0930			
FIB SAMPLE TIME:	0930 083	Water Depth:	0.3			
Tide (ft):	~0.3+	Time of Slack High Tide: _	04:16			
Weather conditions:	doudy		/			
Wind (mph)/direction:	1-2 Kts 6/	✓ Water Visibility (ft): _	% 0.3			
Surface Water Conditions:	light wind	, m debnis	tari			
Bird Enumeration:	= of n= / do	n=/yen	on			

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

oft fall thing ~ /gal/min

Water Quality Measurements

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0932	18.7	23,65	7.97	7.80

75-1-DN-1 0935

17.9

0.73

8.43

8.87

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: 5/23/2> Time: /2:30 Signature:

Station Identification:	A1-1-N4/A1-1-N4 du	! /
Date: (mm/dd/yyyy)	Time on Station: (hh:mm)	0945
FIB SAMPLE TIME:		3 km
Tide (ft):	✓ O, Z + Time of Slack High Tide:	p4://
Weather conditions:	doudy	
Wind (mph)/direction:	2-3 5/5W Water Visibility (ft):	2.0 n
Surface Water Conditions:	1,27 chip, no debris	· · · · · · · · · · · · · · · · · · ·
Bird Enumeration:	n=0, # pergé, Zdogsor	deck

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

1=6 bonts e sayle time, served 6 outs
pulling anchor

1 boat in near vicinity during samplings
~ 40 ff.

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
0950	18.8	33.72	7.97	7.15

- Field data sheet completed, notable observations recorded
- →Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date.	5/23/22	Time: /	12:2n	Signature:	1/1/1	Mr.
Date	7/05/00	_ · ········		9	100	
		•	_			
	, ,					
					/	

Station Identification:	A1-2-WY		
Date: (mm/dd/yyyy)	5/23/22	Time on Station: (hh:mm)	0955
FIB SAMPLE TIME:	095	Water Depth:	4.82
Tide (ft):	~ 0,2+	Time of Slack High Tide:	DV://
Weather conditions:	chudy		
Wind (mph)/direction:	1-3 Kts/5/	Water Visibility (ft):	2-7n
Surface Water Conditions:	light ripples	, no debris	
Bird Enumeration:	' '	ple Idig	

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

123 boats @ anchor, none in ucinity of sample

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
1000	18.8	33.73	7.29	7.99

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- ✓Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: 5/23/2	Z Time:	/ຂ:2ປ Signature:	N.M.
Dato			F
•			/ /

Station Identification:	A1-3-WY		
Date: (mm/dd/yyyy)	5/23/22	Time on Station: (hh:mm)	1000
FIB SAMPLE TIME:	1000	Water Depth:	4.9
Tide (ft):	~0.2+	Time of Slack High Tide:	04:16
Weather conditions:	dondy		
Wind (mph)/direction:	2-3K+1 (5/50	Water Visibility (ft):	2.5n
Surface Water Conditions:	light chop		
Bird Enumeration:	1=0, n=2	-perple, of	dogs

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

n=3 boats e anchur noboats in ucinity during sampling

Water Quality Measurements

Time of Measurement	Temperature (°C)	Salinity (ppt)	pН	DO (mg/L)
1003	18.9	33.74	7.19	7.71

QA	QC	: Cł	nec	:kl	list:

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

5/23/22 Time: 12:20 Signature: //

Station Identification:	NK-WY		
Date: (mm/dd/yyyy)	5/23/22	Time on Station: (hh:mm)	[o/6
FIB SAMPLE TIME:		Water Depth:	0.3
Tide (ft):	40.1+	Time of Slack High Tide:	04:/6
Weather conditions:	cloudy		
Wind (mph)/direction:	1-3 Kts	// Water Visibility (ft):	> 0.3
Surface Water Conditions:	oalm,	no debns.	
Bird Enumeration:	1=8, 4/	reople on beach	, no dogs

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

n: 1 Kayak on bead.

4 books reachered from la playa
150 yards south of NK Beach

Water Quality Measurements

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
1012	18.8	33.76	7.97	7.80

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- →Photos taken
- Att bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- "Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: 5/23/22 Time: /2:30 Signature: Paper

Station Identification:	13-WY		
Date: (mm/dd/yyyy)	1020 5	Time on Station: (hh:mm)	1020
FIB SAMPLE TIME:	1026	Water Depth:	0.3
Tide (ft):	~o.(+	Time of Slack High Tide:	04:16
Weather conditions:	cloudy		
Wind (mph)/direction:	2-3 K+/	Water Visibility (ft):	70.3
Surface Water Conditions:	light of	op, no deber	
Bird Enumeration:	n = lgull, l	1 = Yyesple, oncs	winer on beach
	ν	n=2	digs.

Other Notes: including any potential confounding factors of concern observed (e.g., sheens, discoloration, odors, slicks, boat maintenance, plankton blooms, recent rain events, presence of animals, eelgrass, kelp wrack, floatable material):

rone

Water Quality Measurements

Time of Measurement	Temperature (°C)	Salinity (ppt)	рН	DO (mg/L)
1022	19.2	33.80	7.98	8.65

QAQC Checklist:

- Field data sheet completed, notable observations recorded
- Photos taken
- All bacteria samples collected (125-mL HDPE: Total Coliform and Enterococcus)
- Samples collected within 25 feet of target location? If not, please describe below.
- Clean Hands" sampling techniques followed
- Samples sealed in secondary container (plastic bag) and immediately placed on ice
- COCs filled out and cross-checked with sample labels
- Samples delivered within holding time requirements

Date: 5/23/22 Time: /2:30 Signature:

APPENDIX B FIELD DATA SUMMARY TABLES

Sanion Identification	Further	Summer Data	Time on Station	FIR Sample Time	Water Depth (m) Tide (ft)	Time of Slack High Tide	Weather Candilians	Wind	Wind Wind Speed Speed Minimum Maximum (mph) (mph)	Water Visibility (m)	Surface Water Can Ediana	Number	Numb	Number per of N	Number	Water Quality Time of	Water Quality - Temperature (-C)	Water Quality - Salinity (ppt)		Water Quality - DO (mg/L)	Other Notes
Station Identification	identification	Survey Date					Weather Conditions	Direction			Surface Water Conditions	or Birds			or Dogs					1 0 /	Sample collected in marina/harbor, number of vessels is approximate. Some oily sheen throughout docks. Patchy, avoided
Guest Dock Kona Kai	W1 W1	05/06/22 05/06/22	6:00 6:10	6:00	6.0 1.4 2.5 1.1	23:58 23:58	Cloudy, Calm Cloudy, Calm (clearing)	NA NA	0 0	4.1 2.5	Calm Calm	1	0		0	6:05 6:15	18.5 18.6	34.15 34.36	8.02	7.82 7.36	during sampling by moving 75ft west Sample collected in marina/harbor, number of vessels is approximate.
REF-1	W1	05/06/22	6:25	6:25	20.4 1.0	23:58	Cloudy, calm	NA.	0 0	2.9	Calm, some texture	0	0		0	6:28	18.7	34.45	8.09	7.95	Sumple contects in mainly narrow, named or residual to approximate.
MC-1	W1	05/06/22	6:35	6:35	5.3 1.0	23:58	Cloudy, Calm	NA	0 0	2.8	Calm	0	0		0	6:38	18.6	34.47	8.09	8.12	no sheen or surface debris or kelp
MC-2	W1	05/06/22	6:45	6:45	5.0 0.9	23:58	Calm	E	0 1	2.7	Calm, slight texture	0	0	\neg	0	6:48	18.8	34.50	8.07	7.91	no surface debris or kelp
Fuel Pier	W1	05/06/22	6:55	6:55	4.5 0.9	23:58	Cloudy, calm	E	0 1	2.3	Calm	0	1		0	6:58	18.7	34.51	8.02	7.15	Vessel running bilge while fueling within 10 yds of sampling location Sample collected in marina/harbor, number of vessels is approximate. Sample collected in marina/harbor, number of vessels
OF-3	W1	05/06/22	7:00	7:00	1.9 0.8	23:58	Calm	NA	0 0	2.4	Calm	0	0	~20	0	7:05	18.7	34.50	8.01	7.20	is approximate.no surface debris or kelp
OF-2 Bessemer Street	W1 W1	05/06/22 05/06/22	7:20 7:35	7:20 7:40	0.3 0.6 0.3 0.6	23:58 23:58	Cloudy, calm Cloudy, Calm	s	0 1	0.3	Calm Calm, some bubbles on surface	0	1	0	0	7:25 7:44	18.6 18.5	34.39 34.32	8.04 8.05	7.18 7.24	Discharge from OF2 observed, salinity 1.49ppt and 18 inches above waterline. No Surface debris DUP collected at 0741. No discharge from outfall, one strand of feather boa kelp on beach. Some floating kelp offshore
OF-1	W1	05/06/22	7:50	7:50	0.3 0.5	23:58	Cloudy, calm	NA.	0 0	1.8	Calm	0	2		0	7:58	18.6	34.46	8.06	7.73	No discharge from OF1
A1-1	W1	05/06/22	8:00	8:00	3.6 0.5	23:58	Calm	S	0 1	2.8	Calm	0	0	0	0	8:02	18.6	34.49		8.10	
A1-2	W1	05/06/22	8:05	8:05	4.5 0.5	23:58	Cloudy, Calm	S S	1 2	2.9	Some texture	0	0		0	8:07	18.6	34.50	8.09	8.06	One boat anchored 150 ft SW during sampling
A1-3 North Kellogg	W1 W1	05/06/22 05/06/22	8:10 8:20	8:10 8:20	5.0 0.5 0.6 0.5	23:58 23:58	Cloudy, calm Cloudy, calm	S	0 1	3.2 0.6	Calm calm, slight texture	0	0		0	8:14 8:25	18.7 18.6	34.52 34.52	8.09 8.10	8.05 8.17	One vessel anchored 200 ft SW Sandy bottom, one piece of eelgrass floating, avoided during sampling
Kellogg Beach	W1	05/06/22	8:30	8:30	0.6 0.5	23:58	Cloudy, Breezy	S	1 2	0.6	Some texture	1	5		5	8:32	18.6	34.44	8.09	8.33	Filamentous green algae growing on bottom, see photos.
REF-1	WKD	05/07/22	6:20	6:25	18.4 1.5	0:48	Cloudy, Breezy	S	7 8	2.5	Textured	0	0		0	6:28	19.2	34.26	7.97	8.14	
A1-1	R1-WKD1	05/07/22	6:40	6:40	3.9 1.5	0:48	Cloudy, Breezy	S	5 5	2.5	Slight texture	0	0		0	6:45	19.1	34.40	8.05	8.16	
A1-2 A1-3	R1-WKD1	05/07/22 05/07/22	6:45 6:55	6:50	5.0 1.5 5.3 1.4	0:48	Cloudy, Breezy Cloudy, Breezy	S	5 5 3.5 3.5	2.9	Slight texture Slight texture	0	0		0	6:50 7:00	19.0 19.2	34.45 34.48	8.05 8.05	8.15 8.02	DUP Collected at 06:56
OF-2-DW1	WKD1	05/07/22	7:15	7:20	0.3 1.1	0:48	Cloudy, Breezy	S	1 2	2	calm, Some bubbling	0	0		0	7:15	17.7	3.28	8.48	9.04	Flow from outfall estimated at 2 gpm. WQ from RW: Temp (19.1), Salinity (33.80), pH (8.02), DO (7.45)
A1-1	R2-WKD1	05/07/22	7:40	7:40	3.8 1.0	0:48	Cloudy, Calm	s	3 3	2.5	Light texture	0	0	20	0	7:42	19.0	34.44	8.11	8.13	
A1-2	R2-WKD1	05/07/22	7:45	7:45	5.0 1.0	0:48	Cloudy, Calm	S	1 2	3.0	Calm	0	3	\neg	0	7:49	19.0	34.50	8.08	8.14	Paddle boarder along Bessemer (1)
A1-3 A1-1	R2-WKD1 R3-WKD1	05/07/22 05/07/22	7:55 8:40	7:55 8:40	5.1 0.8 3.7 0.6	0:48	Cloudy, Calm Cloudy, Breezy	S	0 1 7.5 7.5	3.3 2.4	Calm Slight texture	0	6		0	7:57 7:45	19.1 19.0	34.53 34.46	8.08 8.14	8.04	All people topside 2 paddle boarders
A1-2	R3-WKD1	05/07/22	8:50	8:50	4.5 0.5	0:48	Cloudy, Breezy	S	7 7	2.8	Light texture	0	0		0	8:52	19.0	34.51	8.12	8.22	а умиль монты и
A1-3	R3-WKD1	05/07/22	8:55	8:55	4.9 0.5	0:48	Cloudy, Calm	s	4 4	3.3	Slight texture	0	4	21	0	8:58	19.2	34.54	8.11	8.06	3 paddle boarders, 1 kayaker nearby
REF-1	SH	05/10/22	7:55	7:55	21.3 3.0	5:18	Sunny, Calm	NA	0 0	2.3	Calm	0	0		0	7:57	18.5	34.20	8.06	7.83	
A1-1 A1-2	R1-SH R1-SH	05/10/22 05/10/22	8:13 8:20	8:15 8:20	4.3 3.0 5.0 2.9	5:18 5:18	Sunny, Calm	NA NA	0 0	2.3	Calm Calm	0	1		0	8:16 8:21	19.2 19.2	34.49 34.54	8.11 8.11	7.85	a few strands of kelp on surface
A1-3	R1-SH	05/10/22	8:20	8:30	5.5 2.8	5:18	Sunny, Calm Sunny, Calm	NA S	0 1	2.5	Calm	0	0		0	8:32	19.4	34.56	8.11	7.80	One paddle boarder and three people topside A1-3-R1-SH-DUP conducted at 0831
A1-1	R2-SH	05/10/22	9:15	9:15	4.0 1.8	5:18	Sunny, mostly calm	NW	1 3	2.3	Mostly calm	0	5		2	9:22	19.4	34.60	8.18	7.90	Dogs on two different vessels. One kayaker. Some people out on dinghy's.
A1-2	R2-SH	05/10/22	9:25	9:25	4.8 1.8	5:18	Sunny, mostly calm	NW	1 2	2.5	light breeze, some bubbles	0	3		2	9:26	19.4	34.59	8.13	7.92	
A1-3 OF-2-DW2	R2-SH SH	05/10/22 05/10/22	9:30 9:45	9:30 9:45	5.3 1.8 0.3 1.5	5:18 5:18	Sunny, light breeze Sunny, light breeze	W. NW	2 4	2.8 NA	Slight texture Mostly calm	0	7		2	9:35 9:45	19.4 17.3	34.61 0.68	8.12 8.81	7.86 9.47	One paddle boarded and one diver, one topside cleaner ~50 yds of sample collection (polishing). See photo. DW-2 Flow ~2 gpm. From RW: temp 19.4, sal: 34.44, pH: 8.05, DO: 6.87, Taken at 1 ft depth 1 ft from outfall
A1-1	R3-SH	05/10/22	10:12	10:15	3.6 1.2	5:18	Sunny, light breeze	W, NW	2 4	2.7	Light texture	0	0		1	10:17	17.3	34.62	8.14	7.70	DW-2 Flow "2 gpm. From kW: temp 19:4, sai: 34:44, ph: 8.05, DU: 6.87. Taken at 1 ft depth 1 ft from outrail Several dinghy's out, on beach
A1-2	R3-SH	05/10/22	10:20	10:20	4.6 1.1	5:18	Sunny, light breeze	W, NW	2 3	2.5	Light texture	0	3	\neg	2	10:24	19.6	34.63	8.12	7.91	
A1-3	R3-SH	05/10/22	10:30	10:30	5.0 1.0	5:18	Sunny, light breeze	W, NW	2 4	2.9	Light texture	0	2	21	2	10:35	19.6	34.64	8.12	7.83	
REF-1	W2	05/13/22	7:50	7:50	20.9 4.6	8:02	Sunny, Calm	NA	0 1	3.7	Calm	0	0	0	0	7:58	16.2	33.26	7.89	6.22	Rental meter used for WQ readings. Some dust/debris on water after several days of high winds, Santa Ana's last night. A couple boats remaining in the
A1-1	W2	05/13/22	8:15	8:15	4.8 4.6	8:02	Sunny, Calm	NA	0 0	2.7	Calm	0	3	3	1	8:20	17.7	33.66	7.98	6.50	anchorage.
A1-2 A1-3	W2 W2	05/13/22 05/13/22	8:24 8:30	8:25 8:30	5.5 4.5 5.9 4.5	8:02 8:02	Sunny, Calm Sunny, Calm	E	0 1	2.8	Mostly calm Calm, minor dust/debris	0	4		0	8:27 8:34	17.7 17.8	33.69 33.73	8.01	6.58	3 prone paddlebroads and 1 standup 2 people on deck, 1 paddleboard
									0 1		calm, Some pollen/debris. See		3	3							
OF-1	W2	05/13/22	8:37	8:40	0.3 4.4	8:02	Sunny, Calm	NA	0 0	0.3	photo.	1	5	0	1	8:44	18.0	33.83	8.02	6.42	5 people on walking path
Bessemer Street	W2	05/13/22	8:48	8:50	0.6 4.3	8:02	Sunny, Calm	NA	0 0	0.6	Some surface film/bubble see photo	0	4	0	0	8:53	18.1	33.76	8.03	6.05	4 people on walking path
OF-2 OF-3	W2 W2	05/13/22 05/13/22	9:00 9:15	9:00 9:15	1.0 4.2 3.0 4.1	8:02 8:02	Sunny, Calm Sunny, Calm	NA NA	0 0	2.1	Some pollen/ surface debris Some surface film/ dust, see photo	0	6		0	9:02 9:17	17.8 18.1	32.76 33.88	8.02 8.01	6.15 5.49	6 people on walking path. Outfall inundated with bay water due to tide. Sample collected in marina/harbor, number of vessels is approximate. 1 person on dock
	W2	05/13/22	9:25	9:25		8:02		NON	1 1	2.5	Some sheen near sample area		4		0	9:30	18.1	33.86	7.98	5.67	Sample conected in manna/mandor, number of vessels is approximate. 1 person on dock
Fuel Pier MC-2	W2 W2	05/13/22 05/13/22	9:25 9:35	9:25 9:35	5.4 4.0 5.7 4.0	8:02 8:02	Sunny, Calm Sunny, Calm	E	1 1	2.5	avoided during sampling Mostly calm	0	1		0	9:30 9:38	18.1	33.86	7.98 8.06	5.67 6.41	Topside cleaning within 50 yds
MC-1	W2	05/13/22	9:45	9:45	6.1 4.0	8:02	Sunny, Calm	E	0 1	2.9	Mostly calm	0	2		0	9:47	18.1	33.86	8.06	7.25	Topade dealing within 30 yaz
North Kellogg	W2	05/13/22	9:55	9:55	0.1 3.9	8:02	Sunny, Calm	E	0 1	0.1	Calm, some bubbles	0	5		1	9:58	18.5	33.86	8.04	7.05	
Kellogg Beach	W2	05/13/22	10:00	10:00	0.2 3.9	8:02	Sunny, Calm	E	0 1	0.2	Calm, \Some bubble, algae debris	0			1	10:04	18.8	33.92	8.06	7.10	
Guest Dock Kona Kai	W2 W2	05/13/22	10:10	10:10	6.8 3.9	8:02 8:02	Sunny, Calm Sunny, light breeze	NA W	0 0	3.7	Calm, Some dust/debris	0	3		0	10:12	17.8	33.88	8.04	6.71 7.12	Sample collected in marina/harbor, number of vessels is approximate. 3 people on docks Sample collected in marina/harbor, number of vessels is approximate. KK-W2-DUP collected at 10:18. 1 person on beach.
REF-1	W2 W3	05/13/22	5:50	5:55	20.0 0.2	0:14	Sunny, Ignt breeze Sunny, Calm	S	12 15	3.4	Some sea foam bubbles	0	0		0	6:00	18.5	33.59	7.85	7.68	
Guest Dock	W3	05/20/22	6:04	6:05	6.0 0.2	0:14	Overcast, Breezy	s	2 5	3.1	No debris light wind	2		~20	0	6:10	18.0	33.64	7.91	7.81	Sample collected in marina/harbor, number of vessels is approximate.
Kona Kai	W3	05/20/22	6:13	6:15	0.3 0.0	0:14	Overcast, Breezy	S	2 3	0.3	Slight texture	0	0		0	6:20	17.9	33.62	7.94	6.97	Sample collected in marina/harbor, number of vessels is approximate.
MC-1 Fuel Pier	W3 W3	05/20/22 05/20/22	6:30	6:30	5.1 0.0 4.2 -0.4	0:14	Overcast, Breezy Overcast, Breezy	S	5 8	3.4	Slight texture Slight texture	0	0		0	6:32 6:50	18.2	33.72 33.73	7.97 7.97	8.24 8.06	
MC-2	W3	05/20/22	6:38	6:40	4.2 -0.4	0:14	Overcast, Breezy Overcast, Breezy	s	5 7	3.4	Slight texture Moderate texture	0	0	-	0	6:42	18.3	33.73	7.97	8.30	· .
OF-3	W3	05/20/22	6:55	6:55	1.6 -0.5	0:14	Overcast, Breezy	s	1 2	1.6	Clear. Some surface debris.	0	0		0	7:00	18.5	33.75	7.97	7.93	Sample collected in marina/harbor, number of vessels is approximate. OF-3-W3-DUP collected at 7:00
OF-2	W3	05/20/22	7:15	7:15	0.3 -0.7	0:14	Overcast, Breezy	s	2 4	0.3	Bubbles from discharging outfall, some sheen	1	1	0	1	7:30	18.0	31.67	7.93	7.57	OF discharge sample also collected (7:20). WQ: temp- 17.5, sal: 0.75, pH- 8.45, DO- 9.03
Bessemer Street	W3	05/20/22	7:40	7:40	1.0 -0.8	0:14	Overcast, Breezy	s	7 8	1	Some foam on beach along water	0	2	0	1	7:45	18.1	33.66	7.98	8.16	A contractive second and second becomes addition and all second and
OF-1	W3	05/20/22	7:50	7:50	0.3 -0.9	0:14	Overcast, Breezy	S	5 7	0.3	Some light foam on beach	1	0		0	7:55	18.0	33.70	7.97	7.82	
A1-1 A1-2	W3 W3	05/20/22 05/20/22	8:00 8:10	8:00 8:10	3.3 -0.9 4.5 -0.9	0:14	Overcast, Breezy	S	10 12 7 8	2.75	Mild chop Mild chop	0	0	2 2	0	8:03 8:13	18.2 18.1	33.76 33.77	8.00 8.00	8.18 8.18	2 vessels arrived ~0700 in anchorage
A1-2 A1-3	W3 W3	05/20/22 05/20/22	8:10 8:15	8:10 8:15	4.5 -0.9 4.5 -0.8	0:14	Overcast, Breezy Overcast, Breezy	S S	7 8	2.75	Mild chop Mild chop	0	1	2	0	8:13 8:20	18.1	33.77	8.00	8.18	1 person on boat
	w3	05/20/22	8:25	8:25	0.6 -0.8	0:14	Overcast, Breezy		5 6	0.6	Some floating eelgrass, kelp in water along beach, see Rolf's photo			0	,	8:30	18.0	33.77	7 97	7.95	Madacata dahsis in water selven filolo strands enlarges
North Kellogg Kellogg Beach	W3 W3	05/20/22	8:25	8:25 8:35	0.6 -0.8	0:14	Overcast, Breezy Overcast, Breezy	S	8 10	0.6	along beach, see Roll's photo Choppy	0	1		1	8:30	18.0	33.77	7.97	7.95	Moderate debris in water column (kelp strands, eelgrass) Some debris. Small waves on beach
REF-1	WKD2	05/21/22	6:12	6:15	19.6 1.1	1:23	Cloudy	s	3 5	2.6	Light chop, bubbles on surface	0	0		0	6:20	18.2	33.57	7.94	7.79	2 passing boats
A1-1	R1-WKD2	05/21/22	6:34	6:35	3.9 0.8	1:23	Cloudy, Breezy	S	4 4	2.4	Light ripples	0	0		0	6:40	18.1	33.67	7.99	8.13	
A1-2	R1-WKD2	05/21/22	6:43	6:45	4.8 0.7	1:23	Cloudy, Breezy	S	3 4	2.1	Light surface waves, no debris	0	0		0	6:46	18.1	33.69	7.99 7.99	8.05	·
A1-3	R1-WKD2	05/21/22	6:50	6:50	5.2 0.6	1:23	Cloudy, Breezy		3 4	2.4	Light wind chop	4	- 0	15	U	6:55	18.2	33.69		8.05	OFFINE A MINE AND A MI
OF-2	WKD2 R2-WKD2	05/21/22 05/21/22	7:00 7:35	7:00 7:35	1.0 0.4 3.9 0.1	1:23	Cloudy, Breezy Cloudy, Breezy	S	2 3 4 5	2.4	Bubbles on surface Light ripples	0	2	15	0	7:00 7:36	18.1 18.1	33.59 33.72	7.96 8.07	7.52 8.05	OF DW Flow = 2 gal/min; DW flow sample collected at 0710, Temp: 17.3, Salinity: 0.84, pH: 8.71, DO: 9.58 2 paddle boarders, 1 dog on paddle board
A1-2	R2-WKD2	05/21/22	7:50	7:50	4.3 -0.2	1:23	Cloudy, Breezy	s	4 5	2.9	Light chop, no debris	0	1		0	7:54	18.1	33.72	8.00	8.20	z padose boarders, 1 doğ on paddie board DUP collected at 07:51; 1 person topside
A1-3	R2-WKD2	05/21/22	8:00	8:00	4.9 -0.3	1:23	Cloudy, Breezy	s	3 4	2.4	Light chop, no debris	1	1	15	0	8:05	18.2	33.73	7.99	7.98	1 person topside, 1 gull
A1-1	R3-WKD2	05/21/22	8:35	8:35	3.5 -0.4	1:23	Cloudy, Breezy	s	3 5	2.5	Light chop, no debris	0			0	8:38	18.2	33.74	8.04	8.23	

Station Identification	Further Identification	Survey Date	Time on Station	FIB Sample Time	Wate Depth (Time of Slack High Tide	Weather Conditions	Wind Direction	Wind Speed Minimum (mph)	Wind Speed Maximum (mph)	Water Visibility (m)	Surface Water Conditions	Number of Birds	Numbi of Peop	Number er of ole Vessels	Number of Dogs	Water Quality Time of Measurement	Water Quality - Temperature (-C)	Water Quality - Salinity (ppt)	Water Quality - pH	Water Quality - DO (mg/L)	Other Notes
A1-2	R3-WKD2	05/21/22	8:45	8:45	4.6	-0.5	1:23	Cloudy, Breezy	S	3	4	2.7	Light chop, no debris	0	0	15	0	8:47	18.2	33.74	8.02	8.24	
A1-3	R3-WKD2	05/21/22	8:50	8:50	4.7	-0.5	1:23	Cloudy, Breezy	S	4	5	2.7	Light chop, no debris	0	3	15	0	8:53	18.2	33.74	8.00	8.04	3 people topside
REF-1	W4	05/23/22	8:00	8:00	20.8	2.0	4:16	Cloudy, Breezy	S, SW	3	3	3.1	Slight texture	0	0	2	0	8:04	18.4	33.46	7.95	7.66	2 passing boats
Guest Dock	W4	05/23/22	8:10	8:10	6.6	2.0	4:16	Cloudy	S, SW	0	1	4	Calm	0	1	~20	0	8:15	18.6	33.59	7.91	7.22	Sample collected in marina/harbor, number of vessels is approximate.
Kona Kai	W4	05/23/22	8:20	8:20	0.3	1.9	4:16	Cloudy, calm	S, SW	1	1	0.3	light ripples	0	2	~20	0	8:21	18.6	33.62	7.91	7.18	Sample collected in marina/harbor, number of vessels is approximate. 1 passing vessel
MC-1	W4	05/23/22	8:27	8:30	5.5	1.8	4:16	Cloudy, calm	S, SW	1	1	1.9	light ripples	0	1	0	0	8:31	18.7	33.68	7.97	7.99	1 strand of kelp on surface
MC-2	W4	05/23/22	8:35	8:35	5.3	1.6	4:16	Cloudy, Breezy	S, SW	1	2	3.1	Light ripples	0	0	0	0	8:37	18.9	33.70	7.96	7.86	
Fuel Pier	W4	05/23/22	8:45	8:45	4.5	1.2	4:16	Cloudy, calm	S. SW	0	1	2.3	Sheen, some debris including fish waste	0	1	6	0	8:46	18.9	33.70	7.94	7.54	some debris including fish waste.
OF-3	W4	05/23/22	8:50	8:50	2.0	1.0	4:16	Cloudy, calm	S. SW	0	1	2.1	Calm	0	1	~20	0	8:51	19.0	33.71	7.93	7.25	Sample collected in marina/harbor, number of vessels is approximate.
OF-2	W4	05/23/22	9:05	9:05	1.0	0.8	4:16	Cloudy, Breezy	S, SW	1	2	1	Bubbles from discharge	0	4	0	2	9:09	18.8	32.70	7.93	6.77	OF 2 flowing at ~4 gpm. OF2- DW -5: temp-17.8, sal- 0.61, ph-8.76, DO- 9.49. Sample collected at 0915
Bessemer Street	W4	05/23/22	9:20	9:20	0.3	0.4	4:16	Cloudy, Calm	S, SW	2	3	0.3	light chop	1	10	0	3	9:25	18.7	33.67	7.93	7.29	
OF-1	W4	05/23/22	9:30	9:30	0.3	0.3	4:16	Cloudy, Breezy	S, SW	1	2	0.3	light wind	0	1	0	1	9:32	18.7	33.65	7.97	7.80	Outfall actively discharging (~1 gpm). From discharge: Temp- 17.9, sal-0.73, ph- 8.43, DO- 8.87. Sample collected at 0935.
A1-1	W4	05/23/22	9:45	9:45	3.6	0.2	4:16	Cloudy, Breezy	s, sw	2	3	2	light chop	0	4	6	2	9:50	18.8	33.72	7.97	7.65	6 vessels remaining in anchorage. One leaving at 0947, 2 others preparing to leave. 1 boat ~40 ft from sampling location. 11 counted at 0830 before sampling. DUP collected at 0946.
A1-2	W4	05/23/22	9:55	9:55	4.8	0.2	4:16	Cloudy	S, SW	1	3	2.7	light ripples	0	2	3	1	10:00	18.8	33.73	7.99	7.99	3 vessels in anchorage. 3 others recently departed.
A1-3	W4	05/23/22	10:00	10:00	4.9	0.2	4:16	Cloudy	S, SW	2	3	2.5	Light chop	0	2	3	0	10:03	18.9	33.74	7.99	7.91	3 vessels in anchorage, none in vicinity during sampling
North Kellogg	W4	05/23/22	10:10	10:10	0.3	0.1	4:16	Cloudy, Breezy	s, sw	1	3	0.3	Clear, calm	0	4	1	0	10:12	18.8	33.76	7.97	7.80	1 kayak and 4 people on beach. 4 vessels anchored at moorings nearby, ~150 yds south. See photo. Appeared to have re- anchored form La playa
Kellogg Beach	W4	05/23/22	10:20	10:20	0.3	0.1	4:16	Cloudy, Breezy	S, SW	2	3	0.3	light chop	1	4	0	2	10:22	19.2	33.80	7.98	8.05	One swimmer, 2 dogs, 4 people and one gull observed on beach

Notes: A1 = A-1 Anchorarge; D0 = dissolved oxygen; DW = dry weather flow (discharge observed from outfall); gpm = gallons per minute; MC = main channel; mg(l = milligrams per liter; MA = not applicable; NR = not recorded; NW = northwest; OF = Outfall; ppt = parts per thousand; REF = reference; RW = receiving water; S = south; SW = southwest; W = week #; WXD = weeken; WXD = water quality

	SIYB Bacteria Special Study 2022- Field Water Quality Data Summary: Dry Weather Flow and Receiving Water											
Sample Date	Station Identification	FIB Sample Time	. ".	Water Quality - Temperature (°C)	Water Quality - Salinity (ppt)	Water Quality - pH	Water Quality - DO (mg/L)	Estimated Flow (gpm)	Notes			
5/6/2022	OF-2-W1	NA	Discharge	NA	1.49	NA	NA	NR	No discharge FIB sample collected, salinity measurement only.			
5/7/2022	OF-2-DW1-WKD1	7:20	Discharge	17.7	3.28	8.48	9.04	2	Discharge FIB sample.			
5/7/2022	OF-2-WKD1	NA	RW	19.1	33.8	8.02	7.45	NA	No receiving water FIB sample collected, WQ only.			
5/10/2022	OF-2-DW2-SH	9:45	Discharge	17.3	0.68	8.81	9.47	2	Discharge FIB sample.			
5/10/2022	OF-2-SH	NA	RW	19.4	34.44	8.05	6.87	NA	No receiving water FIB sample collected, WQ only.			
									No discharge FIB sample collected, outfall inundated with bay			
5/13/2022	OF-2-W2	9:00	RW	17.8	32.76	8.02	6.15	NA	water due to high tide.			
5/20/2022	OF-2-DW3-W3	7:20	Discharge	17.5	0.75	8.45	9.03	NR	Discharge FIB sample.			
5/20/2022	OF-2-W3	7:15	RW	18.0	31.67	7.93	7.57	NA	Receiving water FIB sample.			
									Discharge FIB sample. Sample incorrectly labelled "DW3", should			
5/21/2022	OF-2-DW3-WKD2	7:10	Discharge	17.3	0.84	8.71	9.58	2	be "DW4".			
5/21/2022	OF-2-WKD2	7:00	RW	18.1	33.59	7.96	7.52	NA	Receiving water FIB sample.			
5/23/2022	OF-2-DW5-W4	9:15	Discharge	17.8	0.61	8.76	9.49	4	Discharge FIB sample.			
5/23/2022	OF-2-W4	9:05	RW	18.8	32.7	7.93	6.77	NA	Receiving water FIB sample.			
5/23/2022	OF-1-DW1-W4	9:35	Discharge	17.9	0.73	8.43	8.87	1	Discharge FIB sample.			
5/23/2022	OF-1-W4	9:30	RW	18.7	33.65	7.97	7.8	NA	Receiving water FIB sample.			

Notes: DD = dissolved oxygen; DW = dry weather flow (discharge observed from outfall); FIB = fecal indictor bacteria; gpm = gallons per minute; mg/L = milligrams per liter; NA = not applocable; NR = not recorded; OF = Outfall; ppt = parts per thousand; RW = receiving water; WQ = water quality

APPENDIX C MICROBIOLOGY LABORATORY REPORTS



13 May 2022

Wood Environment & Infrastructure Solutions, Inc.

Attn: Kate Buckley 9177 Sky Park Court San Diego, CA 92123

Project: POSD-Bacteria Shelter Island San Diego Bay/POSD - SIYB Bacteria Special Study/Project:2015100116/

EMA Log #: 22E0190

Org:3151/GL:573000

Enclosed are the results of analyses for samples received by the laboratory on 05/06/22 09:45. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. Environmental Laboratory Network, Inc. certifies that this data is in compliance both technically and for completeness.

Jenny Douglas

President/CEO

Environmental Laboratory Network, Inc.

dba EnviroMatrix Analytical

CA ELAP Certification #: 2564

Project Name: POSD-Bacteria Shelter Island San Diego Bay

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MC-1-W1	22E0190-01	Seawater	05/06/22 06:35	05/06/22 09:45
MC-2-W1	22E0190-01	Seawater	05/06/22 06:45	05/06/22 09:45
OF-1-W1			05/06/22 07:50	05/06/22 09:45
	22E0190-03	Seawater		
OF-2-W1	22E0190-04	Seawater	05/06/22 07:20	05/06/22 09:45
OF-3-W1	22E0190-05	Seawater	05/06/22 07:00	05/06/22 09:45
FP-W1	22E0190-06	Seawater	05/06/22 06:55	05/06/22 09:45
GD-W1	22E0190-07	Seawater	05/06/22 06:00	05/06/22 09:45
BS-W1	22E0190-08	Seawater	05/06/22 07:40	05/06/22 09:45
KK-W1	22E0190-09	Seawater	05/06/22 06:10	05/06/22 09:45
NK-W1	22E0190-10	Seawater	05/06/22 08:20	05/06/22 09:45
KB-W1	22E0190-11	Seawater	05/06/22 08:30	05/06/22 09:45
REF-1-W1	22E0190-12	Seawater	05/06/22 06:25	05/06/22 09:45
A1-1-W1	22E0190-13	Seawater	05/06/22 08:00	05/06/22 09:45
A1-2-W1	22E0190-14	Seawater	05/06/22 08:05	05/06/22 09:45
A1-3-W1	22E0190-15	Seawater	05/06/22 08:10	05/06/22 09:45
FB-1-W1	22E0190-16	DI Water	05/06/22 08:45	05/06/22 09:45
BS-DUP-W1	22E0190-17	Seawater	05/06/22 07:41	05/06/22 09:45

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

			Reporti	ng				Sample Prepared		
Analyte	Result	MDL	Limit		Dilution	Analyst	Batch	Sample Analyzed	Method	Notes
MC-1-W1 (22E0190-01) Seawater	Sampled: 05/0	6/22 06:35	Receive	d• 05/06/22 (19-45					
·	41	10				00	2050066	05/06/20 12 00	G) (0222	
Total Coliforms	41	10	10	MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	10	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	ND	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
MC-2-W1 (22E0190-02) Seawater	Sampled: 05/0	6/22 06:45	Receive	d: 05/06/22 (9:45					
Total Coliforms	52	10	10	MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	ND	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
OF-1-W1 (22E0190-03) Seawater	Sampled: 05/00	5/22 07:50	Received	1: 05/06/22 0	9:45					
Total Coliforms	426	10	10	MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	ND	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
OF-2-W1 (22E0190-04) Seawater	Sampled: 05/00	5/22 07:20	Received	1: 05/06/22 0	9:45					
Total Coliforms	11200	10	10	MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	3280	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	3440	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
OF-3-W1 (22E0190-05) Seawater	Sampled: 05/00	5/22 07:00	Received	1: 05/06/22 0	9:45					
Total Coliforms	1080	10	10	MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	ND	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
FP-W1 (22E0190-06) Seawater S	ampled: 05/06/2	2 06:55 R	eceived: (05/06/22 09:4	45					
Total Coliforms	211	10		MPN/100 ml	10	CC	2050966	05/06/22 13:00	SM9223	
			.0		10		_300,00	05/07/22 13:00	51.17.223	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reporti Limit		Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
FP-W1 (22E0190-06) Seawater	Sampled: 05/06/2	2 06:55	Received: (05/06/22 09·4	15					
E. Coli	109	10		MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
Enterococcus	ND	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
GD-W1 (22E0190-07) Seawater	Sampled: 05/06/2	22 06:00	Received:	05/06/22 09:	45					
Total Coliforms	97	10		MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	10	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	ND	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
BS-W1 (22E0190-08) Seawater	Sampled: 05/06/2	2 07:40	Received: (05/06/22 09:4	15					
Total Coliforms	10	10	10	MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	10	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
KK-W1 (22E0190-09) Seawater	Sampled: 05/06/2	22 06:10	Received:	05/06/22 09:	45					
Total Coliforms	85	10		MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	ND	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
NK-W1 (22E0190-10) Seawater	Sampled: 05/06/2	22 08:20	Received:	05/06/22 09:	45					
Total Coliforms	110	10		MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	ND	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
KB-W1 (22E0190-11) Seawater	Sampled: 05/06/2	22 08:30	Received:	05/06/22 09:4	45					
Total Coliforms	75	10		MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reporting Limit	g Units	Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
	resur		2,,,,,	Cinto	2 iiuiioii	1 mary st	Duten	Sumpre i many Lea	111041104	11000
KB-W1 (22E0190-11) Seawater S	ampled: 05/06/2	22 08:30 1	Received: 0	5/06/22 09:4	45					
Enterococcus	ND	10	10	MPN/10 0 ml	10	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
REF-1-W1 (22E0190-12) Seawater	Sampled: 05/	06/22 06:2	5 Received	1: 05/06/22	09:45					
Total Coliforms	20	10	10	MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	ND	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
A1-1-W1 (22E0190-13) Seawater	Sampled: 05/06	/22 08:00	Received:	05/06/22 09	2:45					
Total Coliforms	41	10	10	MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	ND	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
A1-2-W1 (22E0190-14) Seawater	Sampled: 05/06	/22 08:05	Received:	05/06/22 09	0:45					
Total Coliforms	63	10	10	MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	10	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	ND	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
A1-3-W1 (22E0190-15) Seawater	Sampled: 05/06	/22 08:10	Received:	05/06/22 09	0:45					
Total Coliforms	41	10		MPN/100 ml	10	СС	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	ND	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	
FB-1-W1 (22E0190-16) DI Water	Sampled: 05/00	5/22 08:45	Received:	05/06/22 09	9:45					
Total Coliforms	ND	10	10	MPN/10 0 ml		CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	ND	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reporti Limit		Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
BS-DUP-W1 (22E0190-17) Seawater	Sampled: 0	5/06/22 07:41	Recei	ived: 05/06/2	2 09:45					
Total Coliforms	199	10	10	MPN/100 ml	10	CC	2050966	05/06/22 13:00 05/07/22 13:00	SM9223	
E. Coli	31	10	10	"	"	CC	"	05/06/22 13:00 05/07/22 13:00	"	
Enterococcus	10	10	10	"	"	CC	2050754	05/06/22 13:00 05/07/22 13:00	Idexx	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods - Quality Control

Analyte	Result	MDL	Reporting Limit	Units	Analyst	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2050754												
Blank (2050754-BLK1)					Prepared:	05/06/22	Analyzed: (05/07/22				
Enterococcus	ND	1	1 1	MPN/100 n	nl CC							
Batch 2050966												
Blank (2050966-BLK1)					Prepared:	05/06/22	Analyzed: (05/07/22				
Total Coliforms	ND	1	1 1	MPN/100 n	nl CC							
E. Coli	ND	1	1	"	CC							

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)

NR Not Reported

dry Sample results reported on a dry weight basis (if indicated in units column)

RPD Relative Percent Difference

MDL Method detection limit (indicated per client's request)

CHAIN-OF-CUSTODY RECORD

- EnviroMatrix (A Analytical, Inc.

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

EMA LOG #:					9590 C	ıesapeak	Dr, Sui	e 5, San Diego,	9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763	560-771	' - Fax (858) 560-7763	
Client: Wood PLC									Requested Analysis	alveie		
Attn: Kate Buckley, kate.buckley@woodplc.com					-							
Samplers(s): Wood												
Address: 9177 Sky Park Ct, San Diego, CA 92123												
					4.1.							
Phone: 760-420-5769	Fax:				olore							
Email: kate.buckley@woodplc.com												
Billing Address: 9177 Sky Park Ct, San Diego, CA 92123												
Project ID: POSD - SIYB Bacteria Special Study					COL							
Please include the following information on invoices: 1) Project #: 2015 100	Project #:	20151	00116) Isto							
(2) PO #: N/A (3) Org: 3151 (4) GL: 573000						6						
					, m , 2000							
	Sample	Sample	Sample	Container	notil							
ID# Client Sample ID	Date	Time	Matrix	# / Type								
1 MC-1-W1	5/6/22	0635	sea water	2 / Bact	×					L		
2 MC-2-W1		2490	064 5 sea water	2 / Bact	×							Ι
3 OF-1-W1		0750	0750 sea water	2 / Bact	×							T
4 OF-2-W1		0750	D 3 20 sea water	2 / Bact	×					L		Ι
5 OF-3-W1		OQEO	0700 sea water	2 / Bact	×							Ι
6 FP-W1		0655	sea water	2 / Bact	×					L		
7 GD-W1		00%	O600 sea water	2 / Bact	×							
8 BS-W1		0740	0740 sea water	2 / Bact	×							Ι
9 KK-WI		0190	0 60 sea water	2 / Bact	×					L		
10 NK-W1	>	280 sez	sea water	2 / Bact	×					\downarrow		Ι
Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water	W = Storm Wate	ı				REL	RELINQUISHED BY	IED BY	DATE/TIME	+	RECEIVED BY	T
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid	0 = Oil, L = Liq	pin			Signature 🗸		1	11111	SLAGES.	T	Simature /	T
Shipped By: a Courier a UPS a FedEx a USPS X Client Drop Off a Other	Off 🗆 Other				Print	18	2	1111	3 0 1	<u> </u>	Print Print In A X	T
¹Turn-Around-Time: □ Same Day □ 1 day □ 2 day □ 3 day □ 4 day	ıy □5 day X STD (7 day)	TD (7 day)			Company:	13			T		Company:	P-Colege to
Reporting Requirements: Fax X PDF X Excel	DF 🗆 Hard Cop	y o EDT			Signature					Sig	Signature	Τ

COC/Labels Agree; Yes No N/A

NOTE: Please Fravide SWAMP EDD. Please report true numeric results between 10-2,400,000 MPN/100mL for Total Coliform and Enterococcus using the Colliert and Enterolert methods, respectively, for each For each sample, conduct a 3x dilution for reportable MPN (MDL 10 - 2.4 mil).

Company: Signature

Print

Company:

Print

Sample Disposal: X By Laboratory a Return to Client: P/U or Delivery a Archive

Sample Integrity

Signature

Containers Properly Preseved: Kes-No N/A

Temp @ Receipt:

Custody Seals Intact: Yes No N/A Correct Containers Yes No N/A

Print

Print

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

CHAIN-OF-CUSTODY RECORD

EMA LOG#:

- EnviroMatrix (EM) Analytical, Inc.

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

Client: Wood PLC										Reques	Requested Analysis	Vsis				
Attn: Kate Buckley, kate buckley@woodplc.com								-								
Samplers(s): Wood																
Address: 9177 Sky Park Ct, San Diego, CA 92123																
					μк											
Phone: 760-420-5769	Fax:				alore			······································								
Email: kate.buckley@woodplc.com																
Billing Address: 9177 Sky Park Ct, San Diego, CA 92123																
Project ID: POSD - SIYB Bacteria Special Study					(Col											
Please include the following information on invoices: 1) Project #: 2015 DO (2) PO #: N/A (3) Org: 3151 (4) GL: 573000	Project#: 2	<u>ाट</u> ा	9110		itatoT <u>Z</u>											
D# (Vicant Compala ID)	Sample	Sample	Sample	Container	olifor oorstn											
KB-W]	Eller 7	003 N	Maunx ses motor	# / 1ype		1	-	$\frac{1}{1}$								
2 REF-1-W1	-	777	soo motor	2 / Doot	┿	1	lacksquare	+				1				
3 AI-1-WI			sea water	2 / Bact	+	1	Ţ	+						1	-	
4 A1-2-WI	and Millians	2002	con motor	2 / Doot	┿	1	Ŧ	$\frac{1}{1}$		1				1	1	
Г	a Doman	2000	sea water	2 / Bact	+	1	_	-	1		$\frac{1}{1}$	1		1	-	1
6 FB-1-W1	ou institut		sea water	2 / Bact	┿		+	+	l					1	$\frac{1}{1}$	_
7 BS -DUP-W1	Z		sea water	2/Bact	┿		-	-		+				1		\pm
8		}			╀		-	-							$\frac{1}{1}$	1
6							-									
10						L		-			1				$\frac{1}{1}$	1
Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water	W = Storm Water					REL	RELINQUISHED BY	IED BY		YO	DATE/TIME			RECEIVED BY		
WW = Wastewater, S = Soil, SED ≈ Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid	O = Oil, L = Liqu	id			Signature		WAS BOULD	18.11			P	Signature		-	1	
Shipped By: a Courier a UPS a FedEx a USPS X Client Drop Off	off 🗆 Other				Print	727	12 Z	11030		* \ \	4	Print		7	K	
¹Turn-Around-Time: □ Same Day □ 1 day □ 2 day □ 3 day □ 4 day	y □5day XST	X STD (7 day)			Company:		T 8 7	1		1	2	LA.	1/2		١	
'Reporting Requirements: Fax X PDF X Excel Geotracker/EDF Hard Copy	OF Hard Copy	□ EDT			Signature							Signature	ture			İ
'Sample Disposal: X By Laboratory a 2Return to Client: P/U or Delivery	ivery Archive				Print					T		Print				
Sample Integrity					Company					1		Company	oanv:			
Correct Containers Yes No N/A	Containers Properly Preseved:	erly Preseve	d: Yes No N/A	N/A	Signature							Signature	ture			
Custody Seats Intact: Yes No N/A	Temp @ Receipt:	\ \ \			Print					T -		Print				
COC/Labels Agree: Yes No N/A Sampled By: Chem EMA Aut	Sampled By: Ç	IEM EMA		다	Company:							Company:	oany:			
and L: Piease Provide SWAIMP EDD. Please report frue numeri	results between	10-2,400		100mL for 7	otal Colif	orm and E	nterococo	us using t	e Colilert	MPN/100mL for Total Coliform and Enterococcus using the Colilert and Enterolert methods, respectively, for each	t methods,	espectively,	, for each.			
For each sample, conduct a 3x dilution for reportable MPN (MDL 10 - 2.4 mil).	MDL 10 - 2.4	mil).														

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.



11 May 2022

Wood Environment & Infrastructure Solutions, Inc.

Attn: Kate Buckley 9177 Sky Park Court San Diego, CA 92123

Project: POSD-Bacteria Shelter Island San Diego Bay

Enclosed are the results of analyses for samples received by the laboratory on 05/07/22 10:15. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. Environmental Laboratory Network, Inc. certifies that this data is in compliance both technically and for completeness.

EMA Log #: 22E0218

Jenny Douglas

President/CEO

Environmental Laboratory Network, Inc.

dba EnviroMatrix Analytical

CA ELAP Certification #: 2564

Project Name: POSD-Bacteria Shelter Island San Diego Bay

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
REF-1-WKD1	22E0218-01	Seawater	05/07/22 06:25	05/07/22 10:15
A1-1-R1-WKD1	22E0218-02	Seawater	05/07/22 06:40	05/07/22 10:15
A1-2-R1-WKD1	22E0218-03	Seawater	05/07/22 06:50	05/07/22 10:15
A1-3-R1-WKD1	22E0218-04	Seawater	05/07/22 06:55	05/07/22 10:15
A1-1-R2-WKD1	22E0218-05	Seawater	05/07/22 07:40	05/07/22 10:15
A1-2-R2-WKD1	22E0218-06	Seawater	05/07/22 07:45	05/07/22 10:15
A1-3-R2-WKD1	22E0218-07	Seawater	05/07/22 07:55	05/07/22 10:15
A1-1-R3-WKD1	22E0218-08	Seawater	05/07/22 08:40	05/07/22 10:15
A1-2-R3-WKD1	22E0218-09	Seawater	05/07/22 08:50	05/07/22 10:15
A1-3-R3-WKD1	22E0218-10	Seawater	05/07/22 08:55	05/07/22 10:15
FB-1-WKD1	22E0218-11	DI Water	05/07/22 09:15	05/07/22 10:15
A1-3-R1-DUP-WKD1	22E0218-12	Seawater	05/07/22 06:56	05/07/22 10:15
OF-2-DW1	22E0218-13	FreshWater	05/07/22 07:20	05/07/22 10:15

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	R MDL	eportin Limit		Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
	resuit	MIDL	Limit	Cints	Dilution	rmaryst	Datell	Sample Maryzed	Michiga	110105
REF-1-WKD1 (22E0218-01) Seawater	Sampled:	05/07/22 06:25	Rece	eived: 05/07/	/22 10:15					
Total Coliforms	ND	10	10	MPN/10 0 ml	10	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/07/22 14:00 05/08/22 14:00	"	
Enterococcus	ND	10	10	"	"	AL	2050961	05/07/22 14:00 05/08/22 14:00	Idexx	
A1-1-R1-WKD1 (22E0218-02) Seawater	r Sample	d: 05/07/22 06:4	l0 Re	ceived: 05/0	7/22 10:1:	5				
Total Coliforms	86	10	10	MPN/100 ml	10	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/07/22 14:00 05/08/22 14:00	"	
Enterococcus	ND	10	10	"	"	AL	2050961	05/07/22 14:00 05/08/22 14:00	Idexx	
A1-2-R1-WKD1 (22E0218-03) Seawater	r Sample	d: 05/07/22 06:5	50 Re	eceived: 05/0	7/22 10:1:	5				
Total Coliforms	86	10	10	MPN/100 ml	10	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/07/22 14:00 05/08/22 14:00	"	
Enterococcus	ND	10	10	"	"	AL	2050961	05/07/22 14:00 05/08/22 14:00	Idexx	
A1-3-R1-WKD1 (22E0218-04) Seawater	r Sample	d: 05/07/22 06:5	55 Re	ceived: 05/0	7/22 10:1:	5				
Total Coliforms	41	10		MPN/100 ml	10	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/07/22 14:00 05/08/22 14:00	"	
Enterococcus	ND	10	10	"	"	AL	2050961	05/07/22 14:00 05/08/22 14:00	Idexx	
A1-1-R2-WKD1 (22E0218-05) Seawater	r Sample	d: 05/07/22 07:4	l0 Re	eceived: 05/0	7/22 10:1:	5				
Total Coliforms	63	10		MPN/100 ml	10	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	
E. Coli	10	10	10	"	"	AL	"	05/07/22 14:00 05/08/22 14:00	"	
Enterococcus	20	10	10	"	"	AL	2050961	05/07/22 14:00 05/08/22 14:00	Idexx	
A1-2-R2-WKD1 (22E0218-06) Seawater	r Sample	d: 05/07/22 07:4	5 Re	eceived: 05/0	07/22 10:1:	5				
Total Coliforms	20	10	10	MPN/100 ml	10	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
A1-2-R2-WKD1 (22E0218-06) Seawa	ater Sample	d: 05/07/22	07:45 Red	ceived: 05/0	07/22 10:1:	5				
E. Coli	10	10		MPN/100 ml	10	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	
Enterococcus	ND	10	10	"	"	AL	2050961	05/07/22 14:00 05/08/22 14:00	Idexx	
A1-3-R2-WKD1 (22E0218-07) Seawa	ater Sample	d: 05/07/22	07:55 Rec	ceived: 05/0	07/22 10:1:	5				
Total Coliforms	41	10	10	MPN/100 m1	10	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/07/22 14:00 05/08/22 14:00	"	
Enterococcus	ND	10	10	"	"	AL	2050961	05/07/22 14:00 05/08/22 14:00	Idexx	
A1-1-R3-WKD1 (22E0218-08) Seawa	ater Sample	d: 05/07/22	08:40 Red	ceived: 05/0	07/22 10:1:	5				
Total Coliforms	201	10	10	MPN/100 ml	10	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/07/22 14:00 05/08/22 14:00	"	
Enterococcus	ND	10	10	"	"	AL	2050961	05/07/22 14:00 05/08/22 14:00	Idexx	
A1-2-R3-WKD1 (22E0218-09) Seawa	ater Sample	d: 05/07/22	08:50 Rec	ceived: 05/0	07/22 10:1:	5				
Total Coliforms	201	10		MPN/100 ml	10	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/07/22 14:00 05/08/22 14:00	"	
Enterococcus	ND	10	10	"	"	AL	2050961	05/07/22 14:00 05/08/22 14:00	Idexx	
A1-3-R3-WKD1 (22E0218-10) Seawa	ater Sample	d: 05/07/22	08:55 Rec	ceived: 05/0	07/22 10:1:	5				
Total Coliforms	74	10	10	MPN/100 ml	10	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	
E. Coli	41	10	10	"	"	AL	"	05/07/22 14:00 05/08/22 14:00	"	
Enterococcus	ND	10	10	"	"	AL	2050961	05/07/22 14:00 05/08/22 14:00	Idexx	
FB-1-WKD1 (22E0218-11) DI Water	Sampled: 0	5/07/22 09:	15 Receiv	ed: 05/07/2	2 10:15					
Total Coliforms	ND	10	10	MPN/10 0 ml	10	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	
E. Coli	ND	10	10	"	,,	AL	"	05/07/22 14:00	"	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reporting Limit	g Units	Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
FB-1-WKD1 (22E0218-11) DI Water	Sampled: 0	5/07/22 09:1:	5 Receive	ed: 05/07/2	2 10:15					
Enterococcus	ND	10	10	MPN/10 0 ml	10	AL	2050961	05/07/22 14:00 05/08/22 14:00	Idexx	
A1-3-R1-DUP-WKD1 (22E0218-12) So	eawater Sa	mpled: 05/0°	7/22 06:56	Received	1: 05/07/22	2 10:15				
Total Coliforms	120	10	10 M	MPN/100 ml	10	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	
E. Coli	41	10	10	"	"	AL	"	05/07/22 14:00 05/08/22 14:00	"	
Enterococcus	ND	10	10	"	"	AL	2050961	05/07/22 14:00 05/08/22 14:00	Idexx	
OF-2-DW1 (22E0218-13) FreshWater	Sampled:	05/07/22 07:2	20 Receiv	ved: 05/07/	22 10:15					
Total Coliforms	130000	100	100 M	MPN/100 ml	100	AL	2050960	05/07/22 14:00 05/08/22 14:00	SM9223	
E. Coli	2130	100	100	"	"	AL	"	05/07/22 14:00 05/08/22 14:00	"	
Enterococcus	6870	10	10	"	10	AL	2050961	05/07/22 14:00 05/08/22 14:00	Idexx	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods - Quality Control

Analyte	Result	MDL	Reporting Limit	Units	Analyst	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2050960												
Blank (2050960-BLK1)					Prepared:	05/07/22	Analyzed: (05/08/22				
Total Coliforms	ND	1	1	MPN/100 n	ıl AL							
E. Coli	ND	1	1	"	AL							
Batch 2050961												
Blank (2050961-BLK1)					Prepared:	05/07/22	Analyzed: (05/08/22				
Enterococcus	ND	1	1	MPN/100 n	ıl AL							

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)

NR Not Reported

dry Sample results reported on a dry weight basis (if indicated in units column)

RPD Relative Percent Difference

MDL Method detection limit (indicated per client's request)

Page_1_of_ $\mathcal{I}_{\mathcal{S}_{|\mathcal{I}|}}$

- EnviroMatrix CHAIN-OF-CUSTODY RECORD DECENSION RECORD

EMA LOG#:

Client: Wood PLC

(Analytical, Inc.

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

RECEIVED BY NOTE: Please Provide SWAMP EDD. Please report true numeric results between 16-2,400,000 MPN/100mL for Total Coliform and Enterooccus using the Collect and Enterolect methods, respectively, for each Company: Signature Signature Signature Print Print Print Requested Analysis 0 DATE/TIME Syon 4 RELINQUISHED BY CASO 100 □ MTF X Enterolert Enterococcus, × × × Company: Company Signature Signature × Print \underline{X} Total (Colilert) Ŧį. 'unolilo Container # / Type 2 / Bact 2 / Bact 0745 sea water 2/Bact 2 / Bact sea water 2 / Bact Please include the following information on invoices: 1) Project #: 2015/001/6, 0002B Containers Properly Preseved: Yes No N/A Sampled By:/Client EMA Autosampler 0625 sea water 0655 sea water 1740 sea water 1355 | Sea water Sample 0640 sea water D650 sea water sea water 0850 sea water Matrix Temp @ Receipt 6 6 V Sample OPRO D. A. Turn-Around-Time:

Same Day

I day

2 day

3 day

4 day

5 day

XSTD (7 day) Reporting Requirements: O Fax X PDF X Excel O Geotracker/EDF O Hard Copy O EDT WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid Sample Disposal: X By Laboratory a Return to Client: P/U or Delivery a Archive Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water 57115 Sample Shipped By: a Courier a UPS a FedEx a USPS X Client Drop Off a Other Fax: Sample Integrity Billing Address: 9177 Sky Park Ct, San Diego, CA 92123 (4) GL: 573000 Address: 9177 Sky Park Ct, San Diego, CA 92123 Attn: Kate Buckley, kate.buckley@woodplc.com Project ID: POSD - SIYB Bacteria Special Study Client Sample ID Email: kate.buckley@woodplc.com (3) Org: 3151 ustody Seals Intact: Yes No N/K Correct Containers Yes No N/A OC/Labels Agree/ Yes No N/A A1-3-R3-WKD1 AI-I-RI-WKDI A1-2-R1-WKD1 A1-3-R1-WKD1 A1-1-R2-WKD] A1-2-R2-WKD1 A1-3-R2-WKD1 A1-1-R3-WKD1 A1-2-R3-WKD1 Phone: 760-420-5769 REF-1-WKDJ Samplers(s): Wood (2) PO #: N/A # (1) 2 9 ∞ 0

For each sample, conduct a 3x dilution for reportable MPN (MDL 10 - 2.4 mil).

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

CHAIN-OF-CUSTODY RECORD 2 Sept.

EMA LOG#: Client: Wood PLC

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

Tient	Chent: Wood PLC										Ream	Requested Analysis	nolveie						
\tim: K	Atin: Kate Buckley, kate.buckley@woodplc.com					L				F				L	L		F	\downarrow	_
Sample	Samplers(s): Wood																		
Address	Address: 9177 Sky Park Ct, San Diego, CA 92123																		
						7.4	17										-		
Phone:	Phone: 760-420-5769	Fax:				~ L O. # e	stole							•					
Imail:	3mail: kate.buckley@woodplc.com						3117												
Billing	3illing Address: 9177 Sky Park Ct, San Diego, CA 92123																		
Project	Project ID: POSD - SIYB Bacteria Special Study						.177												
Please 2) PO	Please include the following information on invoices: 1) Project #: 2015100	roject#: 1	01210	_	6.000ZB	IstoT <u>}</u>	AT ITS FOR												
		Commo	Comple				nococcn												
ID#	Client Sample ID	Date	Sample Time	Sample Matrix	Container	Colif	12117												
1	FB-1-WKD1 ★	7	100 IS	90	┺	×			$oxed{\dagger}$			1			1	\downarrow	1	+	-
2	-DUP-WKD+ A1-3-RI-DUP-WKD1		0100	sea water		╄	<u> </u>			ļ	-		-			1	1	╁	
3						+-			$oxed{L}$		F	1	1			1	1	+	
4									$oxed{T}$		ļ	+	I	$\frac{1}{1}$	$\frac{1}{2}$	$\frac{1}{4}$	1	╁	-
5						L	ļ		l			1	-	+	1	1	1	+	
9										T		-					†	┿	
7							L	_	L	L	-	_		\perp	$\frac{1}{1}$	-	+	+	,
8									\perp			ļ	-		1		‡	-	
9						L	F	-		ļ		+	Ī		$\frac{1}{2}$		1	+	
10						L		ig	l		<u> </u>	†	1	+	+	1	1	+	
datrix C	datrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water	= Storm Water					REL	RELINQUISHED BY	HED BY			DATE/TIME	9		REC	RECEIVED RV	- - - - -	-	
W = W	VW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid	= Oil, L = Liqu	jq			Signature		1	nici)			1	T	Signature	Contract of the Contract of th				
hipped	hipped By: a Courier a UPS a FedEx a USPS X Client Drop Off a Other	□ Other				Print	1	3 Sell	chottle	9	η Τ	1	Ŋ	Print	125		~		
Turn-A	Turn-Around-Time: Same Day 1 day 2 day 3 day 4 day	□5 day	X STD (7 day)			Company:	ľ	ASS.	.1. 1		ľ	5/0		Company					
Reporti	Reporting Requirements: Fax X PDF X Excel	F - Hard Copy	/ □EDT			Signature					╀		Ī	Simotore	2				_
Semple	Brippe Disposal: X By Laboratory = 2Return to Client: P/U or Delivery = Archive	ery 🗆 Archive				Print					T			Print					
	Sample Integrity					Company:					T			Company					
orrect C	orrect Containers: (Yes No N/A	Containers Properly Preseved	erly Presev	ed Yes No N/A	o N/A	Signature				ļ	ig		Ī	Signature					
ustody	ustody Seals Intact. Mes No N/A	Temp @ Receipt:				Print					T			Print					
OC/Lab	OC/Labels Agree: Yes/No WA Sampled By: Client EMA Autosampler Company:	ampled By:{C	lienj EMA	Autosamp	ıler	Company	 				T			Commany					
OTE:	Please Provide SWAMP EDD. Please report true numeric	esults between	10-2,400	,000 MPN	√100mL for	lotal Coli	orm and	interococc	ausn sn:	the Collie	t and Enter	9	s respect	s. respectively for each	hoe				

For each sample, conduct a 3x dilution for reportable MPN (MDL 10 - 2.4 mil).

deionized water. MFeld blank 15

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

 $^{2}\mathbb{E}MA$ reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

81Z0377

CHAIN-OF-CUSTODY RECORD

EMA LOG#:

- EnviroMatrix (A) Analytical, Inc. -

Page_1 Nof 11/ 3 & F 3

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

Client: Wood PLC												Requested Analysis	d Analy	/Sis					
Attn: Kate Buckley, kate.buckley@woodplc.com	mc							_		-	L				-			\vdash	
Samplers(s): Wood																			
Address: 9177 Sky Park Ct, San Diego, CA 92123	123																		
							2.57												
Phone: 760-420-5769	Fax:					orole	NO.										····		
Email: kate.buckley@woodplc.com														-					
Billing Address: 9177 Sky Park Ct, San Diego, CA 92123	, CA 92123																		
Project ID: POSD - SIYB Bacteria Special Study	ıdy					CO!	711												
Please include the following information on invoices: 1) Project #: $20 \mathcal{G} $ (2) PO #: N/A (3) Org: 3151 (4) GL: 573000	invoices: 1) Proj 573000	ect #: 25	1510		116.00028) latoT <u>Y</u>	AI m for												
							10000												
ID# Client Sample ID	S	Sample Sample Date	Sample Time	Sample Matrix	Container # / Type	oliloO	Entero									·			
HB-1-SH				SCS Woten	2 / Bact	×		\vdash	L	H	-		ļ	I	1			+	I
# S-IDG				otory co	e e	Н		H	\parallel	+	1	+	#	T	+			+	1
╁		т		i i	2 / Dace	+		1		H	$\frac{\parallel}{\parallel}$		#					-	
W-7-40	2	51372	03.50	पुरु पुरु	1 Part	ブ ブ		\dashv											
4					<u> </u>													L	
C								\dashv										\vdash	
9																		-	L
7								_		\vdash					ig	L	\downarrow	╀	L
8								\vdash		╁	-				$\frac{1}{1}$		ļ	+	I
6								\vdash		\vdash			ļ		-			+	I
10								-		T	1	+	1		$\frac{1}{1}$	1	\downarrow	+	\downarrow
Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water	Groundwater, SW = S	torm Water					RE		RELINOUISHED BY	┨			DATE/TIME	1	$\frac{1}{1}$	PECETVED BY		-\	T
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid	olid, T = Tissue, O = O	il, L = Liquic				Signature	ľ				Administration Constitution of the Constitutio	- Para		Signature	1				
Shipped By: a Courier a UPS a FedEx a USPS X	X Client Drop Off Other	Other				Print	N.	1050	1	e sh		1	705	Print	18.00				
'Turn-Around-Time: Same Day 1 day 2 day 3 day 4 day	□3 day □4 day □5	□ 5 day X STD (7 day)	(7 day)			Company:] ~	00 m	1			0	6	Company	anv:				
'Reporting Requirements: D Fax X PDF X Excel D Geotracker/EDF D Hard Copy DEDT	□ Geotracker/EDF □	Hard Copy	o EDT			Signature								Signature		1000		ı	
'Sample Disposal: X By Laboratory Defum to Client: P/U or Delivery Delivery	ient: P/U or Delivery	□ Archive				Print								Print					
Sa Sa	Sample Integrity			(·		Company								Company	anv.				
Correct Containers: Yes No N/A	Cont	Containers Properly Preseved	rly Preseve	Yes No N/A	N/A	Signature		I						Siomature	ire				
Custody Seals Intact: Yes No (N/A)	Tem	Temp @ Receipt: (0 04)	10 DK	3		Print								Print					
COC/Labels Agree: fes No N/A	Sam	Sampled By/ Clien EMA Autosampler	en) EMA	Autosample	li.	Company:								Company	Jun.				
NOTE: Please Provide SWAMP EDD. Please report frue numeric results between 10.2,400,000 MPW/100mL for Total Colliform and Enterococcus using the Colli	ort true numeric resu	its between	10-2,400,0	000 MPN/	100mL for	otal Coli	orm and	Enteroc	occus usi	ng the C	olilert and	Enterolert n	ethods re	respectively for	for each			۱	Ī

For each sample, conduct a 3x dilution for reportable MPN (MDL 10 - 2.4 mil).

K Salinity = 3.3 ppt

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.



13 May 2022

Wood Environment & Infrastructure Solutions, Inc.

Attn: Kate Buckley 9177 Sky Park Court San Diego, CA 92123

Project: POSD-Bacteria Shelter Island San Diego Bay/POSD-SIYB Bacteria Special Study/Project:2015100116.0002C/

EMA Log #: 22E0316

Org:3151/GL:573000

Enclosed are the results of analyses for samples received by the laboratory on 05/10/22 11:57. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. Environmental Laboratory Network, Inc. certifies that this data is in compliance both technically and for completeness.

Jenny Douglas

President/CEO

Environmental Laboratory Network, Inc.

dba EnviroMatrix Analytical

CA ELAP Certification #: 2564

Project Name: POSD-Bacteria Shelter Island San Diego Bay

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
REF-1-SH	22E0316-01	Seawater	05/10/22 07:55	05/10/22 11:57
A1-1-R1-SH	22E0316-02	Seawater	05/10/22 08:15	05/10/22 11:57
A1-2-R1-SH	22E0316-03	Seawater	05/10/22 08:20	05/10/22 11:57
A1-3-R1-SH	22E0316-04	Seawater	05/10/22 08:30	05/10/22 11:57
A1-1-R2-SH	22E0316-05	Seawater	05/10/22 09:15	05/10/22 11:57
A1-2-R2-SH	22E0316-06	Seawater	05/10/22 09:25	05/10/22 11:57
A1-3-R2-SH	22E0316-07	Seawater	05/10/22 09:30	05/10/22 11:57
A1-1-R3-SH	22E0316-08	Seawater	05/10/22 10:15	05/10/22 11:57
A1-2-R3-SH	22E0316-09	Seawater	05/10/22 10:20	05/10/22 11:57
A1-3-R3-SH	22E0316-10	Seawater	05/10/22 10:30	05/10/22 11:57
FB-1-SH	22E0316-11	DI Water	05/10/22 11:00	05/10/22 11:57
A1-3-R1-DUP-SH	22E0316-12	Seawater	05/10/22 08:31	05/10/22 11:57
OF-2-DW2	22E0316-13	Freshwater	05/10/22 09:45	05/10/22 11:57

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reportin Limit		Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
								<u>-</u>		
REF-1-SH (22E0316-01) Seawater	Sampled: 05/1		Receive	d: 05/10/22	11:57					
Total Coliforms	31	10	10	MPN/100 ml	10	AZ	2051038	05/10/22 13:25 05/11/22 13:25	SM9223	
E. Coli	ND	10	10	"	"	AZ	"	05/10/22 13:25 05/11/22 13:25	"	
Enterococcus	ND	10	10	"	"	AL	2051037	05/10/22 13:25 05/11/22 13:25	Idexx	
A1-1-R1-SH (22E0316-02) Seawater	Sampled: 05	5/10/22 08:15	Recei	ved: 05/10/2	2 11:57					
Total Coliforms	31	10	10	MPN/100 ml	10	AZ	2051038	05/10/22 13:25 05/11/22 13:25	SM9223	
E. Coli	ND	10	10	"	"	AZ	"	05/10/22 13:25 05/11/22 13:25	"	
Enterococcus	ND	10	10	"	"	AL	2051037	05/10/22 13:25 05/11/22 13:25	Idexx	
A1-2-R1-SH (22E0316-03) Seawater	Sampled: 05	5/10/22 08:20	Receiv	ved: 05/10/2	2 11:57					
Total Coliforms	20	10	10	MPN/100 ml	10	AZ	2051038	05/10/22 13:25 05/11/22 13:25	SM9223	
E. Coli	10	10	10	"	"	AZ	"	05/10/22 13:25 05/11/22 13:25	"	
Enterococcus	ND	10	10	"	"	AL	2051037	05/10/22 13:25 05/11/22 13:25	Idexx	
A1-3-R1-SH (22E0316-04) Seawater	Sampled: 05	5/10/22 08:30	Recei	ved: 05/10/2	2 11:57					
Total Coliforms	5170	10	10	MPN/100 ml	10	AZ	2051038	05/10/22 13:25 05/11/22 13:25	SM9223	
E. Coli	ND	10	10	"	"	AZ	"	05/10/22 13:25 05/11/22 13:25	"	
Enterococcus	ND	10	10	"	"	AL	2051037	05/10/22 13:25 05/11/22 13:25	Idexx	
A1-1-R2-SH (22E0316-05) Seawater	Sampled: 05	5/10/22 09:15	Recei	ved: 05/10/2	2 11:57					
Total Coliforms	41	10	10	MPN/100 ml	10	AZ	2051038	05/10/22 13:25 05/11/22 13:25	SM9223	
E. Coli	ND	10	10	"	"	AZ	"	05/10/22 13:25 05/11/22 13:25	"	
Enterococcus	ND	10	10	"	"	AL	2051037	05/10/22 13:25 05/11/22 13:25	Idexx	
A1-2-R2-SH (22E0316-06) Seawater	Sampled: 05	5/10/22 09:25	Receiv	ved: 05/10/2	2 11:57					
Total Coliforms	85	10	10	MPN/100 ml	10	AZ	2051038	05/10/22 13:25 05/11/22 13:25	SM9223	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reporting Limit	g Units	Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
A1-2-R2-SH (22E0316-06) Seawater	Sampled: 05	5/10/22 09:25	Receive	ed: 05/10/22	11:57					
E. Coli	ND	10	10	MPN/10	10	AZ	2051038	05/10/22 13:25	SM9223	
				0 ml		AL		05/11/22 13:25		
Enterococcus	ND	10	10	"	"	AL	2051037	05/10/22 13:25 05/11/22 13:25	Idexx	
A1-3-R2-SH (22E0316-07) Seawater	Sampled: 05	5/10/22 09:30	Receive	ed: 05/10/22	11:57					
Total Coliforms	10	10	10 M	MPN/100 ml	10	AZ	2051038	05/10/22 13:25 05/11/22 13:25	SM9223	
E. Coli	ND	10	10	"	"	AZ	"	05/10/22 13:25 05/11/22 13:25	"	
Enterococcus	1150	10	10	"	"	AL	2051037	05/10/22 13:25 05/11/22 13:25	Idexx	
A1-1-R3-SH (22E0316-08) Seawater	Sampled: 05	5/10/22 10:15	Receive	ed: 05/10/22	11:57					
Total Coliforms	63	10		MPN/100 ml	10	AZ	2051038	05/10/22 13:25 05/11/22 13:25	SM9223	
E. Coli	10	10	10	"	"	AZ	"	05/10/22 13:25 05/11/22 13:25	"	
Enterococcus	10	10	10	"	"	AL	2051037	05/10/22 13:25 05/11/22 13:25	Idexx	
A1-2-R3-SH (22E0316-09) Seawater	Sampled: 05	5/10/22 10:20	Receive	ed: 05/10/22	11:57					
Total Coliforms	1010	10		MPN/100 ml	10	AZ	2051038	05/10/22 13:25 05/11/22 13:25	SM9223	
E. Coli	ND	10	10	"	"	AZ	"	05/10/22 13:25 05/11/22 13:25	"	
Enterococcus	63	10	10	"	"	AL	2051037	05/10/22 13:25 05/11/22 13:25	Idexx	
A1-3-R3-SH (22E0316-10) Seawater	Sampled: 05	5/10/22 10:30	Receive	·d· 05/10/22	11.57					
Total Coliforms	1130	10		MPN/100 ml	10	AZ	2051038	05/10/22 13:25 05/11/22 13:25	SM9223	
E. Coli	20	10	10	"	"	AZ	"	05/10/22 13:25 05/11/22 13:25	u	
Enterococcus	ND	10	10	"	"	AL	2051037	05/10/22 13:25 05/11/22 13:25	Idexx	
FB-1-SH (22E0316-11) DI Water Sa	ampled: 05/10	/22 11:00 R	eceived: (05/10/22 11:	:57					
Total Coliforms	1540	10		MPN/100 ml	10	AZ	2051038	05/10/22 13:25 05/11/22 13:25	SM9223	
E. Coli	ND	10	10	"	"	AZ	"	05/10/22 13:25 05/11/22 13:25	"	
								55/11/22 15.25		

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reportir Limit		Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
FB-1-SH (22E0316-11) DI Water Sa	mpled: 05/10	/22 11:00	Received:	05/10/22 11	:57					
Enterococcus	ND	10	10	MPN/10 0 ml	10	AL	2051037	05/10/22 13:25 05/11/22 13:25	Idexx	
A1-3-R1-DUP-SH (22E0316-12) Seaw	ater Sampl	led: 05/10/2	22 08:31	Received: 05	5/10/22 11:	57				
Total Coliforms	6870	10	10	MPN/100 ml	10	AZ	2051038	05/10/22 13:25 05/11/22 13:25	SM9223	
E. Coli	ND	10	10	"	"	AZ	"	05/10/22 13:25 05/11/22 13:25	"	
Enterococcus	ND	10	10	"	"	AL	2051037	05/10/22 13:25 05/11/22 13:25	Idexx	
OF-2-DW2 (22E0316-13) Freshwater	Sampled: (05/10/22 09	9:45 Recei	ved: 05/10/2	22 11:57					
Total Coliforms	48800	100	100	MPN/100 ml	100	AZ	2051038	05/10/22 13:25 05/11/22 13:25	SM9223	
E. Coli	310	100	100	"	"	AZ	"	05/10/22 13:25 05/11/22 13:25	"	
Enterococcus	4110	10	10	"	10	AL	2051037	05/10/22 13:25 05/11/22 13:25	Idexx	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

ND

E. Coli

Microbiological Parameters by Standard Methods - Quality Control

Analyte	Result	MDL	Reporting Limit	Units	Analyst	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2051037												
Blank (2051037-BLK1)					Prepared:	05/10/22	Analyzed: (05/11/22				
Enterococcus	ND	1	1 N	1PN/100 r	nl AL							
Batch 2051038												
Blank (2051038-BLK1)					Prepared:	05/10/22	Analyzed: (05/11/22				
Total Coliforms	ND	1	1 N	1PN/100 r	nl AZ							

AZ

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)

NR Not Reported

dry Sample results reported on a dry weight basis (if indicated in units column)

RPD Relative Percent Difference

MDL Method detection limit (indicated per client's request)

とというという

CHAIN-OF-CUSTODY RECORD

EMA LOG#: Client: Wood PLC

- EnviroMatrix (EM) Analytical, Inc.

(4)

Page_1_ of _2_

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

Client: Wood PLC									Re	auested	Requested Analysis	ø				
Attn: Kate Buckley, kate buckley@woodplc.com						_										F
Samplers(s): Wood																
Address: 9177 Sky Park Ct, San Diego, CA 92123																
					tra											
Phone: 760-420-5769	Fax:				erol											
Email: kate.buckley@woodplc.com																
Billing Address: 9177 Sky Park Ct, San Diego, CA 92123																
Project ID: POSD - SIYB Bacteria Special Study					(Col											
Please include the following information on invoices: 1) Project #: 2015[001116. (2) PO #: N/A (3) Org: 3151 (4) GL: 573000	Project #: 2	2015100	00.9110	02C	IstoT <u>∑</u> In ter											
	2	5			,mnoi											
D# Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type												
1 REF-1-SH	5/10/22	0755		2 / Bact	×											1
2 A1-1-R1-SH	1	10815	0815 sea water	2 / Bact	×											$oxed{\bot}$
3 A1-2-R1-SH		0820	O820 sea water	2 / Bact	X X									L	L	L
4 A1-3-R1-SH		0830	6830 sea water	2 / Bact	×									L	-	
5 A1-1-R2-SH		5160	sea water	2 / Bact	X										L	$oxed{L}$
6 A1-2-R2-SH		222	M25 sea water	2 / Bact	×											
7 A1-3-R2-SH		0930	0930 sea water	2 / Bact	X X											
T		1015	sea water	2 / Bact	X X											L
\neg		/ 020	sea water	2 / Bact	X X											L
10 A1-3-R3-SH	¥		1030 sea water	2 / Bact	XX										L	
Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water	V = Storm Wate	ti.				RELINC	RELINQUISHED BY	BY	┢	DATE/TIME	TIME		REC	RECEIVED BY	- - - - - -	1
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid) = Oil, L = Lic	hiid			Signature	The second secon	AND CONTRACTOR OF THE PARTY OF	CONTRACTOR	TOTAL STATE OF THE PARTY OF THE	or of the same		Signature				
Shipped By: D Courier DUPS D FedEx DUSPS X Client Drop Off D Other	ff 🗆 Other				Print	かって	20005	2 Emmanage		· 2 ? 	& Som	Print	7 6	V	X	and the second s
¹rurn-Around-Time: □ Same Day □ 1 day □ 2 day □ 3 day □ 4 day □ 5 day X STD (7 day)	□5 day 🗴 S	STD (7 day)			Company:	60014	Ů	الإعداد. محلسته		bis	なこ	Company:	3			
'Reporting Requirements: Fax X PDF X Excel Geotracker/EDF Hard Copy	OF UHard Cop	y n EDT			Signature							Signature				
'sample Disposal: X By Laboratory \Box Return to Client: P/U or Delivery \Box Archive	ivery Archiv	ړو			Print							Print				
Sample Integrity			(Company:							Company:				
Correct Containers! Yes No N/A	Containers Properly Preseved (Xes No N/A	perly Prese	ved (Yes No	N/A	Signature							Signature				
Custody Seals Intact: Yes No MA	Temp @ Receipt:	ipt:	ング		Print							Print				
COC/Labels Agree: (Fe) No N/A Sampled By: Cheny EMA Autosampler Company:	Sampled By:	CKeny EM.	Autosampl	er	Company:							Company:				
NOTE: Please Provide SWAMP EDD. Please report true numeric	results betwe	en 10-2,40	0,000 MPN/	100mL for 1	otal Colife	rm and Ente	rococcus u	ing the Co	ilert and E	nterolert me	thods, response	ectively, for	ach.			
For each sample, conduct a 3x dilution for renortable MPN (MDI, 10 - 2.4 mil)	MDI, 10-2,	4 mil)														NO.

For each sample, conduct a 3x dilution for reportable MPN (MDL 10 - 2.4 mil).

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

というから

Page_2__ of_2__

CHAIN-OF-CUSTODY RECORD

EMA LOG#

- EnviroMatrix

(Analytical, Inc.

M

7

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

RECEIVED BY ompany Company ignature Signature ij ij ij Requested Analysis DATE/TIME 72721 RELINQUISHED BY A. S. C. \Box MTF \overline{X} Enterolert Enterococcus, ompany: Company: Company: Signature Signature Signature P.E. Print Pii T X Total (Colilert) # / Type Container 2 / Bact 2 / Bact Please include the following information on invoices; 1) Project #: 2015100116.0002C Containers Properly Preseved: Yes No N/A Sampled By: Chent EMA Autosampler Sample sea water sea water Matrix Sample Time 2011 27/01/5 SII0/22 | 082| Turn-Around-Time: 🗆 Same Day 🗈 1 day 🗅 2 day 👝 3 day 🗅 4 day 🗅 5 day 🛚 X STD (7 day) Reporting Requirements:

Fax X PDF X Excel

Geottacker/EDF

Hard Copy

EDT WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid Temp @ Receipt: Sample Disposal: X By Laboratory 12 Return to Client: P/U or Delivery 12 Archive Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water Sample Shipped By: a Courier a UPS a FedEx a USPS X Client Drop Off a Other Fax: Sample Integrity Billing Address: 9177 Sky Park Ct, San Diego, CA 92123 A1-3-R1-DUP-SH (4) GL: 573000 Address: 9177 Sky Park Ct, San Diego, CA 92123 Attn: Kate Buckley, kate.buckley@woodplc.com Project ID: POSD - SIYB Bacteria Special Study Client Sample ID Email: kate.buckley@woodplc.com (3) Org: 3151 ustody Seals Intact: Yes No (MA Correct Containers: (Ves No N/A OC/Labels Agree: Yes No N/A まりす Phone: 760-420-5769 Samplers(s): Wood Client: Wood PLC FB-1-SH (2) PO #: N/A # @ 9 00 6 9

For each sample, conduct a 3x dilution for reportable MPN (MDL 10 - 2.4 mil).

OTE: Please Provide SWAMP EDD. Please report true numeric results between 10-2,400,000 MPN/100mL for Total Coliform and Enterococcus using the Colliert and Enterolert methods, respectively, for each

Company

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

2250316 m -E

CHAIN-OF-CUSTODY RECORD

EMA LOG#: Client: Wood PLC

- EnviroMatrix (Analytical, Inc.

0 4 Page L of Z

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

Nient: V	lient: Wood PLC											Redu	Requested Analysis	Analy	sis						
vttn: Ka	ttn: Kate Buckley, kate.buckley@woodplc.com							_			_	L	L		_		L		-		Γ
amplers	amplers(s): Wood																				
ddress:	ddress: 9177 Sky Park Ct, San Diego, CA 92123																				
						,,,,,	110														
hone:	760-420-5769	Fax:				1046	1010														
mail: k	imail: kate.buckley@woodplc.com						wa														
\ Jilling A	illing Address: 9177 Sky Park Ct, San Dlego, CA 92123						T														
roject I	roject ID: POSD - SIYB Bacteria Special Study						4TN														
lease include 2) PO #: N/A	Please include the following information on invoices: 1) Project #: Ω Ω Ω 00 2) PO #: N/A (3) Org: 3151 (4) GL: 573000	roject #: 🏒	01510	7000-91110	7700	IstoT <u>Y</u>	um fer														
		Sample	Sample	Sample	Container		LOCOCCI														
# 01	Client Sample ID	Date	Time	Matrix		Coli	NIICI														
1	FB-L-WKD1			sea water		×	t	_		┢					_	L	_		<u> </u>	T	T
2	DUPWIEDI			sca water	ш	×	 			\vdash	Ļ				╀	1	-		\downarrow		Τ
3	DF-2-DW2	5/10/12	5460	_	2/ Pal 1	×	×			\dagger	╀		-		+	Ţ			+	\dagger	T
4						-				\vdash	lacksquare		-		<u> </u>		_		ig		Τ
5								f			L		-	Ĺ	-		-		-		T
ý								_							╀		┝		╀	t	Ī
7										_			<u> </u>		┝	L	-	L	╀	İ	
8										\vdash	L		-		-	L	-		╀	Ĺ	Γ
6								\vdash		┢	L		-	L	╀				╀	t	Τ
10								<u> </u>		T	_		-	$oldsymbol{\perp}$	ig		╀	\dagger	+		Т
fatrix C	latrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water	= Storm Water					Æ	RELINQUISHED BY	SHED	X			DATE/TIME	ME	-			RECEIVED BY	$\Big _{\stackrel{\sim}{a}}$	1	Т
VW = Wa	VW = Wastewater, $S = Soil$, $SED = Sediment$, $SD = Solid$, $T = Tissue$, $O = Oil$, $L = Liquid$	= Oil, L = Liqu	pin			Signature		/				ł.	7 101	,	Sign	Signature		4	lack		Т
hipped E	hipped By: Gourier a UPS a FedEx a USPS X Client Drop Off a Other	□ Other				Print	N.	3	8		,	1		· Carrier	Print	3	4		4	· · · · · · · · · · · · · · · · · · ·	Τ
Turn-Ar	Turn-Around-Time: Same Day 1 day 2 day 3 day 4 day	□ 5 day X STD (7 day)	TD (7 day)			Company:	1-45	3	J. 19					jii N	CO	Company:					T
Reportin	Reporting Requirements: Fax X PDF X Excel Geotracker/EDF Hard Copy	F - Hard Copy	y o EDT			Signature									Sign	Signature	,				Τ
Sample I	Sample Disposal: X By Laboratory a Return to Client: P/U or Delivery	ery 🗆 Archive				Print									Print						T
	Sample Integrity			!		Company	.;								Com	Company:					Τ
orrect Co	orrect Containers: Yes No N/A	Containers Properly Preseved:	perly Presev	ed: Kee No N/A	N/A	Signature									Sign	Signature					T
ustody S	ustody Seals Intact: Yes No (N/A)	Temp @ Receipt:	pt:	2.		Print									Print						Τ
OC/Labe	els Agree: Yes No N/A	Sampled By: C	Ment EMA	Autosamp	ler	Company									Com	pany:					Τ
OTE: 1	NOTE: Please Provide SWAMP EDD. Please report true numeric results between 10-2,400,000 MPN/100mL for Total Colitorin and Enterococcus using the Collect and Enterolert methods, respectively, for each.	results betwee	in 10-2,400	,000 MPK	/100mL for	otal Col	form and	Enteroc	sccus usi	ng the (olilerta	nd Enter	olert met	nods, res	spectively	, for eac	ei ei				T

For each sample, conduct a 3x dilution for reportable MPN (MDL 10 - 2.4 mil).

* FWSAMPLE, SALINIFY: 0.68 PPT

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days



18 May 2022

Wood Environment & Infrastructure Solutions, Inc.

Attn: Kate Buckley 9177 Sky Park Court San Diego, CA 92123

Project: POSD-Bacteria Shelter Island San Diego Bay/POSD-SIYB Bacteria Special Study/Project:2015100116.0002A/

EMA Log #: 22E0454

Org:3151/GL:573000

Enclosed are the results of analyses for samples received by the laboratory on 05/13/22 11:33. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. Environmental Laboratory Network, Inc. certifies that this data is in compliance both technically and for completeness.

Jenny Douglas

President/CEO

Environmental Laboratory Network, Inc.

dba EnviroMatrix Analytical

CA ELAP Certification #: 2564

Project Name: POSD-Bacteria Shelter Island San Diego Bay

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MC-1-W2	22E0454-01	Seawater	05/13/22 09:45	05/13/22 11:33
MC-2-W2	22E0454-02	Seawater	05/13/22 09:35	05/13/22 11:33
OF-1-W2	22E0454-03	Seawater	05/13/22 08:40	05/13/22 11:33
OF-2-W2	22E0454-04	Seawater	05/13/22 09:00	05/13/22 11:33
OF-3-W2	22E0454-05	Seawater	05/13/22 09:15	05/13/22 11:33
FP-W2	22E0454-06	Seawater	05/13/22 09:25	05/13/22 11:33
GD-W2	22E0454-07	Seawater	05/13/22 10:10	05/13/22 11:33
BS-W2	22E0454-08	Seawater	05/13/22 08:50	05/13/22 11:33
KK-W2	22E0454-09	Seawater	05/13/22 10:17	05/13/22 11:33
NK-W2	22E0454-10	Seawater	05/13/22 09:55	05/13/22 11:33
KB-W2	22E0454-11	Seawater	05/13/22 10:00	05/13/22 11:33
REF-1-W2	22E0454-12	Seawater	05/13/22 07:50	05/13/22 11:33
A1-1-W2	22E0454-13	Seawater	05/13/22 08:15	05/13/22 11:33
A1-2-W2	22E0454-14	Seawater	05/13/22 08:25	05/13/22 11:33
A1-3-W2	22E0454-15	Seawater	05/13/22 08:30	05/13/22 11:33
FB-1-W2	22E0454-16	Seawater	05/13/22 10:30	05/13/22 11:33
KK-DUP-W2	22E0454-17	Seawater	05/13/22 10:18	05/13/22 11:33

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reportin Limit	ug Units	Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
MC-1-W2 (22E0454-01) Seawater	Sampled: 05/1	3/22 09:45	Received	1: 05/13/22	11:33					
Total Coliforms	31	10	10	MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	10	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	ND	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
MC-2-W2 (22E0454-02) Seawater	Sampled: 05/1	3/22 09:35	Received	l: 05/13/22 1	11:33					
Total Coliforms	74	10	10	MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	ND	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
OF-1-W2 (22E0454-03) Seawater	Sampled: 05/13	3/22 08:40	Received	: 05/13/22 1	1:33					
Total Coliforms	1470	10	10	MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	279	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	ND	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
OF-2-W2 (22E0454-04) Seawater	Sampled: 05/13	3/22 09:00	Received	: 05/13/22 1	1:33					
Total Coliforms	2380	100		MPN/100 ml	100	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	200	100	100	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	1830	10	10	"	10	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
OF-3-W2 (22E0454-05) Seawater	Sampled: 05/13	3/22 09:15	Received	: 05/13/22 1	1:33					
Total Coliforms	146	10		MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	10	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	20	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
FP-W2 (22E0454-06) Seawater S	ampled: 05/13/2	2 09:25 R	eceived: A	5/13/22 11:3	33					
Total Coliforms	272	10		MPN/100 ml	10	AL	2051322	05/13/22 15:30	SM9223	
Tomi Comorms	212	10	10		10	11L	2031322	05/14/22 15:30	0.11/223	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
FP-W2 (22E0454-06) Seawater	Sampled: 05/13/2	2 09:25	Received: 05	/13/22 11:3	3					
E. Coli	ND	10	10	MPN/10 0 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
Enterococcus	ND	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
GD-W2 (22E0454-07) Seawater	Sampled: 05/13/2	2 10:10	Received: 05	5/13/22 11:3	33					
Total Coliforms	135	10	10 M	MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	30	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
BS-W2 (22E0454-08) Seawater	Sampled: 05/13/2	2 08:50	Received: 05	/13/22 11:3	3					
Total Coliforms	146	10	10 M	MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	20	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	20	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
KK-W2 (22E0454-09) Seawater	Sampled: 05/13/2	22 10:17	Received: 0	5/13/22 11:3	33					
Total Coliforms	20	10	10 M	MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	10	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
NK-W2 (22E0454-10) Seawater	Sampled: 05/13/2	2 09:55	Received: 05	5/13/22 11:3	33					
Total Coliforms	52	10	10 M	MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	ND	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
KB-W2 (22E0454-11) Seawater	Sampled: 05/13/2	2 10:00	Received: 05	5/13/22 11:3	3					
Total Coliforms	73	10		MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	10	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reporting Limit	g Units	Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
KB-W2 (22E0454-11) Seawater	Sampled: 05/13/2	22 10·00 F	Received: 0	5/13/22 11:3	13					
Enterococcus	ND	10	10	MPN/10	10	AL	2051323	05/13/22 15:30	Idexx	
				0 ml		7112		05/14/22 15:30		
REF-1-W2 (22E0454-12) Seawate	r Sampled: 05/	13/22 07:50	Received	1: 05/13/22	11:33					
Total Coliforms	63	10	10	MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	10	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	II	
Enterococcus	ND	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
A1-1-W2 (22E0454-13) Seawater	Sampled: 05/13	3/22 08:15	Received:	05/13/22 11	:33					
Total Coliforms	20	10	10	MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	20	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	ND	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
A1-2-W2 (22E0454-14) Seawater	Sampled: 05/13	3/22 08:25	Received:	05/13/22 11	:33					
Total Coliforms	10	10	10	MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	10	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	ND	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
A1-3-W2 (22E0454-15) Seawater	Sampled: 05/13	3/22 08:30	Received:	05/13/22 11	:33					
Total Coliforms	10	10		MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	ND	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	
FB-1-W2 (22E0454-16) Seawater	Sampled: 05/13	3/22 10:30	Received:	05/13/22 11	:33					
Total Coliforms	ND	10	10	MPN/10 0 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	ND	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reportii Limit		Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
KK-DUP-W2 (22E0454-17) Seawater	Sampled:	05/13/22 10:	18 Rece	ived: 05/13/	22 11:33					
Total Coliforms	31	10	10	MPN/100 ml	10	AL	2051322	05/13/22 15:30 05/14/22 15:30	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/13/22 15:30 05/14/22 15:30	"	
Enterococcus	ND	10	10	"	"	AL	2051323	05/13/22 15:30 05/14/22 15:30	Idexx	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods - Quality Control

Analyte	Result	MDL	Reporting Limit	Units	Analyst	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2051322												
Blank (2051322-BLK1)					Prepared:	05/13/22	Analyzed:	05/14/22				
Total Coliforms	ND	1	1 N	/IPN/100 n	nl AL							
E. Coli	ND	1	1	"	AL							
Batch 2051323												
Blank (2051323-BLK1)					Prepared:	05/13/22	Analyzed:	05/14/22				
Enterococcus	ND	1	1 N	/IPN/100 n	nl AL							

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)

NR Not Reported

dry Sample results reported on a dry weight basis (if indicated in units column)

RPD Relative Percent Difference

MDL Method detection limit (indicated per client's request)

-EnviroMatrix (E) Analytical, Inc.

CHAIN-OF-CUSTODY RECORD

EMA LOG#:	9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763
Client: Wood PLC	December 1
Attn: Kate Buckley, kate buckley@woodplc.com	Requested Analysis
Samplers(s): Wood	

Attn: Kate Buckley, kate.buckley@woodplc.com					L			- -		Tradacated Aniany Sis	1			
Samplers(s): Wood					_									
Address: 9177 Sky Park Ct, San Diego, CA 92123										-				
					ŢI									
Phone: 760-420-5769	Fax:				olor					11				
Email: kate.buckley@woodplc.com														
Billing Address: 9177 Sky Park Ct, San Diego, CA 92123														
Project ID: POSD - SIYB Bacteria Special Study														
Please include the following information on invoices: 1) Project #: 2015100116.00 (2) PO #: N/A (3) Org: 3151 (4) Ci - 573000) Project #: 201	15100116	5.0002A.EMA	MA										
ID# Client Sample ID	Sample Date	Sample Time	Sample	Container	moliloC coorsin									***************************************
1 MC-1-W2	1 4	٠,*	sea water	2 / Bact	1	1		1						
П		0435	sea water	2 / Bact	╀	_		+	1	+	1	+	1	
Т			sea water	2 / Bact	┿	1		+	+			1		
)]	0000	sea water	2 / Bact	×	L					-	+		
	21	5160	sea water	2 / Bact	╀			1	1			+	1	
6 FP-W2	2	272	sea water	2 / Bact	×			+		+	1	1		1
7 GD-W2		0/0/	sea water	2 / Bact	╀			+						1
8 BS-W2	_	$\overline{\lambda}$	sea water	2 / Bact	╫	L	<u> </u>	+		+	1	1		
9 KK-W2		7 7	sea water	2 / Bact	╀	_		+	1	+	1		1	
10 NK-W2	\$	1	sea water	2 / Bact	+-			+						
Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW == Storm Water	W == Storm Water				4	RFLING	RELINOLIISHED RV	- - - 		7/LIN (1).				
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid	O = Oil, L = Liquid	,444			Signature		COLUMN D		DAII	DATE/TIME		RECEIVED BY	(ED BY	
Shipped By: □ Courier □ UPS □ FedEx □ USPS X Client Drop Off □ Other	Off Other				Print		Section of the section of	100	1000	ý	<u> </u>		The book of the control of the contr	
'Turn-Around-Time: Same Day 1 day 2 day 3 day 4 day 5 day XSTD (7 day)	ty □ 5 day X STE) (7 day)			1 8	1000	4	3	nug _{io} .	24 64 14 24 24 24	18.00	727	1	
'Reporting Requirements: Fax X PDF X Excel	DF Hard Copy	o EDT			Signature		4			(6.11	Company:			
'Sample Disposal: X By Laboratory Defeat to Client: P/U or Delivery Archive	livery - Archive				D-in-				Т		Signature			
Sample Infegrity	,										Print			
Correct Containers: (Yes/No N/A	Containers Properly Preserved: (Ved No N/A	-ly Preseyer	Nod No		Company:						Company:			
Custody Seals Intact: Yes No KIA	Tenn @ Receint:	>		G A	Signature				-		Signature			
COC/Labels Agree: Xey No N/A	Sampled By: Cffent FMA Autosampler	In EMA	Amtocample		rrint						Print			
NOTE: Please Provide SWAMP EDD. Please report true numeric results between 10-2,400,000	c results between	10-2.400.C	00 MPN7	Offmer for 1	Company.	on and Enta					Company:			
For each sample, conduct a 3x dilution for reportable MPN (MPI 10 2 4)	WDI 10 24	: :	1		Utai Comit	IIII AIIU EIIIC	rococcus usm	g the Colliert	The reconstruction of the Collection of the Collect and Enterolett methods, respectively, for each.	rethods, respe	ctively, for eac	Jh.		

or each sample, conduct a 3x dilution for reportable MPN (MDL 10 - 2.4 mil).

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

CHAIN-OF-

Client: Wood PLC

一〇つつつ		-
CHAIN-OF-CUSTODY RECORD	- EnviroMatrix	Analytical, Inc
EMA LOG #:	9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717	, CA 92123 - Phone (858) 560-7717

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

	Cuent. Wood PLC										Renn	Requested Analysis	nolveie						
Attn: K	Attn: Kate Buckley, kate buckley@woodplc.com					-	L	F	F			<u> </u>	lany 313	-	-	-	ļ	-	r
Sample	Samplers(s): Wood																		
Addres	Address: 9177 Sky Park Ct, San Diego, CA 92123																		
									w										
Phone:	Phone: 760-420-5769	Fax:					rolei												
Email:	Email: kate.buckley@woodplc.com						2011												
Billing	Billing Address: 9177 Sky Park Ct, San Diego, CA 92123						137						_						
Project	Project ID: POSD - SIYB Bacteria Special Study						771												
Please	Please include the following information on invoices: 1) Project #: 2015100116.0002A.EMA	Project #: 2	10151001	16.0002A.I	EMA) IstoT	AL (2)												
	(5) 018: 3131						'en												
		Sample	Sample	Samule	Container		rococc												
# 🗎	Client Sample ID	Date	Time		# / Type														
-	KB-W2	5/13/22	10001 -121	sea water	2 / Bact	4_	 ×	1	1		1	‡	\downarrow		+	#	+	+	_
2	REF-1-W2	-	0440	7	2 / Bact	╀		+	+		\downarrow	‡		$\frac{1}{1}$		+	1	+	
3	A1-1-W2		100	sea water	2 / Bact	╀		‡	+	+	+	†	1	$\frac{1}{1}$	1	1		1	<u>-</u> -
4	A1-2-W2		TRUE	sea water	2 / Bact	┿		1	+		‡	1	-		1		1	+	
5	A1-3-W2		0830	sea water	2 / Bact	+-		+	1		+	†	1		1	1	+	+	_
9	FB-1-W2	_	1030	sea water	2 / Bact	╀		L	+	+			1	1	1	1	1	+	-
7	KK-DUP-W2	>	10/8	sea water	2 / Bact	┿		_	+	\perp		1	+	$\frac{1}{1}$	1	_	1	+	-
∞						┿	_	<u> </u>	L		‡	+		$\frac{1}{1}$	1	1		+	_
6						+		1	+		1	1	-	-	_ _	1		\dashv	т
10						\dagger	1	‡	+	$\frac{1}{1}$	1	1	1	1	1			_	
Matrix (Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water	/ = Storm Wate	7 17			$\frac{1}{2}$		DET INCLUSION DAY	70 00		 -		4	4				_	
W = W	WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid	ı = Oil, L = Liq	pinid			Sionature	1	neioon	CUDI	The section of the section of	-	DATE/TIME			RE	RECEIVED BY	34		
hipped	shipped By: □ Courier □ UPS □ FedEx □ USPS X Client Drop Off □ Other	f = Other				Print			C. Santana		J	2		Signature	A CONTRACTOR OF THE PARTY OF TH	Management and Assessment	O O		
Turn-A	Turn-Around-Time: a Same Day a 1 day a 2 day a 3 day a 4 day	N Y Cho	V CTD /7 draw		N		103/30	24.040	2/10	, li	-	_		Print	7 8/2/	4 8		And Commission of the land of	
Reporti	Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Requirements: Reporting Repo	Hard	N C EDT			Company:	C002	9	40		_	7. 1	S.	Company:	太	, o			
Samulo	Dienocal, V D., I chemeter 2n	Too name	3			Signature								Signature					_
	Zampie Disposa. A by Lavolatory Kettim to Cilent: P/U or Delivery	very	ę.			Print								Print					т-
	Sample Integrity					Company								Company:			3		_
orrect (orrect Containers! Yes No N/A	Containers Properly Preseved:	perly Prese	ved: Yes No N/A	N/A	Signature							Ī	Signature					_
ustody	ustody Seals Intact: Yes No NA	Temp @ Receipt:	ipt:	ここ		Print					-T		<u>: a -</u>	J. Britis					_
OC/Lat	OC/Labels Agree: Yest No N/A Sampled By: Clerit EMA Autosampler Commany	Sampled By:	Client EM	A Autosample	E.	Company					·			reme					
(OTE:	Please Provide SWAMP EDD. Please report true numeric	results betwee	en 10-2,40	7.000 MPN/	100ml for	otal Coli	orm and H	1,0000001	1000000					Company:					
or eaci	or each sample, conduct a 3x dilution for remortable MBN (MDI 10, 2,4		·				Our and L	יונכו סרטכיני	ın gillen e	Collier	and Enter	lert method	s, respecti	ively, for e	each.				بسدا

ble MPN (MDL 10 - 2.4 mil).

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

 $^2\mathrm{EMA}$ reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.



27 May 2022

Wood Environment & Infrastructure Solutions, Inc.

Attn: Kate Buckley 9177 Sky Park Court San Diego, CA 92123

Project: POSD-Bacteria Shelter Island San Diego Bay/POSD-SIYB Bacteria Special Study/ Project:2015100116.0002A.EMA/Org:3151/GL:573000

Enclosed are the results of analyses for samples received by the laboratory on 05/20/22 10:35. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. Environmental Laboratory Network, Inc. certifies that this data is in compliance both technically and for completeness.

EMA Log #: 22E0691

Jenny Douglas

President/CEO

Environmental Laboratory Network, Inc.

dba EnviroMatrix Analytical

CA ELAP Certification #: 2564

Project Name: POSD-Bacteria Shelter Island San Diego Bay

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MC-1-W3	22E0691-01	Seawater	05/20/22 06:30	05/20/22 10:35
MC-2-W3	22E0691-02	Seawater	05/20/22 06:40	05/20/22 10:35
OF-1-W3	22E0691-03	Seawater	05/20/22 07:50	05/20/22 10:35
OF-2-W3	22E0691-04	Seawater	05/20/22 07:15	05/20/22 10:35
OF-3-W3	22E0691-05	Seawater	05/20/22 06:55	05/20/22 10:35
FP-W3	22E0691-06	Seawater	05/20/22 06:45	05/20/22 10:35
GD-W3	22E0691-07	Seawater	05/20/22 06:05	05/20/22 10:35
BS-W3	22E0691-08	Seawater	05/20/22 07:40	05/20/22 10:35
KK-W3	22E0691-09	Seawater	05/20/22 06:15	05/20/22 10:35
NK-W3	22E0691-10	Seawater	05/20/22 08:25	05/20/22 10:35
KB-W3	22E0691-11	Seawater	05/20/22 08:35	05/20/22 10:35
REF-1-W3	22E0691-12	Seawater	05/20/22 05:55	05/20/22 10:35
A1-1-W3	22E0691-13	Seawater	05/20/22 08:00	05/20/22 10:35
A1-2-W3	22E0691-14	Seawater	05/20/22 08:10	05/20/22 10:35
A1-3-W3	22E0691-15	Seawater	05/20/22 08:15	05/20/22 10:35
FB-W3	22E0691-16	Blank Water	05/20/22 08:50	05/20/22 10:35
OF-3-DUP-W3	22E0691-17	Seawater	05/20/22 07:00	05/20/22 10:35
FB-Test	22E0691-18	Blank Water	05/20/22 08:55	05/20/22 10:35
OF-2-DW3	22E0691-19	Fresh Water	05/20/22 07:20	05/20/22 10:35

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reportir Limit		Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
MC-1-W3 (22E0691-01) Seawater	Sampled: 05/2	20/22 06:30	Received	l: 05/20/22 1	0:35					
Total Coliforms	197	10		MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	30	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	"	
Enterococcus	ND	10	10	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
MC-2-W3 (22E0691-02) Seawater	Sampled: 05/2	20/22 06:40	Received	l: 05/20/22 1	0:35					
Total Coliforms	201	10	10	MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	98	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	"	
Enterococcus	ND	10	10	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
OF-1-W3 (22E0691-03) Seawater	Sampled: 05/20	0/22 07:50	Received	: 05/20/22 1	0:35					
Total Coliforms	537	10	10	MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	41	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	"	
Enterococcus	10	10	10	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
OF-2-W3 (22E0691-04) Seawater	Sampled: 05/20	0/22 07:15	Received	: 05/20/22 1	0:35					
Total Coliforms	54800	100	100	MPN/100 ml	100	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	11000	100	100	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	"	
Enterococcus	6970	100	100	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
OF-3-W3 (22E0691-05) Seawater	Sampled: 05/20	0/22 06:55	Received	: 05/20/22 1	0:35					
Total Coliforms	368	10	10	MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	20	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	"	
Enterococcus	10	10	10	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
FP-W3 (22E0691-06) Seawater S	ampled: 05/20/2	22 06:45 R	eceived: 0	5/20/22 10:3	35					
Total Coliforms	292	10	10	MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reportir Limit		Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
FP-W3 (22E0691-06) Seawater	Sampled: 05/20/2	2 06:45	Received: 0	05/20/22 10:3	35					
E. Coli	20	10		MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
Enterococcus	ND	10	10	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
GD-W3 (22E0691-07) Seawater	Sampled: 05/20/2	22 06:05	Received:	05/20/22 10:	35					
Total Coliforms	256	10	10	MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	"	
Enterococcus	ND	10	10	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
BS-W3 (22E0691-08) Seawater	Sampled: 05/20/2	2 07:40	Received: 0	5/20/22 10:3	35					
Total Coliforms	175	10		MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	20	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	"	
Enterococcus	ND	10	10	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
KK-W3 (22E0691-09) Seawater	Sampled: 05/20/	22 06:15	Received:	05/20/22 10:	35					
Total Coliforms	110	10	10	MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	10	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	"	
Enterococcus	10	10	10	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
NK-W3 (22E0691-10) Seawater	Sampled: 05/20/2	22 08:25	Received:	05/20/22 10:	35					
Total Coliforms	328	10		MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	223	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	"	
Enterococcus	226	10	10	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
KB-W3 (22E0691-11) Seawater	Sampled: 05/20/2	22 08:35	Received: (05/20/22 10::	35					
Total Coliforms	836	10		MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	512	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	"	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reportir Limit		Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
KB-W3 (22E0691-11) Seawatei	Sampled: 05/20/	22 08:35	Received: (05/20/22 10::	35					
Enterococcus	223	10	10	MPN/100 ml	10	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
REF-1-W3 (22E0691-12) Seaw	atan Sampladi 05	/20/22 05.	55 Dagaiya	d. 05/20/22	10.25					
Total Coliforms	97	10		MPN/100 ml	10.33	AL	2052026	05/20/22 12:00	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/21/22 12:00 05/20/22 12:00 05/21/22 12:00	"	
Enterococcus	ND	10	10	"	"	AL	2052025	05/20/22 12:00 05/20/22 12:00 05/21/22 12:00	Idexx	
A1-1-W3 (22E0691-13) Seawat	or Sampled: 05/2	n/22 ng.nn	Daggiyadı	. 05/20/22 10	.25					
Total Coliforms	327	10		MPN/100 ml	10	AL	2052026	05/20/22 12:00	SM9223	
Total Comornis	02.	10	10		10	7112	2002020	05/21/22 12:00	5.1.7.223	
E. Coli	52	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	u	
Enterococcus	ND	10	10	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
A1-2-W3 (22E0691-14) Seawat	er Sampled: 05/20	0/22 08:10	Received	: 05/20/22 10):35					
Total Coliforms	282	10	10	MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	41	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	"	
Enterococcus	ND	10	10	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
A1-3-W3 (22E0691-15) Seawat	er Sampled: 05/20	0/22 08:15	Received	: 05/20/22 10):35					
Total Coliforms	189	10	10	MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	20	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	"	
					,,	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
Enterococcus	10	10	10	"						
					10:35					
FB-W3 (22E0691-16) Blank W						AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
Enterococcus FB-W3 (22E0691-16) Blank Wa Fotal Coliforms E. Coli	ater Sampled: 05/	20/22 08:	50 Receive	d: 05/20/22 MPN/10		AL AL	2052026		SM9223	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reportin Limit	Units	Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
OF-3-DUP-W3 (22E0691-17) Seawater	Sampled	: 05/20/22 07:	:00 Rec	eived: 05/20	/22 10:35					
Total Coliforms	98	10	10	MPN/100 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	10	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	u	
Enterococcus	20	10	10	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
FB-Test (22E0691-18) Blank Water S	ampled: 05	/20/22 08:55	Receive	ed: 05/20/22	10:35					
Total Coliforms	ND	10	10	MPN/10 0 ml	10	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	ND	10	10	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	п	
Enterococcus	ND	10	10	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	
OF-2-DW3 (22E0691-19) Fresh Water	Sampled:	05/20/22 07:	20 Rece	eived: 05/20/	22 10:35					
Total Coliforms	365000	1000	1000	MPN/100 ml	1000	AL	2052026	05/20/22 12:00 05/21/22 12:00	SM9223	
E. Coli	122000	1000	1000	"	"	AL	"	05/20/22 12:00 05/21/22 12:00	"	
Enterococcus	33600	1000	1000	"	"	AL	2052025	05/20/22 12:00 05/21/22 12:00	Idexx	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods - Quality Control

Analyte	Result	MDL	Reporting Limit	Units	Analyst	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2052025												
Blank (2052025-BLK1)					Prepared:	05/20/22	Analyzed: (05/21/22				
Enterococcus	ND	1	1 1	MPN/100 n	nl AL							
Batch 2052026												
Blank (2052026-BLK1)					Prepared:	05/20/22	Analyzed: (05/21/22				
Total Coliforms	ND	1	1 1	MPN/100 n	nl AL							
E. Coli	ND	1	1	"	AL							

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)

NR Not Reported

dry Sample results reported on a dry weight basis (if indicated in units column)

RPD Relative Percent Difference

MDL Method detection limit (indicated per client's request)

CHAIN-OF-CUSTODY RECORD 2012 00 0 - EnviroMatrix (E) Analytical, Inc. - 9590 Chesapeake Dr. Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

Client: Wood PLC

Client:	Client: Wood PLC					,				12	Pamest	Reamested Analysis	913.				
Attn: K	Attn: Kate Buckley, kate.buckley@woodplc.com					L		L	L	-			- L	-	-	-	-
Sample	Samplers(s): Wood					•											
Address	Address: 9177 Sky Park Ct, San Diego, CA 92123														*****		
						-	11										
Phone:	Phone: 760-420-5769	Fax:				-100	role								*****		
Email: 1	Email: kate.buckley@woodplc.com						3111/										
Billing	Billing Address: 9177 Sky Park Ct, San Diego, CA 92123						137										
Project	Project ID: POSD - SIYB Bacteria Special Study																
Please (2) PO	Please include the following information on invoices: 1) Project #: 2015100116.0002A.EMA (2) PO #: N/A (3) Ore: 3151 (4) CT 572000	Project #: 2	0151001	16.0002A.	EMA) lstoT	IAI 🕀										· · · · · · · · · · · · · · · · · · ·
	10000000						· cn										
			ç				00000										
# CI	Client Sample ID	Sample	Sample Time	Sample Matrix	Container # / Type	Jilo:	10345										
-	MC-1-W3	5/20/2022	0630	+-*	_	×			\perp	1	+		+		1	1	-
	MC-2-W3	5/20/2022	0 hyp	ž	2	┿		1	$\frac{1}{1}$	1	Ŧ	+	+	1	+	1	\dashv
3	OF-1-W3	5/20/2022	0350	SS SS		+-		1	$oldsymbol{\dagger}$	1	1	†	+	+	1	#	+
	OF-2-W3	5/20/2022	0715	ã	L.	╀			$\frac{1}{2}$	1	+	+				1	+
Т	OF-3-W3	5/20/2022	06.55	sea water		╄		L	\downarrow	1	-	+	+	+	+	1	+
9	FP-W3	5/20/2022	Shou	sea water	2 / Bact	×				T	1	+	+	+	$\frac{1}{4}$	1	+
7	GD-W3	5/20/2022 06.05	0605	Š		╄			$oxed{\perp}$	1	1	+	+		1	1	\downarrow
8	BS-W3	0740 S/20/202/8	0440	ŝ	•	+		1	$oldsymbol{\perp}$	1	+	+	+	+	1	1	\downarrow
6	KK-W3	5/20/2022 0615	06.5	Še	1.	╄		ŀ		1	+	+	+	_		1	+
10	NK-W3	5/20/2022	0817	Š	┺	╀		$\prod_{i=1}^{n}$	$\frac{1}{2}$	+		1	+	1	1	1	+
Matrix C	Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water	W = Storm Wate	1			4	4	REI INOI IICHED BV]]	†			+				_
WW = W;	WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid	0 = 0il, L = Liq	pin			Signature	1	COLORISM SECTION SECTI	D I	Alle	DAI	DATE/TIME	-	4	RECEIVED BY	_	
Shipped	Shipped By: a Counier a UPS a FedEx a USPS X Client Drop Off a Other	ff = Other				Print			Manager Con	William Control of the Control of th	E	STA	Signature				
Turn-Ar	Turn-Around-Time: 🗆 Same Day 🗀 1 day 🗀 2 day 🗀 3 day 🗀 4 day	□ 5 day	X STD (7 day)					Sales Company	J.		6	L					
Reportin	Reporting Requirements: D Fax X PDF X Excel D Geotracker/EDF D Hard Conv)F □ Hard Com	V O FINT			Company	5	べしそう	A. Carrier	1	١		Company:	Commence	THE PARTY	1	
Sample I	Sample Disposal: X By Laboratory of Return to Client: Dillian Dallian	do	ı			Signature							Signature		100		
	Sample Internity	ivery - Archive				Print							Print				
Correct	Correct Containers Kool Mr. M/A					Company					į		Company:	 			
Control	Ontanicis, respino in/A	Containers Properly Preseved: W	perly Prese	ved: Yes No N/A	N/A	Signature							Signature				
Custody	Custouy seats infact: Yes No (N/A)	Temp @ Receipt: 1407	pt: 24 67	STATE OF THE PARTY		Print							Print				
COC/Lab	COC/Labels Agree: Kes No N/A	Sampled By: Client EMA Autosampler	Jieht EM	Autosamp)	ler	Company:				T							į
SOLE:	NOTE: Please Provide SWAMP EDD. Please report true numeric results between 10-9, 400,000	results between	n 0-2,40),000 MPN,	/100mL for 1	otal Coli	MPN/100mL for Total Coliform and Enterpoloceus using the Colifert and Extended	ott attaacac.	ing the Co	Tout out			Company:				
For each	For each sample, conduct a 2x dilution for reportable MPN (RI 10 - 2.4 mil)	PI 10 - 2 4 m	- 6					-	יייי פיייי	Allert and	בוומוחנמו	memous, resp	pectively, for	each.			

each sample, conduct a 2x dilution for reportable MPN (RL 10 - 2.4 mil).

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

CHAIN-OF-CUSTODY RECORD DAR ON - EnviroMatrix Analytical, Inc.

Page_2__ of__2__

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

RECEIVED BY Print Company: Signature Signature Company: Signature Ħ Juint . Requested Analysis 3 6 5 C DATE/TIME 500 RELINQUISHED BY □ MTF X Enterolert Enterococcus, × × × Company: Company: Signature Signature Print Print Print × × \underline{X} Total (Colilert) 5/20/2022 | **09(5** | sea water | 2 / Bact Sample | Sample | Container **0835** sea water 2 / Bact 5/20/2022 | **OGOO** | sea water | 2 / Bact **0810** sea water 2 / Bact 5/20/2022 0700 sea water 2 / Bact 5/20/2022 0555 sea water 2 / Bact 2 / Bact Please include the following information on invoices: 1) Project #: 2015100116.0002A.EMA Containers Properly Preseved: (Yes)No N/A Temp @ Receipt. L. 1. 20 MAC & Sampled By: Client EMA Autosampler Matrix 5/20/2022 | 0850 water 5/20/22 10855 Brank Time Turn-Around-Time:

Same Day

1 day

2 day

3 day

4 day

5 day

XSTD (7 day) Reporting Requirements: GFax X PDF X Excel Geotracker/EDF GHard Copy GEDT WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid Sample Disposal: X By Laboratory a Return to Client: P/U or Delivery a Archive Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water Sample 5/20/2022 5/20/2022 Shipped By: a Courier a UPS a FedEx a USPS X Client Drop Off a Other Fax: Sample Integrity Billing Address: 9177 Sky Park Ct, San Diego, CA 92123 (3) Org: 3151 (4) GL: 573000 Address: 9177 Sky Park Ct, San Diego, CA 92123 Attn: Kate Buckley, kate.buckley@woodplc.com Project ID: POSD - SIYB Bacteria Special Study Email: kate.buckley@woodplc.com Custody Seals Intact: Tes No (V/A) Correct Containers: Kes No N/A FB-Teg OF-3-DUP-W3 Phone: 760-420-5769 Client: Wood PLC Samplers(s): Wood REF-1-W3 A1-1-W3 A1-2-W3 A1-3-W3 KB-W3 FB-W3 (2) PO #: N/A # 4 ∞ 7 9 6 1

For each sample, conduct a 2x dilution for reportable MPN (RL 10 - 2.4 mil).

NOTE: Please Provide SWAMP EDD. Please report true numeric results between 10-2,400,000 MPN/100mL tor '

total Coliform and Enterococcus using the Colilert and Enterolert methods, respectively, for each

Company:

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

CHAIN-OF-CUSTODY RECORD (1) EDO (8)

EMA LOG#: Client: Wood PLC

– EnviroMatrix

(Analytical, Inc.

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

CITATION I DO			2	Requested Analysis	2	
Attn: Kate Buckley, kate.buckley@woodplc.com				education family of		
Samplers(s): Wood						
Address: 9177 Sky Park Ct, San Diego, CA 92123						
		1				
Phone: 760-420-5769	Fax:	roler				
Email: kate.bucklev@woodplc.com						
Billing Address: 9177 Sky Park Ct, San Diego, CA 92123	23					
Project ID: POSD - SIYB Bacteria Special Study						
Ę	: 1) Project #:					
(2) IO#: IN/A (3) Org: 3131 (4) GL: 573000						
		ососси				
D# Client Sample ID	Date Time Matrix # / Tyme	ilo(
1 0F-2-DW3	Tre Sake) >				
2		4				
3						
4						
5						
9						
L						
8						
6						
10						
Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water	r, SW = Storm Water	DET INCLUS				
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liouid	ne. O = Oil, L = Liquid	KELINQUISHED BY	знер вү	DATE/TIME	/\ RECEIVED BY	
Shipped By: a Courier a UPS a FedEx a USPS X Client Drop Off	op Off \Box Other	WATER TO THE PARTY OF THE PARTY	1	COS	Signature	
Turn-Around-Time: @ Same Day 1 day 1 day 2 day 3 day 2	des a S day V CTP V		John South		Print A C A C A	
	D Geoffscher/FDE D Hand Com. TEDT	Company: Cインシュン	E & Lower	(0.55)	Company	
Sample Disposal: X By I ahoratory of 2 Patrice to Climate Dillians 1	Delice - A 1:	Signature			Signature	
From: 2 5) Educatory Nettlin 10 Citem: 1/U or	Delivery 🗅 Archive	Print			Print	
Sample Integrity		Сотрапу:			Company:	
Collect Contamers: Yes No N/A	Containers Properly Preseved: Yes, No N/A	Signature			Signature	
Custody Seals Intact: Yes No NA	Temp @ Receipt: Of My 18-18	Print			Print	
COC/Labels Agree. Tes No N/A	Sampled By: Client EMA Autosampler	Company:			Company	
10.2 Let 1 lease 110 vide 5 W AMIL EDD. Please report true numeric results between 10-2,400	nenc results between 10-2,400,000 MPN/100mL	,000 MPN/100mL for Total Coliform and Enterococcus using the Collect and Enterolect methods, respectively, for each	ccus using the Colilert and	Enterolert methods, respec	tively, for each,	

For each sample, conduct a 2x dilution for reportable MPN (RL 10 - 2.4 mil).

Salinity weasurd @

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relanquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.



27 May 2022

Wood Environment & Infrastructure Solutions, Inc.

Attn: Kate Buckley 9177 Sky Park Court San Diego, CA 92123

Project: POSD-Bacteria Shelter Island San Diego Bay/POSD-SIYB Bacteria Special Study/ Project:2015100116.0002B.EMA/Org:3151/GL:573000

Enclosed are the results of analyses for samples received by the laboratory on 05/21/22 10:30. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. Environmental Laboratory Network, Inc. certifies that this data is in compliance both technically and for completeness.

EMA Log #: 22E0720

Jenny Douglas

President/CEO

Environmental Laboratory Network, Inc.

dba EnviroMatrix Analytical

CA ELAP Certification #: 2564

Project Name: POSD-Bacteria Shelter Island San Diego Bay

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
REF-1-WKD2	22E0720-01	Seawater	05/21/22 06:15	05/21/22 10:30
A1-1-R1-WKD2	22E0720-02	Seawater	05/21/22 06:35	05/21/22 10:30
A1-2-R1-WKD2	22E0720-03	Seawater	05/21/22 06:45	05/21/22 10:30
A1-3-R1-WKD2	22E0720-04	Seawater	05/21/22 06:50	05/21/22 10:30
A1-1-R2-WKD2	22E0720-05	Seawater	05/21/22 07:35	05/21/22 10:30
A1-2-R2-WKD2	22E0720-06	Seawater	05/21/22 07:50	05/21/22 10:30
A1-3-R2-WKD2	22E0720-07	Seawater	05/21/22 08:00	05/21/22 10:30
A1-1-R3-WKD2	22E0720-08	Seawater	05/21/22 08:35	05/21/22 10:30
A1-2-R3-WKD2	22E0720-09	Seawater	05/21/22 08:45	05/21/22 10:30
A1-3-R3-WKD2	22E0720-10	Seawater	05/21/22 08:50	05/21/22 10:30
FB-WKD2	22E0720-11	Blank Water	05/21/22 09:00	05/21/22 10:30
A1-2-R2-DUP-WKD2	22E0720-12	Seawater	05/21/22 07:51	05/21/22 10:30
OF2-WKD2	22E0720-13	Seawater	05/21/22 07:00	05/21/22 10:30
OF2-DW-3	22E0720-14	Seawater	05/21/22 07:10	05/21/22 10:30

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

			D'	_				Camala Danasa I		
Analyte	Result	MDL	Reportir Limit		Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
REF-1-WKD2 (22E0720-01) Seawater	Sampled:	05/21/22 06:1	5 Rec	eived: 05/21	/22 10:30					
Total Coliforms	31	10		MPN/100 ml	10	CC	2052348	05/21/22 12:30 05/22/22 12:30	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/21/22 12:30 05/22/22 12:30	"	
Enterococcus	10	10	10	"	"	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	
A1-1-R1-WKD2 (22E0720-02) Seawater	Sample	d: 05/21/22 06	:35 Re	eceived: 05/2	21/22 10:3	0				
Total Coliforms	63	10	10	MPN/100 ml	10	CC	2052348	05/21/22 12:30 05/22/22 12:30	SM9223	
E. Coli	10	10	10	"	"	CC	"	05/21/22 12:30 05/22/22 12:30	"	
Enterococcus	10	10	10	"	"	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	
A1-2-R1-WKD2 (22E0720-03) Seawater	Sample	d: 05/21/22 06	:45 Re	eceived: 05/2	21/22 10:3	0				
Total Coliforms	63	10	10	MPN/100 ml	10	CC	2052348	05/21/22 12:30 05/22/22 12:30	SM9223	
E. Coli	20	10	10	"	"	CC	"	05/21/22 12:30 05/22/22 12:30	"	
Enterococcus	ND	10	10	"	"	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	
A1-3-R1-WKD2 (22E0720-04) Seawater	Sample	d: 05/21/22 06	:50 Re	eceived: 05/2	21/22 10:3	0				
Total Coliforms	74	10	10	MPN/100 ml	10	CC	2052348	05/21/22 12:30 05/22/22 12:30	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/21/22 12:30 05/22/22 12:30	"	
Enterococcus	ND	10	10	"	"	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	
A1-1-R2-WKD2 (22E0720-05) Seawater	Sample	d: 05/21/22 07	:35 Re	eceived: 05/2	21/22 10:3	0				
Total Coliforms	41	10	10	MPN/100 ml	10	CC	2052348	05/21/22 12:30 05/22/22 12:30	SM9223	
E. Coli	10	10	10	"	"	CC	"	05/21/22 12:30 05/22/22 12:30	n	
Enterococcus	ND	10	10	"	"	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	
A1-2-R2-WKD2 (22E0720-06) Seawater	Sample	d: 05/21/22 07	:50 Re	eceived: 05/2	21/22 10:3	0				
Total Coliforms	52	10	10	MPN/100 ml	10	CC	2052348	05/21/22 12:30 05/22/22 12:30	SM9223	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL 1	Reporting Limit	Units	Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
A1-2-R2-WKD2 (22E0720-06) Seawater	Sample	d. 05/21/22 07.	50 Rea	eived: 05/2	1/22 10.30	n				
E. Coli	ND	10	10	MPN/10			2052249	05/21/22 12:20	SM9223	
E. COII	ND	10	10	0 ml	10	CC	2052348	05/21/22 12:30 05/22/22 12:30	SIV19223	
Enterococcus	ND	10	10	"	"	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	
A1-3-R2-WKD2 (22E0720-07) Seawater	Sample	d: 05/21/22 08:	00 Rec	eived: 05/2	1/22 10:30	0				
Total Coliforms	41	10	10 N	MPN/100 ml	10	CC	2052348	05/21/22 12:30	SM9223	
								05/22/22 12:30		
E. Coli	ND	10	10	"	"	CC	"	05/21/22 12:30 05/22/22 12:30	"	
Enterococcus	41	10	10	"	"	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	
A1-1-R3-WKD2 (22E0720-08) Seawater	Sample	d: 05/21/22 08:	35 Rec	eived: 05/2	1/22 10:30	0				
Total Coliforms	41	10		MPN/100 ml	10	CC	2052348	05/21/22 12:30 05/22/22 12:30	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/21/22 12:30 05/22/22 12:30	"	
Enterococcus	10	10	10	"	"	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	
A1-2-R3-WKD2 (22E0720-09) Seawater	Sample	d: 05/21/22 08:	45 Rec	eived: 05/2	1/22 10:30	0				
Total Coliforms	41	10		MPN/100 ml	10	CC	2052348	05/21/22 12:30 05/22/22 12:30	SM9223	
E. Coli	ND	10	10	"	"	CC	"	05/21/22 12:30 05/22/22 12:30	"	
Enterococcus	20	10	10	"	"	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	
A1-3-R3-WKD2 (22E0720-10) Seawater	Sample	d: 05/21/22 08:	50 Rec	eived: 05/2	1/22 10:30	0				
Total Coliforms	410	10		MPN/100 ml	10	CC	2052348	05/21/22 12:30 05/22/22 12:30	SM9223	
E. Coli	201	10	10	"	"	CC	"	05/21/22 12:30 05/22/22 12:30	"	
Enterococcus	40	10	10	"	"	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	
FB-WKD2 (22E0720-11) Blank Water	Sampled:	05/21/22 09:00	Receiv	ved: 05/21/	22 10:30					
Total Coliforms	ND	10	10	MPN/10	10	CC	2052348	05/21/22 12:30	SM9223	
	.112		-0	0 ml	10	CC	2002010	05/22/22 12:30	Q.1.1.7 MMJ	
E. Coli	ND	10	10	"	"	CC	"	05/21/22 12:30 05/22/22 12:30	"	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

			Reporting					Sample Prepared		
Analyte	Result	MDL	Ĺimit	Units	Dilution	Analyst	Batch	Sample Analyzed	Method	Notes
FB-WKD2 (22E0720-11) Blank Water	r Sampled:		:00 Recei	ved: 05/21/	22 10:30					
Enterococcus	ND	10	10	MPN/10 0 ml	10	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	
A1-2-R2-DUP-WKD2 (22E0720-12) S	Seawater Sa	mpled: 05/2	21/22 07:51	Received	1: 05/21/22	2 10:30				
Total Coliforms	52	10	10 M	/IPN/100 ml	10	CC	2052348	05/21/22 12:30 05/22/22 12:30	SM9223	
E. Coli	10	10	10	"	"	CC	"	05/21/22 12:30 05/22/22 12:30	"	
Enterococcus	10	10	10	"	"	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	
OF2-WKD2 (22E0720-13) Seawater	Sampled: 05	5/21/22 07:0	0 Receive	d: 05/21/22	2 10:30					
Total Coliforms	58800	1000	1000 M	MPN/100 ml	1000	CC	2052348	05/21/22 12:30 05/22/22 12:30	SM9223	
E. Coli	3100	1000	1000	"	"	CC	"	05/21/22 12:30 05/22/22 12:30	"	
Enterococcus	19900	10	10	"	10	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	
OF2-DW-3 (22E0720-14) Seawater	Sampled: 05/	21/22 07:10	Received	: 05/21/22	10:30					
Total Coliforms	411000	1000	1000 N	MPN/100 ml	1000	CC	2052348	05/21/22 12:30 05/22/22 12:30	SM9223	
E. Coli	2000	1000	1000	"	"	CC	"	05/21/22 12:30 05/22/22 12:30	"	
Enterococcus	41100	100	100	"	100	CC	2052349	05/21/22 12:30 05/22/22 12:30	Idexx	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods - Quality Control

Analyte	Result	MDL	Reporting Limit	Units	Analyst	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2052348												
Blank (2052348-BLK1)					Prepared:	05/21/22	Analyzed:	05/22/22				
Total Coliforms	ND	1	1 N	MPN/100 n	nl CC							
E. Coli	ND	1	1	"	CC							
Batch 2052349												
Blank (2052349-BLK1)					Prepared:	05/21/22	Analyzed:	05/22/22				
Enterococcus	ND	1	1 N	MPN/100 n	nl CC							

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)

NR Not Reported

dry Sample results reported on a dry weight basis (if indicated in units column)

RPD Relative Percent Difference

MDL Method detection limit (indicated per client's request)

Page_1_of_2_

EMA LOG#:

CHAIN-OF-CUSTODY RECORD

22E072C - EnviroMatrix (Ex.) Analytical, Inc.

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

Client: Wood PLC			Requested Analysis
Attn: Kate Buckley, kate.buckley@woodplc.com			
Samplers(s): Wood			
Address: 9177 Sky Park Ct, San Diego, CA 92123			
		he	
Phone: 760-420-5769	Fax:	erole	
Email: kate.buckley@woodplc.com			
Billing Address: 9177 Sky Park Ct, San Diego, CA 92123			
Project ID: POSD - SIYB Bacteria Special Study		TTF	
Please include the following information on invoices: 1) Project #: 2015100116.0	1) Project #: 2015100116.0002B.EMA) Isto	
(2) PO #: N/A (3) Org: 3151 (4) GL: 573000			
D# Client Sample ID	Sample Sample Sample Container	olifoi intero	
1 REF-1-WKD2	22 Ofel C sea water) ×	
2 A1-1-R1-WKD2	sea water	i ×	
3 A1-2-R1-WKD2	sea water	×	
4 A1-3-R1-WKD2	-	╫	
5 A1-1-R2-WKD2	sea water	╀	
6 A1-2-R2-WKD2	5/21/2022 6750 sea water 1/Bact	×	
7 A1-3-R2-WKD2	sea water	╀┈	
8 A1-1-R3-WKD2	<u> </u>	╄	
9 A1-2-R3-WKD2	0845 sea water	┿	
10 A1-3-R3-WKD2	0850 sea water	┿	
Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water		4	DATE/TIME PECENYED BY
WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid	e, $O = Oil$, $L = Liquid$	Signature	Signature
Shipped By: a Courier a UPS a FedEx a USPS X Client Drop Off	o Off \Box Other	THE MAN TON THE	The Control of the Co
'Turn-Around-Time: □ Same Day □ 1 day □ 2 day □ 3 day □ 4 day	day 🗆 5 day 🗴 STD (7 day)	Company: MANGO CE	CS Comment of the Market Comment
'Reporting Requirements: Fax X PDF X Excel Geotracker/EDF	□ Hard	•	Cimpany.
'Sample Disposal: X By Laboratory a Return to Client: P/U or Delivery	□ Archive	Print	Drint
Sample Integrity	ity	Company:	Commany
Correct Containers: Yes No N/A	Containers Properly Preseved (Yes) No N/A	Signature	Signature
Custody Seals Intact, Yes No (VA)	Temp @ Receipt: - Son Con	Print	Print
COC/Labels Agree Yes No N/A Sampled By: Citienty EMA Au	Sampled By: Client EMA Autosampler	Company:	THE TANKS OF THE T
NOTE: Please Provide SWAMP EDD. Please report true numer	aric results between 10-2,400,000 MPN/100mL for	0 MPN/100mL for Total Coliform and Enterococcus using the Collect and Enterolect mothods	Company:
For each sample, conduct a 2x dilution for reportable MPN (RI 10 - 2 4 mil)	f (RI 10 - 24 mil)	TAYATTA ALL DETAILS ALL ALL ALL ALL ALL ALL ALL ALL ALL A	חות דיווגרוסובת וווכחוסת», וכאסכנוועכון, וטו כמכח.

or each sample, conduct a 2x dilution for reportable MPN (RL, 10 - 2.4 mil).

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

Page_2__ of__2_

CHAIN-OF-CUSTODY RECORD

EMA LOG#: Client: Wood PLC

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763 22E0720

-EnviroMatrix

-Environmatrix

Analysis
Requested Anal

1						L	F	L		ŀ			,						
Attn: K	Attn: Kate Buckley, kate.buckley@woodplc.com															_		L	
Sample	Samplers(s): Wood																		
Addres	Address: 9177 Sky Park Ct, San Diego, CA 92123							-											
						1.1.					***********								
Phone:	. 760-420-5769	Fax:				role	No:												
Email:	Email: kate.buckley@woodplc.com										·····								
Billing	Billing Address: 9177 Sky Park Ct, San Diego, CA 92123																		
Project	Project ID: POSD - SIYB Bacteria Special Study					Col													
Please	Please include the following information on invoices: 1) Project #: 2015100116,0002B. F.M.A.	Project #: 20	15100116	.0002B.F	MA														
(2) PO	(2) PO #: N/A (3) Org: 3151 (4) GL: 573000	,																	
		i) (mn,	100000												
ID#	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container # / Type													······································	
				Blank	246		<u></u>	+		1	$\frac{1}{1}$	1	+	1	1	-	1	+	
	FB-WKD2	5/21/2022	0400	water	🕻 / Bact	х													
2		5/21/2022	1540	sea water	🅻 / Bact	X					\vdash					L	1	$\frac{1}{1}$	L
3	0F2-WKD2	5/21/202	0360	٤	=	\ <u>\</u> \	×			L	╁		1	Ŧ	ļ	-	1	+	
4	0F2-DW-3	5/21/2022 07-10	07-10	=	=	X X	u			L	+	<u> </u>			-	╀	1	+	_
2						_					╀	\perp	‡	ļ		+	1	+	\downarrow
9	The second secon										┝	L	ļ	F	F	L		+	_
7											\vdash	L	ļ	ļ	-	╁	1	+	\perp
∞											+		ļ	ļ	L	H	1	+	
6											+	‡	‡	1	1	╁	1	+	_
10								L	L	I	+	\dagger	+	+	-	1	1	+	1
Matrix	Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water	W = Storm Wate,	_				KEL.	RELINQUISHED BY	HED BY		+	DATE/TIME	TIME	1	 "	PECEIVED BY	- \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	$\frac{1}{2}$	
WW = W	WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid	$O = Oil$, $L = Liq_1$	pin			Signature	M	The second second	AD-1	1000	Charles distinguish contrary		7	Signatura		1	I O O		
Shipped	Shipped By: a Courier a UPS a FedEx a USPS X Client Drop Off	off a Other				Print	25/2	10/03	KO	- Caramanana	المرازع مين	シング	" I have be shown however			10000	2		100
Turn-A	Turn-Around-Time: Same Day 1 day 2 day 3 day 4 day 5 day X STD (7 day)	· □ 5 day X.S.	TD (7 dav)			Company.	1000				Τ	ソかうこ	5		of arts of any			3	6000
Reporti	X PDF X Excel)F = Hard Com	v n EDT			Signature	. 1	*			+	The state of the s	منع والتعسير	Company:	oy:	120			
1Sample	ry = 2R	ivery - Archive	1			Print					Τ			Signature	re				
		,				Company					T			rrint					
Correct (Correct Containers: Yes No N/A	Containers Properly Preseved:	perly Preseve	ed: Yes No N/A	N/A	Signature					╁			Company	ay:				l
Custody	Custody Seals Intact: Yes No MA	Temp @ Receipt:	ot: 1	a significant		Print					Т			Signature	ъ				
COC/Lat	COC/Labels Agree: Yes No N/A	Sampled By: Client EMA Autosampler	lient EMA	Autosampl		Company					T			T. C				ı	
NOTE	NOTE: Please Provide SWAMP EDD Please renort true numeric recults heterings 10.7 Ann pan	recruite hetrice	2000	Target Cook		company					_			Company	ay:				
		Tours certical	VVE,4-V1 II	AT TAL OOO'	MLIVIOURE, FOR LORINORM and Enterococcus using the Collect and Enterolert methods, respectively, for each,	Otal Con	orm and	Enterococ	cus using	the Com	ert and E	nterolert m	ethods, res	pectively, 1	or each.				

For each sample, conduct a 2x dilution for reportable MPN (RL 10 - 2.4 mil).

²EMA reserves the right to return any samples that do not match our waste profile.

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.



27 May 2022

Wood Environment & Infrastructure Solutions, Inc.

Attn: Kate Buckley 9177 Sky Park Court San Diego, CA 92123

Project: POSD-Bacteria Shelter Island San Diego Bay/POSD-SIYB Bacteria Special Study/ Project:2015100116.0002A.EMA/Org:3151/GL:573000

Enclosed are the results of analyses for samples received by the laboratory on 05/23/22 11:43. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. Environmental Laboratory Network, Inc. certifies that this data is in compliance both technically and for completeness.

EMA Log #: 22E0758

Jenny Douglas

President/CEO

Environmental Laboratory Network, Inc.

dba EnviroMatrix Analytical

CA ELAP Certification #: 2564

Project Name: POSD-Bacteria Shelter Island San Diego Bay

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MC-1-W4	22E0758-01	Seawater	05/23/22 08:30	05/23/22 11:43
MC-2-W4	22E0758-02	Seawater	05/23/22 08:35	05/23/22 11:43
OF-1-W4	22E0758-03	Seawater	05/23/22 09:30	05/23/22 11:43
OF-2-W4	22E0758-04	Seawater	05/23/22 09:05	05/23/22 11:43
OF-3-W4	22E0758-05	Seawater	05/23/22 08:50	05/23/22 11:43
FP-W4	22E0758-06	Seawater	05/23/22 08:45	05/23/22 11:43
GD-W4	22E0758-07	Seawater	05/23/22 08:10	05/23/22 11:43
BS-W4	22E0758-08	Seawater	05/23/22 09:20	05/23/22 11:43
KK-W4	22E0758-09	Seawater	05/23/22 08:20	05/23/22 11:43
NK-W4	22E0758-10	Seawater	05/23/22 10:10	05/23/22 11:43
KB-W4	22E0758-11	Seawater	05/23/22 10:20	05/23/22 11:43
REF-1-W4	22E0758-12	Seawater	05/23/22 08:00	05/23/22 11:43
A1-1-W4	22E0758-13	Seawater	05/23/22 09:45	05/23/22 11:43
A1-2-W4	22E0758-14	Seawater	05/23/22 09:55	05/23/22 11:43
A1-3-W4	22E0758-15	Seawater	05/23/22 10:00	05/23/22 11:43
FB-W4	22E0758-16	Blank Water	05/23/22 10:25	05/23/22 11:43
A1-1-DUP-W4	22E0758-17	Sea Water	05/23/22 09:46	05/23/22 11:43
OF-2-DW-5	22E0758-18	Fresh Water	05/23/22 09:15	05/23/22 11:43
OF-1-DW-1	22E0758-19	Fresh Water	05/23/22 09:35	05/23/22 11:43

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reportin Limit	g Units	Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
MC-1-W4 (22E0758-01) Seawater	Sampled: 05/2	3/22 08:30	Received	1: 05/23/22 1	11:43					
Total Coliforms	63	10		MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	10	10	10	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	"	
Enterococcus	ND	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
MC-2-W4 (22E0758-02) Seawater	Sampled: 05/2	3/22 08:35	Received	l: 05/23/22 1	11:43					
Total Coliforms	134	10	10	MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	41	10	10	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	"	
Enterococcus	ND	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
OF-1-W4 (22E0758-03) Seawater	Sampled: 05/23	/22 09:30	Received	: 05/23/22 1	1:43					
Total Coliforms	193	10	10	MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	31	10	10	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	"	
Enterococcus	ND	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
OF-2-W4 (22E0758-04) Seawater	Sampled: 05/23	/22 09:05	Received	: 05/23/22 1	1:43					
Total Coliforms	2010	10	10	MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	259	10	10	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	"	
Enterococcus	1290	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
OF-3-W4 (22E0758-05) Seawater	Sampled: 05/23	22 08:50	Received	: 05/23/22 1	1:43					
Total Coliforms	1370	10	10	MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	20	10	10	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	"	
Enterococcus	ND	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
FP-W4 (22E0758-06) Seawater S	ampled: 05/23/2	2 08:45 R	eceived: 0	5/23/22 11:4	13					
Total Coliforms	697	10	10	MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reportii Limit		Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
FP-W4 (22E0758-06) Seawater	Sampled: 05/23/2	2 08:45	Received: (05/23/22 11:4	3					
E. Coli	41	10		MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
Enterococcus	ND	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
GD-W4 (22E0758-07) Seawater	Sampled: 05/23/2	22 08:10	Received:	05/23/22 11:	43					
Total Coliforms	201	10		MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	20	10	10	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	"	
Enterococcus	ND	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
BS-W4 (22E0758-08) Seawater	Sampled: 05/23/2	2 09:20	Received: (05/23/22 11:4	3					
Total Coliforms	122	10	10	MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	10	10	10	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	"	
Enterococcus	10	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
KK-W4 (22E0758-09) Seawater	Sampled: 05/23/2	22 08:20	Received:	05/23/22 11:	43					
Total Coliforms	20	10	10	MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	10	10	10	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	"	
Enterococcus	ND	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
NK-W4 (22E0758-10) Seawater	Sampled: 05/23/2	22 10:10	Received:	05/23/22 11:	43					
Total Coliforms	145	10	10	MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	30	10	10	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	"	
Enterococcus	10	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
KB-W4 (22E0758-11) Seawater	Sampled: 05/23/2	2 10:20	Received:	05/23/22 11:4	13					
Total Coliforms	132	10	10	MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	85	10	10	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	"	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
KB-W4 (22E0758-11) Seawater	Sampled: 05/23/2	22 10:20	Received: 05	/23/22 11:	43					
Enterococcus	10	10	10 N	1PN/100 ml	10	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
DEE 1 W// (22E0750 12) Coopie	ton Compled: 05/	22/22 00.0	M Dansiyad	05/22/22	11.42					
REF-1-W4 (22E0758-12) Seawa Total Coliforms	ND	10	10	MPN/10			2052354	05/23/22 13:30	SM9223	
Total Comornis	ND	10	10	0 ml	10	ΑZ	2032334	05/24/22 13:30	31417223	
E. Coli	ND	10	10	"	"	ΑZ	"	05/23/22 13:30	"	
								05/24/22 13:30		
Enterococcus	ND	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
A1-1-W4 (22E0758-13) Seawate										
Total Coliforms	145	10	10 N	IPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	ND	10	10	,,	"	4.77	,,	05/23/22 13:30	"	
L. Con	ND	10	10			ΑZ		05/24/22 13:30		
Enterococcus	10	10	10	"	"	AL	2052355	05/23/22 13:30	Idexx	
								05/24/22 13:30		
A1-2-W4 (22E0758-14) Seawate	er Sampled: 05/23	3/22 09:55	Received: (5/23/22 11	1:43					
Total Coliforms	52	10	10 N	IPN/100 ml	10	ΑZ	2052354	05/23/22 13:30	SM9223	
								05/24/22 13:30		
E. Coli	20	10	10	"	"	ΑZ	"	05/23/22 13:30 05/24/22 13:30	"	
Entoroggogg	ND	10	10	"	"		2052255		11	
Enterococcus	ND	10	10			AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
A.1. 2. W.4. (22F)0FF0 1F) C	C 1 1 05/03	. (22 10 00	D . 1.	5/02/02 1:	. 42					
A1-3-W4 (22E0758-15) Seawate						A 17	2052254	0.5/0.2/0.3/0.00	G) (0222	
Total Coliforms	74	10	10 N	1PN/100 ml	10	ΑZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	10	10	10	,,	"	ΑZ	"	05/23/22 13:30	"	
								05/24/22 13:30		
Enterococcus	ND	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
								03/24/22 13.30		
FB-W4 (22E0758-16) Blank Wa	ter Sampled: 05/	23/22 10:2	5 Received	05/23/22	11:43					
Total Coliforms	ND	10	10	MPN/10	10	AZ	2052354	05/23/22 13:30	SM9223	
				0 ml				05/24/22 13:30		
E. Coli	ND	10	10	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	"	
) ID	10	10	"	"	AL	2052355	05/23/22 13:30	Idexx	
Enterococcus	ND									

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods

Analyte	Result	MDL	Reporting Limit	g Units	Dilution	Analyst	Batch	Sample Prepared Sample Analyzed	Method	Notes
A1-1-DUP-W4 (22E0758-17) Sea Water	Sampled	1: 05/23/22 (9:46 Rec	eived: 05/2	3/22 11:43	1				
Total Coliforms	75	10	10	MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	10	10	10	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	n	
Enterococcus	ND	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
OF-2-DW-5 (22E0758-18) Fresh Water		: 05/23/22 0			3/22 11:43					
Total Coliforms	24200	10	10	MPN/100 ml	10	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	1010	10	10	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	"	
Enterococcus	5790	10	10	"	"	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	
OF-1-DW-1 (22E0758-19) Fresh Water		: 05/23/22 0			3/22 11:43					
Total Coliforms	435000	1000	1000	MPN/100 ml	1000	AZ	2052354	05/23/22 13:30 05/24/22 13:30	SM9223	
E. Coli	13400	1000	1000	"	"	AZ	"	05/23/22 13:30 05/24/22 13:30	n	
Enterococcus	3870	10	10	"	10	AL	2052355	05/23/22 13:30 05/24/22 13:30	Idexx	

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Microbiological Parameters by Standard Methods - Quality Control

Analyte	Result	MDL	Reporting Limit	Units	Analyst	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2052354												
Blank (2052354-BLK1)					Prepared:	05/23/22	Analyzed:	05/24/22				
Total Coliforms	ND	1	1 N	/IPN/100 n	nl AZ							
E. Coli	ND	1	1	"	AZ							
Batch 2052355												
Blank (2052355-BLK1)					Prepared:	05/23/22	Analyzed:	05/24/22				
Enterococcus	ND	1	1 N	/IPN/100 n	nl AL							

Project Name: POSD-Bacteria Shelter Island San Diego Bay

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)

NR Not Reported

dry Sample results reported on a dry weight basis (if indicated in units column)

RPD Relative Percent Difference

MDL Method detection limit (indicated per client's request)

Page 1 of 2 3

CHAIN-OF-CUSTODY RECORD 2 E0 7 | - EnviroMatrix (A) Analytical, Inc.

EMA LOG#

Client: Wood PLC

9590 Chesapeake Dr, Suite 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

RECEIVED BY 16 - 38 AC 16 NOTE: Please Provide SWAMP EDD. Please report true numeric results between 10-2,400,000 MPN/100mL for Total Coliform and Enterooccus using the Colifert and Enterolert methods, respectively, for each Print Joy Company: Signature Company Signature Requested Analysis DATE/TIME 5/25/27 9411 RELINQUISHED BY Print Kain BUCKE Signature W Out \overline{X} Enterolert ∃TM □ Enterococcus, × × × × × × × Company: Company: Signature Company: Signature Print Print \underline{X} Total (Colilert) × 1/Bact 1 / Bact 08 20 sea water 1 / Bact # / Type 1 / Bact Sample | Container 1 / Bact 1 / Bact 1 / Bact 3/Bact 1 / Bact / Bact Please include the following information on invoices: 1) Project #: 2015100116.0002A.EMA Containers Properly Preseved: Kes No N/A Sampled By: Client EMA Autosampler Matrix 0835 sea water 0930 sea water 5/2**3**/2022 | **0405** | sea water Temp @ Receipt: イダインディア **5820** sea water 08 50 sea water 5/2**3/**2022 | **08 45** | sea water sea water 5/2**3**/2022 **09 20** sea water 5/23/2022 | 19/0 | sea water Sample 5/2**3**/2022 100/10 Time Turn-Around-Time: a Same Day a I day a 2 day a 3 day a 4 day a 5 day X STD (7 day) WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water Sample Disposal: X By Laboratory a Return to Client: P/U or Delivery a Archive 5/23/2022 5/23/2022 5/23/2022 5/23/2022 5/2/2022 Sample Shipped By: a Courier a UPS a FedEx a USPS X Client Drop Off a Other Fax: Sample Integrity Billing Address: 9177 Sky Park Ct, San Diego, CA 92123 (3) Org: 3151 (4) GL: 573000 Address: 9177 Sky Park Ct, San Diego, CA 92123 Attn: Kate Buckley, kate.buckley@woodplc.com Project ID: POSD - SIYB Bacteria Special Study Client Sample ID Email: kate.buckley@woodplc.com Custody Seals Intact: Yes No KIA Correct Containers Ves No N/A COC/Labels Agree: (Fest No N/A Phone: 760-420-5769 Samplers(s): Wood OF-3-W4 MC-1-W4 MC-2-W4 OF-1-W4 OF-2-W4 GD-W4 KK-W4 BS-W4 NK-W4 FP-W4 (2) PO #: N/A # 4 S 9 6 10 7 ∞

For each sample, conduct a 2x dilution for reportable MPN (RL 10 - 2.4 mil).

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relarquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

Page_2_ of 2

CHAIN-OF-CUSTODY RECORD CASE Separate Dr., Suite 5, San Diego, CA 92123 - Phone (838) 560-7717 - Fax (838) 560-7763

Client: Wood PLC

Requested Analysis

RECEIVED BY COC/Labels Agree! Yes) NO +WA

NOTE: Please Provide SWAMP EDD. Please report true numeric results between 16-2,400,000 MPN/100mL for Total Coliform and Enterococcus using the Colliert and Enterolert methods, respectively, for each Company: Signature ompany: ignature Signature Print ... Print DATE/TIME 012317 951 RELINQUISHED BY Print FOAT Signature 🚅 X Enterolert □ MTF Enterococcus, × × × × Company: Company: Signature Signature Print Print X Total (Colilert) × l/Bact Sample | Sample | Container Matrix | # / Type / Bact 🏅 / Bact 1 / Bact 🅻 / Bact 3 / Bact A / Bact Please include the following information on invoices: 1) Project #: 2015100116.0002A.EMA Containers Properly Preseved: (es) No N/A Temp @ Receipt: M T N. 5184 1020 sea water 030.2 sea water 5/2**2**/2022 | 0445 | sea water 5/2**3**/2022 **0955** sea water 7946 sea water sea water water Blank Time 000/ BSS Turn-Around-Time: 🗆 Same Day 🗀 1 day 🗅 2 day 👝 3 day 🗅 4 day 👝 5 day 🛚 🗴 STD (7 day) Reporting Requirements: DFax X PDF X Excel Geotracket/EDF DHard Copy DEDT WW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid Sample Disposal: X By Laboratory 2 Return to Client: P/U or Delivery Archive Matrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water 5/23/2022 5/22/2022 5/23/2022 5/23/2022 5/22/2022 Sample Shipped By: a Courier a UPS a FedEx a USPS X Client Drop Off a Other Fax: Sample Integrity Billing Address: 9177 Sky Park Ct, San Diego, CA 92123 (3) Org: 3151 (4) GL: 573000 Address: 9177 Sky Park Ct, San Diego, CA 92123 W-DD-N-WA AI-I-DN-WY Attn: Kate Buckley, kate buckley@woodplc.com Project ID: POSD - SIYB Bacteria Special Study Client Sample ID Email: kate.buckley@woodplc.com ustody Seals Intact: Yes, No. N/A Correct Containers: Yes No N/A Phone: 760-420-5769 Samplers(s): Wood REF-1-W4 A1-3-W4 A1-1-W4 A1-2-W4 KB-W4 FB-W4 (2) PO #: N/A # @ 4 7 9

For each sample, conduct a 2x dilution for reportable MPN (RL 10 - 2.4 mil).

Additional costs may apply. Please note there is a \$35 minimum charge for all clients

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.

Page 2 of 2

Client: Wood PLC

CHAIN-OF-CUSTODY RECORD

CHAIN-OF-CUSTODY RECORD

Solve 5, San Diego, CA 92123 - Phone (858) 560-7717 - Fax (858) 560-7763

1	HOOFI EC										Dogwood	Dogwood A 1	•					
Attn: K	Attn: Kate Buckley, kate.buckley@woodnlc.com					F	L	F	L		Lech mes	on Allai	yaıs					
Sample	Samplers(e): Wood																	
dund	cas(s). Wood																	
Addres	Address: 9177 Sky Park Ct, San Diego, CA 92123																	
Phone:	Phone: 760-420-5769	Fax:				olon												
Smooth.					-		(21)											
Citian.	Citizati: Nate: Duckley@woodpic.com																	
Silling	Billing Address: 9177 Sky Park Ct, San Diego, CA 92123						_											
Project	Project ID: POSD - SIYB Bacteria Special Study													-				
Plasca	ب													-				
(2) PO	Trease include the 1010 wing information on invoices; 1) Project #; 2) PO #: N/A (3) Org: 3151 (4) GL: 573000	Project #:																
		ç										•••						
# 0	Client Sample ID	Sample Date	Sample Time	Sample Matrix	Container	olilo neter							-					
1	0F-2-DW-5	5/23/22	DAIC		1001	>		+	+	1	+		1		+			
2	1/30/1/40	21212				4 >	1	$\frac{1}{1}$	+	1								
3		77767		100	1 WRG	<u>시</u>	1	-	+	1								
-																	L	
-															F	ļ	-	
^									-			1	1	1	†	1	$\frac{1}{1}$	_
9												ļ			+	1	-	
7							ļ		+	1			Ţ	1	+	1	-	
8							‡	I	+	1	+	+	1		+		1	
6							1		+	1	+	1	1					
10						\pm	#	+	+	1								
fatrix C	fatrix Codes: A = Air, DW = Drinking Water, GW = Groundwater, SW = Storm Water	V = Storm Water						DEI INOTHETIED DY										
VW = W	VW = Wastewater, S = Soil, SED = Sediment, SD = Solid, T = Tissue, O = Oil, L = Liquid) = Oil, L = Liqu	þį			Signothra	NEL	ISTO ON THE	IED BY		PA	DATE/IIME	-		RECEIVED BY	3Y		
hipped	hipped By: a Courier a UPS a FedEx a USPS X Client Drop Off	ff a Other				Print	Print 12 12 12				71215	1 garden	Signature	urre				
Furn-An	furn-Around-Time: a Same Day alday a 2 day a 3 day a 4 day	o S day	V CTD (7 day)			1	3		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		T	*	Print	H	1 Vacal	A ROBERT		_
Reporti	X PDF X Excel Geoffra	Hard	L (/ uay)			Company:	3	10001			-) //		Company:	any:	(SA)	A. Carlo		
Sample	ı z					Signature							Signature	ure				
	O IVermin 10	very 🗆 Archive				Print							Print					
	Sample Integrity					Company							Сопрапу	any:				_
Orrect	orrect Contamers: yes no N/A	Containers Properly Preseved	erly Preseve	ed: Yes No N/A	N/A	Signature							Sionature	11170				
ustody:	ustody Seals Intact: Yes No WA	Temp @ Receipt:	t. 7 (8)	Jane Car	7	Print					T			2110				
OC/Lab	OC/Labels Agree (Yes) No N/A	Sampled By: (Clien) EMA	lien EMA	Autosampler	37	Company:					Ţ		TI C					
CIE:	OIE: Please Provide SWAMP EDD. Please report true numeric results between 10-2,400,0	results between	1 10-2,400,	000 MPN	100mL, tor 1	otal Colif	orm and	nterococo	ne nemer	he Colife	200 MPN/100mL for Total Coliform and Enterococcus using the Colifort and Description		Company.	any:				_
or each co.	a company of the first of the second of the							2000	Since en		t and enteroien	memods, re	spectively,	tor each.				

each sample, conduct a 2x dilution for reportable MPN (RL 10 - 2.4 mil).

Additional costs may apply. Please note there is a \$35 minimum charge for all clients.

²EMA reserves the right to return any samples that do not match our waste profile.

NOTE: By relinquishing samples to EMA, Inc., client agrees to pay for the services requested on this COC form and any additional analyses performed on this project. Payment for services is due within 30 days from date of invoice. Samples will be disposed of 7 days after report has been finalized unless otherwise noted. All work is subject to EMA's terms and conditions.